
Table of Contents

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Table of Contents

Department for international development education papers

List of other DFID education papers available in this series

Other DFID education studies also available
1 Introduction

1.1 Reading and English in education
1.2 Reading and second language learning
1.3 Outline of research

2 Background: Malawi and Zambia

2.1 General
2.2 Linguistic background
2.3 Educational background

2.3.1 Zambia
2.3.2 Malawi
2.3.3 Teacher training

3 Teaching reading in Malawi and Zambia

3.1 Initial reading in Zambia
3.2 Initial reading in Malawi
3.3 Beyond initial reading
3.4 Reports on reading lessons observed

3.4.1 Malawi
3.4.2 Zambia
3.5 Observations on lessons

4 Reading research: 1992

4.1 Description

4.1.1 Aims
4.1.2 Test methods
4.1.3 Schools and year levels
4.1.4 The testees
4.2 Results of English test

4.2.1 General
4.2.2 Comments on general English test results
4.2.3 School year
4.2.4 Gender effects
4.2.5 Location effects
4.2.6 Gender and location effects

4.3 Results of local language tests

4.3.1 Mean scores by year
4.3.2 Pupils from different language backgrounds
4.3.3 Correlations of English and local language results

5 The 1994 research

5.1 Description

5.1.1 Aims
5.1.2 Methods
5.1.3 Schools and testees
5.1.4 Administration

5.2 Results of the English reading test

5.2.1 General
5.2.2 Overall means
5.2.3 Location (urban/rural)
5.2.4 Gender
5.2.5 Location and gender

5.3 Results of the local language reading tests

5.3.1 Overall results
5.3.2 Malawian pupils results on Zambian test
5.3.3 Location and sex in local language 1994 results
5.3.4 Testees from non-Chichewa or non-Nyanja speaking
6 Individual reading sessions

6.1 Structured interviews and individual reading sessions
6.2 The subjects
6.3 Selection of issues for interviews
6.4 Findings from interviews

   6.4.1 Age of starting
   6.4.2 Pupil absences
   6.4.3 Preferred language for reading
   6.4.4 Family socio-economic status
   6.4.5 Family composition
   6.4.6 Literacy in the home
   6.4.7 Books per household
   6.4.8 Preferences in text types

7 Individual reading sessions

7.1 General description
7.2 The English reading passage
7.3 Findings of individual English reading investigation

   7.3.1 Understanding the gist of the text
   7.3.2 Direct reference questions
   7.3.3 Inference questions
   7.3.4 Difficulties in the text reported by pupils
   7.3.5 Guessing based on the appearance of words
   7.3.6 Use of context
   7.3.7 Inferencing word meaning from world knowledge

7.4 The local languages reading passage
7.5 Findings of individual Malawian reading sessions
7.6 Findings of individual Zambian reading sessions
8 Discussion

8.1 Main findings
8.2 Standard and non-standard Nyanja in Zambia
8.3 Accounting for local language differences
8.4 Implications of findings for learning in English across the curriculum
8.5 Possibilities for improvement in education and reading

8.5.1 Improving English reading
8.5.2 Rethinking the role of English?

8.6 Conclusion

References

Appendix A - Approaches to teaching initial reading
Appendix B - Transcript of two lessons
Appendix C - Texts for two lessons
Appendix D - Extracts from English "word find" reading test, 1992
Appendix E - Extracts from Chichewa and Nyanja reading tests 1992
Appendix F - Extracts from English reading test, 1994
Appendix G - Extracts from Chichewa and Nyanja tests, 1994
Appendix H - Histograms of 1994 test results
Appendix I - Text for Chichewa/Nyanja individual reading
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1 Introduction

1.1 Reading and English in education
1.2 Reading and second language learning
1.3 Outline of research

1.1 Reading and English in education

Although literacy is generally considered necessary for national well-being, and for individual opportunity, it is increasingly the case that in many countries the ability to read in a local language is no longer enough. For stronger global integration, and enhanced individual opportunity, it is not simply the ability to read, but the ability to read in a world language that is important. The world language of choice in many countries is typically English. One may have misgivings at the dominance of English, or indeed, the "English equals education" attitude in many developing countries. One may also question the consistency of education systems which, on the one hand, proclaim the value of child-centredness, while on the other hand employing a language which the vast majority of their children do not understand. However, the hard fact remains that ability in English, especially in reading English, will for the foreseeable future, be a particularly empowering skill in the global village.

"Education for all" implies "reading for all", for reading is not only a skill to be mastered, but also a crucial tool for further learning. Learning to read is necessary in order for reading to learn to take place. This observation, however, begs many questions, such as: What happens if the formal education system tries to teach children to read in English instead of in their first language? What happens if the formal education system tries to teach children to read in both English and their first language? What classroom approaches are to be adopted for first and second reading? Can students learn other subjects in the curriculum effectively through reading in a second language?

The aim of this monograph is to provide information relevant to answering these questions. It describes research that took place in primary schools in two developing countries which operate contrasting policies, Malawi and Zambia. In Malawi the policy is to teach through the medium of a major local language, Chichewa, for the
first 4 years, with English as a subject; in Zambia on the other hand, the policy is to teach everything through the medium of English from the beginning of year 1, with a local language taught as a subject. Although this report deals with Malawi and Zambia, the findings may be relevant to the teaching and assessment of reading in many comparable developing countries, where the teaching of literacy to large numbers of children in difficult circumstances is an educational necessity, and where primary schooling is, for the great majority, the only formal education and hence the chief avenue to the acquisition of reading.

1 The policy described for both Malawi and Zambia was that in operation at the time of this research.

This paper first describes the methods and classroom approaches to reading in Malawi and Zambia, then reports on reading tests carried out at years 3, 4, 5 and 6 in both English and the respective local languages (Chichewa in Malawi, Nyanja in Zambia) in rural and urban schools. In addition a sample of pupils of differing English reading proficiencies were interviewed, and participated in individual reading investigations. The findings confirm misgivings, expressed, for example, in the 1992 Zambian Ministry report *Focus on Learning* that for the majority of pupils in primary schools levels of reading in English are inadequate for learning to take place. The report closes with some suggestions as to how improvements might be brought about, while noting that the effect of the suggestions will necessarily be limited by factors outside the classroom, and in particular by the economic conditions of teachers and of pupils' families.

1.2 Reading and second language learning

The definition of reading adopted in this monograph is that it is a deliberate process of looking at and understanding written language. We focus here on what might be termed the "basic" level, and examine the extent to which pupils understand relatively simple texts (while acknowledging that the reading process itself is not simple, and that the nature of understanding is contentious). In order to understand a text the reader must bring to bear relevant types of knowledge, among which are:

- knowledge of the language of the text
- knowledge of the relevant script and orthographic conventions
- relevant knowledge of the world (e.g. knowledge appropriate to the topic or cultural context)

Knowing the language of the text is fundamental in helping the learner learn to read. It enables learners to guess at the identity of words with or without using graphic clues.
and it may also help them guess the meaning of words from context. However, if learners have little knowledge of English, then a careful approach is needed if they are to learn to read successfully in the language. Initial reading approaches employed in the UK assume that the learner already knows the language and accordingly focus upon decoding, taking for granted that the learner will understand what has been decoded. These approaches have to be modified in teaching initial reading of English as a second language.

Second language learning is a process that takes place over time, whether in a formal classroom setting, or an informal out-of-class setting. The extent of learning depends in part on the duration, amount and richness of the input (i.e. what the learner hears or reads), and also the type of language activities in which learners engage - e.g. repeating phrases, listening to the teacher, singing songs, writing stories, etc. (Individual learner factors such as motivation, and also health, will, of course, also affect learning, but they are usually outside the concerns of conventional "educational" projects.) Language learning, especially in its early stages, is not error free, but characterised by deviances due in to insufficient input, false generalisations, and interference from the mother tongue. At any stage in learning "fossilisation" may occur - in effect, learning ceases, and the learner's language remains at a level below that of fluent users of the language. While there is disagreement on the precise implications of such factors for teaching a second language, there is agreement that the following factors play a role:

(i) teacher's target language proficiency
(ii) appropriacy of materials
(iii) amount of time devoted to the language
(iv) appropriacy of teaching methods
(v) degree of learner motivation
(vi) class size
(vii) provision of general amenities - weather-proof classrooms, desks, drinking water etc.

These factors are further mediated by contextual factors that might be summarised as the congruence of the educational operation with local socio-cultural norms. Such norms would include social values, attitudes towards authority figures and peers, and views concerning appropriate matter for formal education. Education does not take place in a socio-cultural vacuum, and educational approaches which are "transplanted" from one country to another may well fail for lack of appreciation of such differences.

1.3 Outline of research

The research on which this monograph is based was carried out in Malawi and Zambia in 1992 and 1994. The principal objective in 1992 was to characterise the teaching of
reading in primary schools, and also to assess the reading proficiency of the pupils in English and the local language, namely Chichewa in Malawi and Nyanja in Zambia. A series of classroom observations were carried out, and group reading tests were administered in English and the local language at years 3, 4 and 6 in five schools in each country; in all over 900 pupils were tested. The 1994 research followed this up by testing reading proficiency at year 5, with over 500 pupils in 6 different schools in each country. However, the 1994 research also carried out a more "in-depth" investigation on a sample of high-scoring and low-scoring individuals. They were interviewed on their family background and reading practices, and then read short passages in English and the local language, discussing problems that arose in the reading with Malawian and Zambian research assistants.
2 Background: Malawi and Zambia

2.1 General
2.2 Linguistic background
2.3 Educational background

2.1 General

Malawi and Zambia are both southern African countries, with a common border of some 300 miles. They have to some degree shared social, cultural and historical backgrounds, and both were British colonies in the late 19th century, gaining independence in the 1960's. Malawi is a predominantly rural country with an estimated 10% to 15% of the population (personal communication, MoE, Malawi, 1995) living in urban areas, principally Lilongwe, the capital and Blantyre, the commercial centre. Zambia is more heavily urbanised with some 43% of the population in urban areas (Chidumayo et al, 1989: 7) especially in the copper mining area, and the capital, Lusaka.

Both Malawi and Zambia are economically weak, with limited infrastructures, particularly outside the urban areas. The bulk of the primary education budget in both countries is spent on salaries (in Zambia, 97% [MoE, Zambia, 1992: v]). This means that there is very little remaining to be spent on book provision or school maintenance. Urban schools usually have running water, and may have electricity. Rural schools generally have neither, water being drawn from a well or bore hole.

Poverty is widespread in both countries, and affects a child's education in a number of ways: firstly, children may not go to school if the family has insufficient food; secondly, there are the direct costs of school attendance (books, pens, etc.); thirdly, there is the indirect cost of attendance at school in that the child's productive work (e.g. herding, casual labour, hawking etc.) is lost to the family. In terms of belief and practices, the majority of people in both countries are extremely religiously observant: the influence of Christianity is strong, and apparent in most schools, although both countries (particularly Malawi) have a significant proportion of Muslims. There are nonetheless varying degrees of adherence to traditional beliefs and practices.
There does not appear to be any published work on literacy practices in society generally in Malawi or Zambia. Informal surveys on reading among primary school teachers in Malawi and Zambia suggest two things: first that relatively little non-work related reading takes place, often because material simply is not available; second, within the reading that does take place, reading of the bible or religious books is overwhelmingly the most frequently claimed activity, particularly among female teachers. This may be done in English, or in a local language (particularly in Malawi). The reasons put forward for such religious reading include "for consolation", or "to understand God's message better". Reading newspapers comes second, with most teachers reading them "for information". Light romantic fiction also appears to be popular when teachers can obtain it, but in practice most reading is oriented towards information or self-improvement. There appears to be little reading for enjoyment, although this may be a function of low salaries combined with a scarcity of books, rather than an indication of preferences.

2.2 Linguistic background

Kashoki (1990: 109) claims that Zambia has "approximately 80 Bantu dialects" grouped into "slightly over 20 more or less mutually unintelligible clusters or 'languages'". Seven languages are officially designated as subjects to be studied in schools. These seven, and the proportion of speakers of each, are estimated (Kashoki, 1990: 117) to be as follows:²

² The names provided here are strictly speaking those of the peoples (Chewa, Bemba, Lozi etc.). To indicate the language of a people the prefix Chi- (or Ici-, Si-) is used giving Chichewa, Icibemba, Silozi etc. The convention in Zambia is not to use these prefixes when writing in English, whereas in Malawi they are used. This text follows Zambian practice when discussing Zambia, and Malawian when discussing Malawi.

Table 1: Estimated Distribution of Seven Officially Designated Zambian Languages

<table>
<thead>
<tr>
<th></th>
<th>Bemba</th>
<th>Kaonde</th>
<th>Lozi</th>
<th>Lunda</th>
<th>Luvale</th>
<th>Nyanja</th>
<th>Tonga</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>30.8%</td>
<td>3.4%</td>
<td>9.3%</td>
<td>2.9%</td>
<td>5.9%</td>
<td>16.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>L1+L2</td>
<td>56.2%</td>
<td>7.1%</td>
<td>17.2%</td>
<td>5.3%</td>
<td>8.1%</td>
<td>42.1%</td>
<td>23.2%</td>
</tr>
</tbody>
</table>

L1 = first language speakers
L1+2 = first and second language speakers
English is the L1 of 0.1 % of the population, mainly white.

There are said to be 35 indigenous language varieties in Malawi (Sichinga, 1994), while Grimes (1992: 295-297) lists 12. Discrepancies are due to difficulties in classification. The estimated distribution of the principal languages is as follows (Sichinga, 1994):

**Table 2: Estimated Distribution of Three Main Malawian Languages**

<table>
<thead>
<tr>
<th></th>
<th>Chichewa</th>
<th>Chiyao</th>
<th>Chitumbuka</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>27%</td>
<td>19%</td>
<td>11%</td>
<td>43%</td>
</tr>
<tr>
<td>L1+2</td>
<td>80%</td>
<td>20%</td>
<td>15%</td>
<td>not available</td>
</tr>
</tbody>
</table>

Chichewa and Nyanja are different labels - which came about for historical and political reasons - for what is essentially the same language (Kashoki, 1978: 45; Kishindo, 1990: 59). It is spoken by the Chewa people on both sides of the border, as well as by many non-Chewa. There are minor differences between the "standard" forms of the languages in spelling, pronunciation and vocabulary.

### 2.3 Educational background

#### 2.3.1 Zambia

#### 2.3.2 Malawi

#### 2.3.3 Teacher training

### 2.3.1 Zambia

Primary education in Zambia consists of a 7 year programme available to all children between the ages of 7 and 14. Many children, however, especially in rural areas, start school later. It is in principle free although in practice families may have to find money for writing materials, or for the parent-teacher association. In some cases teachers insist on children coming to school in uniform and shoes, both of which items represent a significant outlay for poorer families. In addition lack of classroom capacity means that many thousands of children simply cannot get a place in a government school. Durstan (1996) cites a compound school in Lusaka where 1,500 children applied for 200 places in year 1. According to the 1990 census an estimated 656,000 children aged 7 to 13 are not in school (cited in Durstan, 1996: 18).

Classes in urban areas average around 50, but are smaller in rural areas. About 15% of teachers are untrained (MoE [Zambia] 1992: 163), and these are concentrated in rural
areas. Classroom shortages mean that many classes are held outside; urban schools have 2 or even 3 shifts daily to cope with numbers. Many classes have inadequate book supplies with the teacher often having the only book.

Material conditions in schools are very poor, particularly rural and urban compound schools. Doors are frequently missing, windows invariably broken or absent, and the roof sheeting has sometimes disappeared. Urban schools have piped water, and a handful have electricity; rural schools generally have neither, water being obtained from a well or bore hole, or in some instances carried in by the children. The number of desks is normally inadequate, with pupils frequently sitting on the floor (MoE [Zambia], 1992: 19). Theft and vandalism are widespread. Although conditions have improved since the early nineties, material provision remains generally poor, and many schools are in a dilapidated condition. However, there are exceptions, and much seems to depend upon the commitment of the head teacher, and support of the local community.

At the end of grade 7 there is a national examination which selects pupils to go on to secondary schooling. In 1991/92, 12.7% of pupils went on to conventional secondary school (grades 8-12), while a further 13.6% went to basic school (grades 8 - 12). Basic schools are attached to an existing primary school, and are generally held to offer "an education that is of inferior quality" (MoE, Zambia, 1992: 72).

English is, officially, the language of instruction in primary education from year 1 for all subjects apart from spiritual instruction and the teaching of the local language itself (one of the seven mentioned above). In practice little importance is accorded to teaching local languages largely because they do not feature in the selection examination for secondary school (MoE [Zambia], 1992: 45). Nonetheless local languages are "unofficially" used for instruction in the classroom, especially in the early years, and the extent of English usage varies. The typical pattern in many schools is that English, being the language of the textbooks, is used for reading, writing, and answering questions from the textbook, while a local language is often used for other purposes, such as explanations and instructions.

2.3.2 Malawi

There are 8 years of primary schooling in Malawi. Children may officially start at age 6, although in practice there is considerable variation and children aged 16 may occasionally be found in the first year. Until 1994 children paid school fees which varied in amount depending upon year and rural/urban location, but in no case amounted to more than the equivalent of £2 ($3) per year. From 1995 free primary education was instituted. However, as in the case of Zambia, there may be "hidden extras" which inhibit enrolment, while many rural children live too far from school to
make the daily journey. Classes numbers, particularly in urban areas, are enormous, with over 100 pupils per class being frequent. The mean class size for 5 schools visited in 1992 was 99.3 (Williams, 1993a: 7), while between 1994 and 1995 there was a 51% increase in the school population (1,895,400 to 2,860,800).

As in Zambia, schools are in very poor material condition. Many schools have no windows, door or roof sheeting, especially in rural areas. Electricity is extremely rare. Given the enormous size of classes, there are, unsurprisingly, shortages of books and desks. In 1995 there was a 26,500 shortfall in classrooms, which means many classes take place out of doors. There are also large numbers of temporary classrooms, constructed by the pupils of grass and bamboo. Such classrooms normally do not have desks. Theft and vandalism are reported to be an increasing problem.

The language of instruction for the first 4 years is Chichewa, with English as a school subject3; for the last 4 years English becomes the language of instruction with Chichewa as a subject. In practice some teachers are said to introduce English from year 3, and New Malawi Arithmetic (n.d.) is in English from that year onwards, according to Mchazine (1989: 3). However, officially it is only from year 5 onwards that English is the medium of instruction, with Chichewa taught as a subject. As in the case of Zambia, local languages are in fact used to varying degrees throughout the primary school.

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3 The time allocation for English at the time of this research was 5x30 minutes in years 1 and 2, rising to 7 x 30 minutes in years 3 and 4.

### 2.3.3 Teacher training

According to the Ministry of Education [Malawi] (1991: 30) some 30% of teachers are untrained, but with massive recruitment since 1995 of teachers, the true proportion of conventionally fully trained teachers is uncertain. Most of those that were trained in the past had received a full time two-year training course in one of the seven teacher training colleges, with a smaller number following an intensive one year programme, or a three year vacation only sandwich course. However, with the introduction of free primary education, emergency programmes have been put in place, including the MoE's Malawi Integrated Inservice Teacher Education Project, in response to the sudden expansion.

In Zambia primary teachers are trained over two years in one of 10 Teacher Training Colleges (or in the one in-service teacher training college). In 1990 some 15% of the teaching strength of approximately 35,000 was untrained.

In both Malawi and Zambia the normal teacher training college syllabuses are closely
tied to the teacher's guide for each subject, and this rigid approach means that teachers
may not have been prepared to be flexible in their response to the problems that
individual children may face. In brief "the development of problem solving skills,
essential to the student (teacher) who is to cope with difficult and diverse classroom
conditions is neglected" (MoE, Zambia, 1992: 10.4).
3 Teaching reading in Malawi and Zambia

3.1 Initial reading in Zambia
3.2 Initial reading in Malawi
3.3 Beyond initial reading
3.4 Reports on reading lessons observed
3.5 Observations on lessons

3.1 Initial reading in Zambia

Initial reading in Zambia is carried out in English, a language that most children have very little or no knowledge of when they start school. From the early seventies to the early nineties the Zambia Primary Course (ZPC) was used. The principal approach to reading was the look and say (whole word and whole sentence) approach, with a certain amount of phonics in the second year (see Appendix A for an explanation of the various approaches to initial reading). From the early nineties the new Zambia Basic Education Course (ZBEC) was introduced. In this course "the main method used in Grade 1 is the "look and say" method, as in the former course, but phonics is also introduced in a very simple way" (Grade 1, Teacher's Guide A, p. 72).

In the early stages there is a great deal of matching single words to pictures of objects and labelling of aspects of the classroom (chair, wall etc.). Reading and writing are integrated in the sense that pupils write down words and sentences that they have read. However, despite the new course paying more attention to reading as a "meaning making" process, observation suggests that many teachers continue to require children to learn by heart entire sentences without knowing what they mean. Furthermore rather than looking at written words, recognising them, then reading them aloud, many pupils memorise sentences as sequences of sound which they utter when cued by a memorised visual sequence.

Thus in one classroom a child correctly recalled the sentence "They are cooking" while looking at the ceiling, only to be admonished by the teacher who said "When you say
the words, you have to look at them. That is what reading is." In fact, true reading is not saying the words while simultaneously looking at them, but rather looking at the words, and recognising them, which implies understanding. Simply saying words while simultaneously looking at them, may, to a casual observer, be indistinguishable from "real" reading aloud. However, it is no more than a "reading- like" activity, where there is no real processing of meaning. It is doubtful whether this activity contributes to the eventual acquisition of the reading skill, especially if pupils do not understand what they have memorised.

Initial reading in Zambian languages appears to occur extremely infrequently. Where it is taught, the main method employed, after letter formation and approximate sound values have been established, is the syllabic method as in Malawi (see below).

3.2 Initial reading in Malawi

In contrast to Zambia, where initial literacy is taught almost exclusively in English, the situation in Malawi is that for the most part the teaching of reading and writing begins in Chichewa. Learners work on letter formation and the approximate sound values of letters, then move on to the syllabic approach (see Appendix A), and before the end of the first year to the reading of whole words and whole sentences.

When learners move on from the syllabic method, the approach to word and sentence reading in Chichewa is largely "look and say", but it is more meaningful than the "look and say" approach to English in Zambia, since Malawian learners have through the syllabic approach to Chichewa, already learned that written letters represent sounds. In addition, Malawian learners understand what they are "looking at and saying" provided they are Chichewa speakers. Even if they are not Chichewa speakers, they will speak a related Bantu language, and hence Chichewa will certainly be more accessible to them than English.

As far as beginning reading in English is concerned, the official Malawian approach is embodied in the Teacher's Guides for the new course Activities with English which replaced English for Malawi from the early nineties. The guide says that reading should be mainly carried out through the "look and say" approach in year 1, with elements of the phonic approach added in year 2. Despite the fact that the skills of letter recognition and formation, and the approximate sound values of letters, have apparently already been taught in Chichewa, the English course books appear to be still teaching letter formation in year 2 English. It would appear somewhat superfluous to teach letter formation once in Chichewa and once in English.

3.3 Beyond initial reading
Once learners have acquired the basics of reading in a language, i.e. they know "how to read", and also have adequate proficiency in the language(s) concerned, then Malawian and Zambian teachers generally move on to "reading comprehension" of short passages which appear in the course books. This typically consists of an explanation of "new" words by the teacher, then a "model reading aloud" of the text sentence by sentence, either by the teacher, or a few pupils known to be competent, followed by choral repetition of the text by various combinations of the class. Finally there are oral questions, which are again generally answered by the more able pupils and chorally repeated by the class; pupils may then be required to write the answers to the questions already answered orally.

Reading comprehension work of this kind aims primarily at increasing the language proficiency of the learners, through expanding their vocabulary, and providing practice in grammatical structure (so-called "pattern reading" where learners are supposed to internalise structure through reading lists of structurally identical sentences; this is exemplified in the year 2 lesson transcript in Appendix B).

Learning to read, and carrying out reading comprehension, as described above, appear to be the main reading activities carried out in the primary school classes. Listening to stories read by the teacher never seems to occur, while the reading of stories by pupils (apart from the short passages in the course book), whether as a class or in terms of individual self access, was until very recently almost never practised. In recent years, however, class sets of simple readers have been funded by UNESCO in Zambia, while class boxes of supplementary readers have been introduced into both Zambia and Malawi, funded by the DFID).

### 3.4 Reports on reading lessons observed

#### 3.4.1 Malawi

#### 3.4.2 Zambia

This section reports on a selection from a total of 27 English reading lessons observed in 1992, 14 in Malawi, and 13 in Zambia. Classes were observed at all years except 7, in both rural and urban locations.

**Table 3: Lesson Observation in Malawi**

<table>
<thead>
<tr>
<th>Year</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
These observations were recorded, and a running record kept of pupil and teacher behaviour. Selected lessons, which attempt to be representative, are briefly described here. All lessons lasted approximately 30 minutes. For complete transcripts of two lessons (year 2 in Malawi, and a year 3 in Zambia), see Appendix B.

### 3.4.1 Malawi

#### Year 1

(Teacher: trained, 86 pupils): The class opened with the teacher drilling the children in "I am washing my face", demonstrated by miming. A girl was then selected to come out and remained in front of the class for almost twenty minutes while the class chanted after the teacher "I am washing my face" "She is washing her face" "I am washing my hands" "She is washing her hands". Questions to individual pupils followed, which revealed confusion on the part of many learners as to the difference between "I" and
"she", "her" and "my", (e.g. Teacher: *What is she doing?* Pupil: *I am washing my face.*)

The teacher made no attempt to clarify the differences in the meaning of the pronouns, but merely told those who committed errors to sit down, and made the whole class chant the correct response. There seemed very little evidence of sequencing or progression of language or activities, and the teacher went backwards and forwards over the same sentences. The new words, basin and soap, were written on the board and chanted aloud by the class, but no attempt was made to check on understanding of the words.

**Year 2**

(Teacher: trained; 128 pupils): Here a long section describing a shopping episode was copied from the book onto the board (Book 2, p 46: see Appendix C). Chanting after the teacher ensued, with variations in grouping e.g. boys, girls, back row, front row etc. There was no attempt at presenting meaning and little checking of understanding of the text. Although the teacher asked questions, if they were wrongly answered there was no explanation from the teacher (e.g. when a pupil misinterpreted *where* as *wear* the teacher did not clarify). The teacher occasionally aided understanding of her questions by translating them into Chichewa. Some children were asked to spell words on the board; a child who made a mistake was simply dismissed. The predominant impression is that the children spent too long in repetition, and that when not repeating, they were being tested rather than taught. (For a transcript of this lesson in Appendix B.)

**Year 3**

(Teacher: trainee; 32 pupils). The text (*River Fishing*) was written on the board, and some new words were repeated; the word *caught* in particular was drilled at length with a flashcard. Sentences from the text were chanted in various combinations, (by the whole class, boys only, girls only, different rows), and questions asked and answered orally. Pupils were then asked to write answers into their exercise books. The lesson was characterised by complete absence of attention to meaning. Questioning a group of 8 girls in Chichewa at the end of the lesson revealed that they did not know what *caught* meant, despite the extensive drilling with the flashcard. (The girls' lack of response did not appear to be due to shyness, as they readily answered standard questions about themselves.)

**Year 4**

(Teacher: trained; 118 pupils). This class took place outside, a few yards from a dusty road, with vehicles passing at intervals. In contrast to most other lessons observed, this one gave attention to the presentation of the meaning of words. The teacher skilfully
used the fact that this very large class was being taught next to a road to demonstrate "tyre" "rolling" and "lorry", words which all occurred in the text. The text of some 170 words had been entirely written out on the blackboard. After the presentation of the new words, the pupils read the text following the teacher's model, in various groupings and individually. The teacher kept up a fairly lively pace, but paid attention consistently to the presentation of meaning, though there was little checking of understanding.

3.4.2 Zambia

Year 1

(Teacher: trained; 42 pupils): The teacher was engaged in pre-reading activities. Pupils were sitting in groups around tables or desks. The class was lively, with children drawing, and walking around pointing to colours and objects. The teacher gave careful attention to the presentation of meaning, and was responsive to the pupils' difficulties. Different groups of pupils were given different tasks, and the teacher moved from group to group giving individual attention. The pace of the lessons seemed well matched to the children's attention span, and they were not overloaded with language. There was a limited amount of chanting. The teacher was using the old ZPC material but she demonstrated how well that could be used in the hands of a competent teacher. However, this school was an "elite" urban school with a relatively privileged pupil population, and clearly above average in material provision.

Year 3

(Teacher: trained; 45 pupils) This lesson followed the pattern that was established for the reading class in the then current textbook, namely explaining new words or discussing a picture, followed by reading and answering questions. A frequent problem, as here, is that the explaining of words consisted of pupils merely repeating words, while in the question and answer session the teacher addressed only the most competent pupils or answered the questions himself. The reading was largely chanting, with sections of the class and individuals repeating after the teacher. The entire lesson was spent on a text about hippos and crocodiles, but at the end of the lesson only 6 pupils out of 45 knew what a hippo was (The text and transcript for this lesson appear in Appendices B and C)

Year 4

(Teacher: trained; 33 pupils) After brief repetition of new words, this class repeated in chorus and individually a text that had been written on the board. Oral questions then followed which the teacher answered himself for the most part. Only 3 pupils volunteered answers. Despite the fact that the pupils seemed to have problems in
answering questions about the small section of the story which was written on the board, the teacher continued by reading the whole story twice from the book (which only he had). He then asked children questions on his oral reading which none of them could answer. During the reading my impression was that only some 6 pupils had appeared to be attending; judging from their reaction to questions, the reason for this was that they had not been able to understand it.

Year 5

(Teacher, trained; 29 pupils) The lesson began with the teacher distributing the books (1 between 2 or 3 pupils), then asking a series of questions about a picture. Pupils were nominated to answer. If they could not do so the question was rephrased more simply, and if necessary the pupil was helped to formulate an answer. The pupils then went on to read the text, first following as the teacher read, then reading silently by themselves. Further questions were asked including a number which did not appear in the book, and also "Why?" questions, which had been absent in most other lessons. Pupils who appeared to be confused (as one was by the difference between "knew" and "know") received clear explanation and exemplification. Pupils were finally asked to write the answers to the questions in their books; while they did so the teacher circulated among them giving individual attention.

3.5 Observations on lessons

The most striking feature of the reading lessons in Malawi and Zambia, with a few notable exceptions, is the lack of attention to the presentation and checking of meaning, at the level of vocabulary and structure. While some lessons appeared to be well taught by teachers who had a clear idea of what they were doing (e.g. Malawi year 4, and Zambia, years 1 and 5 above), the majority of lessons observed were characterised by the teacher going through steps prescribed in the Teacher's Guide but without apparent understanding of their purpose and without sensitivity to or feedback from, their learners.

The predominant classroom method of teaching of reading in the lessons observed is the drilling of words and sentences through repetition. The principles behind this are those of the "look and say" approach to teaching reading, allied to the behaviourist "pattern drill" approach to foreign language teaching. The approach devotes minimum attention to meaning, first because "look and say" reading was intended for English-speaking children in the USA or UK who were learning to read in English (and therefore were assumed to understand); second because the behaviourist "pattern drill" approach to the learning of foreign language was primarily intended to reinforce structural patterns rather than to attend to the meaning (this purpose is reflected in the use of the term "pattern reading" in Malawi and Zambia). However, in fairness to the
textbook writers in these countries, it should be pointed out that the Teachers Books advocate more attention to meaning than is reflected in the lessons.

It should also be born in mind that most teachers are working in exceptionally difficult circumstances in both countries: the schools are dilapidated, classes are often huge, books are scarce, pupil attendance may be erratic, and teachers themselves are poorly paid, sometimes after long delays.

However, even within the current unsatisfactory conditions, one major advance for the teaching of reading in English in Malawi and Zambia would be for all teachers to appreciate that reading does not simply consist of saying words while looking at them, but that it is concerned primarily with apprehending meaning. Ensuring that pupils understand sufficient language to make sense of what they are reading is crucial for teachers, and so is having a range of techniques to check on understanding.

The reading lesson has for many teachers become an occasion for little more than "reading aloud". I would not condemn reading aloud out of hand. There may be roles for it in the early stages, as far as Grade 3, and in certain cases beyond. However, teachers need to ask why it is being done on each occasion. Purposes put forward by those in favour of reading aloud include:

(a) reading aloud for individual pupils:
   (i) to check that the individual is able to decode
   (ii) to give the individual practice in decoding
   (iii) to answer a question

(b) reading aloud for individuals and groups:
   (i) to practice pronunciation
   (ii) to reinforce grammatical patterns
   (iii) to reinforce recognition of written words

(c) reading aloud for groups:
   (i) to enable the individual to carry out the above without being the focus of the teacher's attention
   (ii) to carry out the above more economically
   (iii) to provide a change of activity
The only purpose where reading aloud is crucial is (a) (i). In all other cases there are ways other than reading aloud of achieving the same purpose, and, while reading aloud may used for these other purposes, it should not be the exclusive means. Furthermore, whatever the purpose of reading aloud, pupils should always understand what they are saying.

A synchronised reading performance by a class is no guarantee of understanding, and neither is "perfect" pronunciation. At its worst, excessive choral repetition is simply a performance which masks a lack of real competence. Reading aloud should be kept within limits and used for clear purposes.

In brief what is crucial is that, irrespective of the degree of reading aloud in a class, attention to meaning and understanding is essential. It may be that the new English coursebooks which are being introduced in both countries will help in this respect, but whatever materials may be employed, teachers must be aware of the importance of pupils understanding what they read.
4 Reading research: 1992

4.1 Description

4.1.1 Aims
4.1.2 Test methods
4.1.3 Schools and year levels
4.1.4 The testees

4.1.1 Aims

The aims of the 1992 reading tests were to investigate:

(i) reading proficiency in English in Zambian and Malawian primary schools at years 3, 4 and 6

(ii) reading proficiency in a local language (Chinyanja in Zambia; Chichewa in Malawi) at the same years.

Particular attention was paid to the effect of location (urban and rural) and gender differences. Over and above the investigation of reading competencies at national level, carrying out parallel testing in two countries also allows comparison of contrasting language policies upon reading proficiency at international level.

4.1.2 Test methods

Following the initial piloting of various test formats, it was decided that the most appropriate group reading testing methods would be:
(i) a modified cloze test in English for testing English reading proficiency
(ii) a modified cloze test in local languages for testing local language reading proficiency

(i) **Modified English Cloze Test**: here the reader has a short passage with 4 or 6 gaps, and is asked to choose a word from a list provided in a box above the passage to fill each gap. A 60 item test was produced, referred to in this report as Word Find (see Appendix D for extracts). The 1992 English courses in the two countries (English for Malawi and the New Zambia Primary Course) were sufficiently similar for language common to both courses to be used in testing. The Word Find test was divided into three sections of 20 items, graded in terms of language, and aimed at the years as follows:

- Section 1, items 1 - 20: Year 3
- Section 2, items 21-40: Year 4
- Section 3, items 41-60: Year 6

The whole 60 item test was administered to all testees, since pilot testing had indicated there was considerable overlap between years, with good year 3 pupils scoring considerably higher than weak year 6 pupils. In topic and style the test passages imitate the text types used in the course books. While far from "authentic", such texts are among the few text types which can safely be assumed to be within the experience of all the children tested. Most rural villages do not have shops, and the children of subsistence farmers rarely see cereal packets, sweet wrappers, tins or other "authentic" texts of the consumer society.

(ii) **Local Language Modified Cloze Test**: Chichewa and Nyanja versions of Word Find, also with 60 items, were prepared with the help of language experts from Malawi and Zambia.

Since there are minor variations in the standard written forms of the two languages, slightly different versions of the two tests had to be prepared (see Appendix E for extracts). Both versions were adaptations of the English tests. Obviously, it cannot be proved that the two local language tests are of equivalent difficulty. However, as standard Chichewa and Nyanja are "the same language" (Kashoki, 1978: 45) with a few orthographic differences, then it was possible for those who prepared the tests to cooperate so as to ensure close equivalence on a subjective basis.

### 4.1.3 Schools and year levels

Tests were administered in two urban schools and three rural schools in both countries. All schools were selected by the respective Ministries of Education for Malawi and
Zambia. Time constraints meant that there was insufficient time to cover more than three rural schools per country, so the sample is not representative. Testing was carried out in only two of the three Malawian provinces (Central and Southern), and only two of the nine Zambian provinces (Lusaka and North Eastern), since schools had to be in areas where Chichewa/ChiNyanja were known to be local languages, and were also, in the case of Zambia, designated as the "official" language to be taught in primary schools. The lack of representative sampling in terms of provinces and school categories is to be kept in mind in the interpretation of the results.

Pilot work suggested that testing should be carried out at years 3, 4 and 6. Testing at years 1 or 2 would have been inappropriate since in many schools very little achievement would be registered through a group test in those years (this does not, of course, mean that no learning is going on in those years). Year 6 was selected as a point by which pupils should be able to demonstrate reasonable progress.

### 4.1.4 The testees

The group reading tests were administered to intact classes in cases where classes had fewer than 34 pupils. In cases of larger classes a representative sample was selected. The English and local language reading tests were administered to the following numbers of pupils:

#### Table 5: Testees for reading tests in Malawi (1992)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sex</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Boy</td>
<td>38</td>
<td>45</td>
<td>83</td>
</tr>
<tr>
<td>3</td>
<td>Girls</td>
<td>41</td>
<td>45</td>
<td>86</td>
</tr>
<tr>
<td>4</td>
<td>Boys</td>
<td>34</td>
<td>42</td>
<td>76</td>
</tr>
<tr>
<td>4</td>
<td>Girls</td>
<td>35</td>
<td>42</td>
<td>77</td>
</tr>
<tr>
<td>6</td>
<td>Boys</td>
<td>43</td>
<td>49</td>
<td>92</td>
</tr>
<tr>
<td>6</td>
<td>Girls</td>
<td>39</td>
<td>27</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>230</td>
<td>250</td>
<td>480</td>
</tr>
</tbody>
</table>

#### Table 6: Testees for reading tests in Zambia (1992)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sex</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Boys</td>
<td>27</td>
<td>40</td>
<td>67</td>
</tr>
<tr>
<td>3</td>
<td>Girls</td>
<td>41</td>
<td>43</td>
<td>84</td>
</tr>
</tbody>
</table>
The principal carers - both male and female - of the majority of rural children were subsistence farmers and/or casual labourers, while those of urban children had a range of occupations, including security guards, drivers, market traders and a variety of clerical occupations.

The mean ages of testees - bearing in mind that many rural children are unsure of their date of birth - were calculated, in years and months, to be:

**Table 7: Mean Ages of Testees: 1992**

<table>
<thead>
<tr>
<th>Year</th>
<th>Malawi</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>12,3</td>
<td>11,4</td>
</tr>
<tr>
<td>4</td>
<td>13,4</td>
<td>12,5</td>
</tr>
<tr>
<td>6</td>
<td>14,10</td>
<td>13,9</td>
</tr>
</tbody>
</table>

The mean ages are higher than would be predicted from the official starting ages (6 in Malawi, 7 in Zambia) as many children, especially in rural areas start school later than the official age. The mean age in Malawi is higher than that in Zambia, despite the fact that officially Malawian children start aged 6, rather than 7. The reasons are that more Malawian pupils repeat years, and that many pupils start school even later than Zambians. Only 24% of year 1 Malawian pupils are in fact aged 6 (Ministry of Education [Malawi], 1991: 16). A further anomaly is that in both countries there is less than two years difference between the mean ages in years 4 and 6, possibly because year 4 is the year at which many older pupils who are not intending to attempt secondary school entrance leave. Although these schools are referred to as "primary" schools, the ages of most pupils from year 4 onwards are equivalent to those of secondary school pupils in the UK.

None of the children spoke English at home; all claimed to be able to speak Chichewa (Malawi) or Nyanja (Zambia), and this was supported by the teachers. Observation of children outside class revealed the languages were also the medium of child-to-child communication. Not all children spoke the languages at home; in Malawi 13.1% spoke a language other than Chichewa, while in Zambia 25% spoke a language other than
Nyanja at home. This was particularly the case in urban areas. However, the investigation is concerned with providing a description of reading performance in the local language, not in assessing "first language" reading.

4.2 Results of English test

4.2.1 General

4.2.2 Comments on general English test results

4.2.3 School year

4.2.4 Gender effects

4.2.5 Location effects

4.2.6 Gender and location effects

4.2.1 General

The results are considered here in terms of countries, year, gender and location. Statistical significance is set at the conventional 0.05 which means that in cases where differences between groups (male/female, rural/urban etc.) are said to be statistically significant, we may be 95% confident that they did not occur by chance. The chance score for this 60 item test is 8 i.e. filling in the gaps randomly is likely to achieve 8 items correct (Department of Applied Statistics, Reading University). The overall reliability estimate for the English test was 0.86 (Kuder Richardson 21). Statistics were calculated using the MIXED programme in the SAS package.

Table 8: Malawi, 1992 Results for English Reading Test, Items 1-60

<table>
<thead>
<tr>
<th>YEAR</th>
<th>N</th>
<th>MEAN</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>MEDIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>169</td>
<td>7.62</td>
<td>4.56</td>
<td>25</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>153</td>
<td>14.96</td>
<td>7.89</td>
<td>39</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>6</td>
<td>158</td>
<td>29.17</td>
<td>9.71</td>
<td>54</td>
<td>8</td>
<td>29</td>
</tr>
</tbody>
</table>

1 Key: N: number of testees; MEAN: average; SD: standard deviation; MAX: highest score; MIN: lowest score; MEDIAN: score of the middle testee.

Table 9: Zambia, 1992 Results for English Reading Test, Items 1-60
4.2.2 Comments on general English test results

There is an overall inter-country difference on the English reading test of 2.63 points in favour of Malawi. This difference, however, is far from significant (P>0.4) and there is thus no evidence of real difference between the two countries on the overall comparison. Likewise comparing the countries on the basis of school years reveals consistent differences in favour of Malawi, but again not to a statistically significant extent. Again this suggests that there is no real difference between pupils at years 3, 4 and 6 in the two countries. This finding is not what one would predict, and it would appear that the official Zambian policy of English as a medium of instruction for the first 4 years has not led to a superior performance in English reading.

4.2.3 School year

The mean scores reveal large differences between years 3, 4 and 6, as one would expect: in Malawi year 6 score approximately 14 points higher than year 4, who in turn score some 7 points higher than year 3; in Zambia year 6 score approximately 17 points higher than year 4, who in turn score nearly 7 points higher than year 3. These differences are statistically strongly significant, and indicate that pupils do improve with time - i.e. they are learning more the longer they stay in school. (Although this tendency is probably emphasised by the fact that weak pupils tend to drop out of school, and feature less prominently in the higher years.)

Despite these large mean differences it is apparent from the maximum (MAX) and minimum (MIN) scores that in both countries there is a large range of scores within each year, with an overlap between each year, and even an overlap between scores in year 3 and year 6. The detailed results reveal that this is true for all schools, although urban schools have higher maximum scores.

4.2.4 Gender effects

Table 10: Mean 1992 English Scores by Year and Sex in Malawi and Zambia

<table>
<thead>
<tr>
<th>Year</th>
<th>Sex</th>
<th>N Malawi</th>
<th>N Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Boys</td>
<td>82</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.56</td>
<td>4.00</td>
</tr>
</tbody>
</table>
There are small and consistent differences in favour of boys in Malawi, and in favour of girls in Zambia. However, the only statistically significant differences are at years 3 and 6 in Malawi, which accounts for the overall statistically significant gender difference in Malawi, with the boys scoring nearly 2 points more than girls. In Zambia girls scored overall just over 1 point more than boys (non-significant). However, the combined gender and location effect (see 4.2.6 below) suggests that difference may not be attributable to gender alone.

4.2.5 Location effects

Table 11: Mean English Scores by Year and Location in Malawi and Zambia

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>N</th>
<th>Malawi</th>
<th>N</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Rural</td>
<td>89</td>
<td>7.05</td>
<td>83</td>
<td>2.86</td>
</tr>
<tr>
<td>3</td>
<td>Urban</td>
<td>79</td>
<td>8.33</td>
<td>68</td>
<td>7.56</td>
</tr>
<tr>
<td>4</td>
<td>Rural</td>
<td>84</td>
<td>12.33</td>
<td>80</td>
<td>8.63</td>
</tr>
<tr>
<td>4</td>
<td>Urban</td>
<td>69</td>
<td>18.16</td>
<td>68</td>
<td>14.70</td>
</tr>
<tr>
<td>6</td>
<td>Rural</td>
<td>76</td>
<td>26.83</td>
<td>93</td>
<td>23.77</td>
</tr>
<tr>
<td>6</td>
<td>Urban</td>
<td>82</td>
<td>31.34</td>
<td>60</td>
<td>34.80</td>
</tr>
</tbody>
</table>

Urban-rural differences in both Malawi and Zambia are considerable at all years. However, they are not statistically significant, due to the small number of schools (not pupils) in the sample. Overall the differences are 3.3 (Malawi) and 7.2 (Zambia) in favour of urban pupils but again non-significant, for the same reason. It is highly likely, however, that real differences do exist between urban and rural schools, but a larger sample of schools would have been needed to confirm this statistically.

4.2.6 Gender and location effects

Combining the effects of sex and location yields the following table:
Table 12: Mean English Scores by Year, Sex and Location in Malawi and Zambia

<table>
<thead>
<tr>
<th>Year</th>
<th>Sex</th>
<th>Location</th>
<th>N</th>
<th>Malawi</th>
<th>N</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Boy</td>
<td>Rural</td>
<td>44</td>
<td>8.43</td>
<td>40</td>
<td>2.75</td>
</tr>
<tr>
<td>3</td>
<td>Girl</td>
<td>Rural</td>
<td>45</td>
<td>5.69</td>
<td>43</td>
<td>2.95</td>
</tr>
<tr>
<td>3</td>
<td>Boy</td>
<td>Urban</td>
<td>38</td>
<td>8.71</td>
<td>27</td>
<td>5.85</td>
</tr>
<tr>
<td>3</td>
<td>Girl</td>
<td>Urban</td>
<td>41</td>
<td>7.97</td>
<td>41</td>
<td>8.68</td>
</tr>
<tr>
<td>4</td>
<td>Boy</td>
<td>Rural</td>
<td>42</td>
<td>14.17</td>
<td>49</td>
<td>10.04</td>
</tr>
<tr>
<td>4</td>
<td>Girl</td>
<td>Rural</td>
<td>42</td>
<td>10.50</td>
<td>31</td>
<td>6.42</td>
</tr>
<tr>
<td>4</td>
<td>Boy</td>
<td>Urban</td>
<td>34</td>
<td>16.97</td>
<td>29</td>
<td>12.76</td>
</tr>
<tr>
<td>4</td>
<td>Girl</td>
<td>Urban</td>
<td>35</td>
<td>19.31</td>
<td>39</td>
<td>16.15</td>
</tr>
<tr>
<td>6</td>
<td>Boy</td>
<td>Rural</td>
<td>49</td>
<td>29.02</td>
<td>46</td>
<td>23.21</td>
</tr>
<tr>
<td>6</td>
<td>Girl</td>
<td>Rural</td>
<td>27</td>
<td>22.85</td>
<td>47</td>
<td>24.32</td>
</tr>
<tr>
<td>6</td>
<td>Boy</td>
<td>Urban</td>
<td>43</td>
<td>32.58</td>
<td>33</td>
<td>32.60</td>
</tr>
<tr>
<td>6</td>
<td>Girl</td>
<td>Urban</td>
<td>39</td>
<td>29.97</td>
<td>27</td>
<td>37.48</td>
</tr>
</tbody>
</table>

Analysis of this table illuminates the gender issue in that it reveals there are no statistically significant differences between boys and girls in urban schools in Malawi. However, there are significant differences between the sexes in rural schools in favour of boys, at years 3 and 4, and a near significant difference in favour of boys at year 6 (p = 0.051). It would appear that it is particularly in rural Malawi that girls are at a disadvantage, possibly because they are expected to do more domestic work (e.g. head-loading water and maize, invariably done by girls, is very likely to take up more time in rural areas than urban ones).

In Zambia, on the other hand, girls consistently have higher means than boys, but not to a statistically significant extent. The exception is in year 4 rural schools, where Zambian boys have significantly higher scores than girls - this exception has no ready explanation.

The only inter-country difference that attains statistical significance is that of rural year 3, where Malawian boys have considerably higher means than Zambian boys. Indeed the latter's mean score is well below the chance score of 8, as is that of the rural Zambian girls. Observation of the Zambian rural pupils during test administration suggests this is due to the fact that they wrote very slowly and laboriously, and so were unable to complete 60 items which would have given them a better statistical chance of getting some items randomly correct (their scores in Nyanja are comparable, for the same reason).
4.3 Results of local language tests

4.3.1 Mean scores by year

There are striking inter-country differences here. The Malawian pupils, as one would expect, have achieved considerably higher means than Zambian pupils at all years in local language reading tests, and the differences in all cases attain clear statistical significance.

Malawian pupils have scored approximately 5 times more at year 3, 3 times more at year 4, and 2 times more at year 6 than their Zambian counterparts. The Zambian mean scores are below the chance score of 8 in years 3 and 4. These results suggest that most Zambian children have problems in reading their local language. While the direction of this finding is one that one would predict from the differing language policies of the two countries (Zambia going "straight for English" as a medium of instruction, and Malawi using Chichewa for the first 4 years), the extent of the difference is surprising.

Table 13: 1992 Results of Chichewa Reading Test (Malawi) Items 1-60

<table>
<thead>
<tr>
<th>YEAR</th>
<th>N</th>
<th>MEAN</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>MEDIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>169</td>
<td>16.11</td>
<td>8.48</td>
<td>43</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>153</td>
<td>29.14</td>
<td>10.36</td>
<td>52</td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td>6</td>
<td>158</td>
<td>45.66</td>
<td>8.29</td>
<td>59</td>
<td>22</td>
<td>47</td>
</tr>
</tbody>
</table>

Table 14: 1992 Results of Nyanja Reading Test (Zambia) Items 1-60

<table>
<thead>
<tr>
<th>YEAR</th>
<th>N</th>
<th>MEAN</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>MEDIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>151</td>
<td>3.31</td>
<td>4.44</td>
<td>37</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>148</td>
<td>7.50</td>
<td>5.06</td>
<td>27</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>153</td>
<td>21.63</td>
<td>12.17</td>
<td>58</td>
<td>3</td>
<td>20</td>
</tr>
</tbody>
</table>

4.3.2 Pupils from different language backgrounds
Pupils who claimed to use a language other than Chichewa or Nyanja at home did not appear to be penalized in the local language tests. There are no statistically significant differences in terms of home language in combination with gender or location in either country.

**Table 15: Mean scores on Chichewa test of Chichewa and non-Chichewa home language speakers**

<table>
<thead>
<tr>
<th>Year</th>
<th>Chichewa home lang.</th>
<th>Other home lang.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>16.08</td>
<td>16.26</td>
</tr>
<tr>
<td>4</td>
<td>28.88</td>
<td>30.33</td>
</tr>
<tr>
<td>6</td>
<td>45.63</td>
<td>46.11</td>
</tr>
</tbody>
</table>

**Table 16: Mean scores on Nyanja test of Nyanja and non-Nyanja home language speakers**

<table>
<thead>
<tr>
<th>Year</th>
<th>Nyanja</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.92</td>
<td>4.47</td>
</tr>
<tr>
<td>4</td>
<td>7.12</td>
<td>8.45</td>
</tr>
<tr>
<td>6</td>
<td>23.26</td>
<td>15.91</td>
</tr>
</tbody>
</table>

### 4.3.3 Correlations of English and local language results

For Malawi, correlations between the English results and the Chichewa results for all years are generally positive but not high. Those for Year 6 (by school) are as follows:

<table>
<thead>
<tr>
<th>School</th>
<th>Correlation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>School M (urban)</td>
<td>0.56</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>School S (urban)</td>
<td>0.40</td>
<td>&lt;0.0110</td>
</tr>
<tr>
<td>School N (rural)</td>
<td>0.42</td>
<td>&lt;0.0368</td>
</tr>
<tr>
<td>School P (rural)</td>
<td>0.40</td>
<td>&lt;0.0191</td>
</tr>
<tr>
<td>School W (rural)</td>
<td>0.73</td>
<td>&lt;0.0022</td>
</tr>
</tbody>
</table>

This suggests a slight tendency for relative performance in English to correlate with that in Chichewa. Certainly it does not suggest that competence in English is acquired at the cost of competence in Chichewa. In Zambia correlations of results in English and Nyanja for year 6 yielded the following:
<table>
<thead>
<tr>
<th>School</th>
<th>Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>School C (rural)</td>
<td>0.82</td>
<td>p&lt;0.0001</td>
</tr>
<tr>
<td>School D (rural)</td>
<td>0.73</td>
<td>p&lt;0.0001</td>
</tr>
<tr>
<td>School K (rural)</td>
<td>0.78</td>
<td>p&lt;0.0001</td>
</tr>
<tr>
<td>School J (urban)</td>
<td>0.57</td>
<td>p&lt;0.0011</td>
</tr>
<tr>
<td>School T (urban)</td>
<td>0.67</td>
<td>p&lt;0.0001</td>
</tr>
</tbody>
</table>

These higher correlations likewise suggest that pupils who score relatively well in English also score relatively well in Nyanja. Again it does not support the view that reading proficiency in one language is gained at the expense of reading proficiency in another.
5 The 1994 research

5.1 Description

5.1.1 Aims
5.1.2 Methods
5.1.3 Schools and testees
5.1.4 Administration

5.1.1 Aims

The 1994 research was undertaken in order to investigate reading proficiency at year 5 in English and the local language. However, it had the further aims of investigating in more depth individual pupils' reading in English and the local language. This individual investigation examined a sample of pupils who had achieved high and low scores on the English reading tests, to see whether there were any factors in their background associated with their scores. It also looked at the comprehension strategies of high and low scorers, the difficulties they report, and the ways in which they try to overcome their difficulties.

5.1.2 Methods

The methods employed to collect data were as follows:

(i) a 30 item reading test in English

(ii) a 30 item reading test in the local language (namely Chichewa in Malawi, and ChiNyanja in Zambia)
The 1994 Reading Tests: The group reading tests were again, as in the 1992 research, modified cloze tests with a total of 30 items each. The language for the English test was taken from the English language course books *English in Malawi* and *New Zambia Primary Course, English Language* at or below fourth year level (i.e. a year below that of the testees). The test consists of four different passages, with a fairly steep grading of difficulty. In terms of socio-cultural appropriacy the passages contain topics and episodes with which the pupils were, according to teachers, familiar, and which closely resemble those in their course books (for sample extracts, see Appendix F).

The texts for both local language tests were modified versions of Zambian school textbooks (*Werenga Cinyanja*). The Malawian version of the texts was appropriately modified in terms of spelling, lexis and morphology by a Chichewa expert from the Malawi Institute of Education. This results in very small differences between the versions (see Appendix G for an extract). The same gaps were inserted in both, and the texts may on the basis of close similarity be regarded as of equivalent difficulty. The number of items was set at 30 (rather than 60 as in 1992) since this test was aimed exclusively at year 5 pupils and in principle did not have to allow for such a range of ability as the 1992 test.

5.1.3 Schools and testees

In each country data were collected from year 5 pupils in 4 rural schools and 2 urban schools. In Malawi, three schools were selected in the Zomba area (two rural, one urban) and three in the Lilongwe area (two rural, one urban). In Zambia, four rural schools and two rural schools were selected in the Lusaka area. All schools were different from those tested in the 1992 research, which broadens the base of the testing research to 11 schools in each country. The reason for choosing pupils in the fifth year is partly that it "closes the gap" in the 1992 research, while from a comparative perspective it is also the year in which Malawi starts the switch to English medium, and where any inter-country differences might be maximised.

The subjects for these tests were all pupils present in the year 5 class on the day of testing, with a sample of 50 being randomly selected in cases where classes were above
60. A total of 290 pupils were tested in Malawi, and 227 in Zambia. The data collected on each child included their date of birth, sex and home language. The mean age of testees in Zambia was 12 years 3 months, and in Malawi 13 years and 7 months. All the children in Malawi and Zambia claimed to be able to speak Chichewa and Nyanja respectively, although 18% of the Malawian testees spoke a language other than Chichewa at home, and 46% of the Zambians a language other than Nyanja (the lack of fit of the 1994 Zambian testees when compared with those of 1992, in terms of mean age, and percentage claiming Nyanja as home language, is due to the 1994 rural schools being in the Lusaka rural area, rather than the Eastern Province rural areas).

Table 17: Malawi: Testees for Reading Tests 1994

<table>
<thead>
<tr>
<th>School</th>
<th>A</th>
<th>B</th>
<th>C(U)</th>
<th>D</th>
<th>E</th>
<th>F(U)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>0</td>
<td>32</td>
<td>25</td>
<td>23</td>
<td>21</td>
<td>28</td>
<td>129</td>
</tr>
<tr>
<td>Boys</td>
<td>50</td>
<td>0</td>
<td>25</td>
<td>32</td>
<td>26</td>
<td>28</td>
<td>161</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>32</td>
<td>50</td>
<td>55</td>
<td>47</td>
<td>56</td>
<td>290</td>
</tr>
</tbody>
</table>

Table 18: Zambia: Testees for Reading Tests 1994

<table>
<thead>
<tr>
<th>School</th>
<th>A(U)</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E(U)</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>17</td>
<td>11</td>
<td>12</td>
<td>14</td>
<td>27</td>
<td>19</td>
<td>100</td>
</tr>
<tr>
<td>Boys</td>
<td>22</td>
<td>28</td>
<td>19</td>
<td>20</td>
<td>28</td>
<td>10</td>
<td>127</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>39</td>
<td>31</td>
<td>34</td>
<td>55</td>
<td>29</td>
<td>227</td>
</tr>
</tbody>
</table>

5.1.4 Administration

The group reading test in English was administered first, followed by a break of 15 to 30 minutes, and then the group reading test in the local language. Pupils were given up to 35 minutes to complete each test, with many finishing in half that time. Practice sessions for both language tests were carried out.

5.2 Results of the English reading test

5.2.1 General
5.2.2 Overall means
5.2.3 Location (urban/rural)
5.2.4 Gender
5.2.1 General

The cloze tests each had a maximum score of 30 points. The following tables provide the mean, standard deviation, maximum, median and minimum scores. Statistical analyses were performed by the Applied Statistics Department at Reading University, using the SAS package. The conventional significance level of 0.05 was chosen. The reliability of the tests (KR-21) varied from 0.75 to 0.95. The overall means were as follows:

Table 19: Overall 1994 Results of English Reading Test for Malawian Primary Schools

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>290</td>
<td>12.84</td>
<td>6.22</td>
<td>30</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

Reliability Index (KR-21): 0.84

Table 20: Overall 1994 Results of English Reading Test for Zambian Primary Schools

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>227</td>
<td>11.72</td>
<td>9.48</td>
<td>30</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

Reliability Index (KR-21) 0.95

5.2.2 Overall means

The means are very slightly in favour of Malawi, but not at a statistically significant level, and support the findings of the 1992 research, namely that there is no difference in reading ability in English between children in Zambia and children in Malawi. The evidence here again suggests that Zambian children who have officially had the first four years of education through the medium of English are not superior to Malawi children who have officially had Chichewa as a medium of instruction for those years.

The mean score of approximately 12 out of 30 for both countries is not high, given that the test was drawn from course books at year 4 and below. However, this mean score conceals considerable differences between schools, sexes, and the rural/urban divide, as
well as between individual pupils within schools.

5.2.3 Location (urban/rural)

Table 21: 1994 Results of English Reading Test for Malawian Primary Schools by Location

<table>
<thead>
<tr>
<th>Loc.</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>184</td>
<td>11.43</td>
<td>5.18</td>
<td>28</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Urban</td>
<td>106</td>
<td>15.29</td>
<td>7.08</td>
<td>30</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 22: 1994 Results of English Reading Test for Zambian Primary Schools by Location

<table>
<thead>
<tr>
<th>Loc.</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>133</td>
<td>8.46</td>
<td>7.49</td>
<td>30</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>94</td>
<td>16.32</td>
<td>10.10</td>
<td>30</td>
<td>17.5</td>
<td>0</td>
</tr>
</tbody>
</table>

In Malawi there are clear differences (over 3 points) in favour of urban schools but this is not statistically significant. In Zambia there are much larger differences (over 7 points, with the urban score almost double that of the rural) in favour of urban schools but these just fail to attain statistical significance (p = 0.0526 which is marginally over the significance level of 0.05). In strict statistical terms, the view that urban schools outperform rural schools is therefore not supported. However, the statistician's written comment was "It seems likely that a location effect is present in both countries, but that the small number of schools [in each country] in the study prevents this being detected" (personal communication, Department of Applied Statistics, Reading University, 1995). Moreover, when the data sets from the two countries are combined, the location effect is in fact significant (p < 0.02).

The contrast in Zambia is clearly displayed in the histogram of the distribution of English test scores for all children (see Appendix H). Unusually, this does not display a normal bell-shaped curve, such as one would expect from one population. The curve, in fact, is U-shaped with high scores clustering on the right hand side, and low scores on the left. In fact, this U-shape results from rural scores being skewed towards the bottom, and urban scores being skewed towards the top. Rather than suggesting the outline of a single population with most pupils scoring around the average, these results suggest rather the outline of two populations, one rural, one urban. The implications for education in Zambia give cause for concern.
## 5.2.4 Gender

### Table 23: 1994 Results of English Reading Test for Malawian Primary Schools by Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>161</td>
<td>13.72</td>
<td>6.40</td>
<td>30</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Girls</td>
<td>129</td>
<td>11.75</td>
<td>5.83</td>
<td>30</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 24: 1994 Results of English Reading Test for Zambian Primary Schools by Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>127</td>
<td>11.13</td>
<td>9.51</td>
<td>30</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Girls</td>
<td>100</td>
<td>12.46</td>
<td>9.42</td>
<td>30</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

In Malawi the difference between the sexes in the English test is statistically significant with boys scoring some 2 points higher than girls. The pattern of scoring is revealed in the histogram (Appendix H) with noticeably fewer high scoring girls than boys. In Zambia there is no statistically significant sex difference although girls have in general a higher mean than boys. This somewhat unexpected result is consistent with those obtained in the 1992 research, where Zambian girls again had higher means, but not to a statistically significant extent.

## 5.2.5 Location and gender

### Table 25: 1994 Results of English Reading Test for Malawian Primary Schools by Location and Sex

<table>
<thead>
<tr>
<th>Location</th>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Boys</td>
<td>108</td>
<td>12.46</td>
<td>5.57</td>
<td>28</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Rural</td>
<td>Girls</td>
<td>76</td>
<td>9.97</td>
<td>4.20</td>
<td>26</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Urban</td>
<td>Boys</td>
<td>53</td>
<td>16.28</td>
<td>7.23</td>
<td>30</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Urban</td>
<td>Girls</td>
<td>53</td>
<td>14.30</td>
<td>6.86</td>
<td>30</td>
<td>13</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 26: 1994 Results of English Reading Test for Zambian Primary Schools by
Location and Sex

<table>
<thead>
<tr>
<th>Location</th>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Boys</td>
<td>77</td>
<td>8.73</td>
<td>7.92</td>
<td>30</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Rural</td>
<td>Girls</td>
<td>56</td>
<td>8.09</td>
<td>6.92</td>
<td>26</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>Boys</td>
<td>50</td>
<td>14.84</td>
<td>10.60</td>
<td>30</td>
<td>14.5</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>Girls</td>
<td>44</td>
<td>18.02</td>
<td>9.31</td>
<td>30</td>
<td>20</td>
<td>1</td>
</tr>
</tbody>
</table>

Combining the effects of location and sex reveals, as would be expected, considerable differences. In Malawi urban boys score most highly, followed by urban girls, rural boys and rural girls. The difference between the first group and the last is some 6 points. In Zambia urban girls score most highly, with urban boys next, then rural boys and rural girls. The differences are considerable with the mean score of urban girls being more than double that of rural girls.

5.3 Results of the local language reading tests

5.3.1 Overall results
5.3.2 Malawian pupils results on Zambian test
5.3.3 Location and sex in local language 1994 results
5.3.4 Testees from non-Chichewa or non-Nyanja speaking homes
5.3.5 Comparison of English and Chichewa 1994 results
5.3.6 Gender and location discrimination of English tests

5.3.1 Overall results

The most striking feature of the overall means, as in 1992, is the vastly superior performance of the Malawian children. In fact, the overall mean for Zambia at 4.4 is only just above the chance level of 4. The results suggest that Malawian children read better in Chichewa than Zambian children read in Nyanja.

Table 27: Overall 1994 Results of Chichewa Reading Test for Malawian Primary Schools

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>290</td>
<td>19.88</td>
<td>5.44</td>
<td>30</td>
<td>20.5</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 28: Overall 1994 Results of Nyanja Reading Test for Zambian Primary Schools

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>227</td>
<td>4.4</td>
<td>3.70</td>
<td>22</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Reliability Index (KR-21): 0.80

5.3.2 Malawian pupils results on Zambian test

However, despite the fact that the Malawian and Zambian versions of the reading tests differed mainly in spelling, one cannot conclusively demonstrate that the two versions were of equivalent difficulty. To counter any suspicion that it might be more difficult, the Zambian Nyanja test was administered to pupils in two Malawian schools (in addition to the Malawian test). The results were:

Table 29: Malawi Pupils' Overall Results on Nyanja (Zambian) Reading Test

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>18.66</td>
<td>5.49</td>
<td>30</td>
<td>19</td>
<td>8</td>
</tr>
</tbody>
</table>

Reliability Index (KR-21): 0.79

The Malawian pupils clearly achieve higher scores in Nyanja than the Zambian pupils, despite the fact that they are reading a version intended for Zambians. These results suggest that the two tests are indeed of comparable difficulty, and confirms that the Malawian pupils are superior to the Zambian pupils in local language reading performance.

5.3.3 Location and sex in local language 1994 results

Table 30: 1994 Results of Chichewa Reading Test for Malawian Primary Schools by Location and Sex

<table>
<thead>
<tr>
<th>Location</th>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Boys</td>
<td>108</td>
<td>20.19</td>
<td>5.16</td>
<td>30</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>Girls</td>
<td>76</td>
<td>18.36</td>
<td>5.11</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>Boys</td>
<td>53</td>
<td>20.68</td>
<td>6.04</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>Girls</td>
<td>53</td>
<td>20.62</td>
<td>5.54</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 31: 1994 Results of Nyanja Reading Test for Zambian Primary Schools by Location and Sex

<table>
<thead>
<tr>
<th>Location</th>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>Median</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Boys</td>
<td>77</td>
<td>4.00</td>
<td>3.52</td>
<td>21</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Rural</td>
<td>Girls</td>
<td>56</td>
<td>3.23</td>
<td>2.57</td>
<td>13</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>Boys</td>
<td>50</td>
<td>5.18</td>
<td>3.40</td>
<td>16</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Urban</td>
<td>Girls</td>
<td>44</td>
<td>5.68</td>
<td>4.91</td>
<td>22</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

The results for Malawi show that there is no statistically significant difference between the sexes in the Chichewa test, the boys having only a slightly higher mean score than the girls. This contrasts with the results in English, where boys were superior to a statistically significant degree. Likewise the Malawi results yield very low urban/rural differences of no statistical significance.

In Zambia there is no significant sex effect, and although the Zambian results demonstrated a statistically significant location difference in favour of urban children, the means (3.66 rural; 5.41 urban), are so close to the chance score of 4, that this result does not warrant consideration.

5.3.4 Testees from non-Chichewa or non-Nyanja speaking homes

The test was administered in areas where the majority of pupils claimed Chichewa (in Malawi) or Nyanja (in Zambia) as their home languages. In both countries, however, there was a minority of children who spoke another language at home. When the results were analysed for home language effect, those from Chichewa or Nyanja speaking homes had a very slight (1.6 and 0.9 points respectively) but not statistically significant advantage over those who had a different home language.

5.3.5 Comparison of English and Chichewa 1994 results

Analysis of the results (Spearman Correlation Coefficient) suggests, as in 1992, that there is a weak tendency for the pupils who score well in English to also score well in
local language, while those with low scores in English tend to have low scores in the local language. Although the correlations were not high (0.57 for Malawi (p < 0.0001), and for Zambia 0.38 (p < 0.0001)) we may infer from them that reading proficiency in one language is probably not acquired at the cost of reading proficiency in another.

5.3.6 Gender and location discrimination of English tests

One striking finding from Malawi is that in the Chichewa test results show smaller differences with respect to the effects of gender, location (urban/rural) and school, than do the English tests. This suggests that English tests discriminate more against girls, and against rural pupils, than do Chichewa tests.

The reason is possibly that both rural and urban children, and both boys and girls, are equally exposed to Chichewa in the social environment and so acquire it in roughly equal measure; English on the other hand, is more available in urban environments giving urban children an advantage. In addition, learning of English is more dependent on "being taught" and therefore variables such as teacher attention and accessibility of books may favour boys.
6 Individual reading sessions

6.1 Structured interviews and individual reading sessions
6.2 The subjects
6.3 Selection of issues for interviews
6.4 Findings from interviews

6.1 Structured interviews and individual reading sessions

Structured interviews were conducted with a view to investigating whether there were any consistent differences in background and behaviour between high and low scorers. Individual reading sessions were intended to explore the difficulties in reading reported by high and low scorers, and the extent to which they differed.

In order to carry out the structured interviews and discussions on individual reading, three research assistants were selected and, 3 months before the main data collection, received training totalling some 10 hours. Unfortunately two of the trained assistants in Malawi, and one of the trained assistants in Zambia had to withdraw very shortly before the data collection exercise. They were replaced, but the replacements received extremely brief preparation which inevitably had a negative effect on data gathering.

The structured interviews and individual readings took place in a single session. Pupils were not interviewed alone, but each was asked to choose two friends to accompany them, in order to help put the "target pupil" at ease. Questions were also put to the friends, but only answers from the "target pupil" were analysed. The structured questionnaire was administered first, and the reading and discussion were audio-recorded immediately afterwards. Discussion took place in either English or the local language.

6.2 The subjects

Structured interviews and individual reading sessions were conducted with pupils from
each class, selected according to their score, high, mid, or low. In this analysis only the high scoring and low scoring groups are dealt with. As the operation proceeded on a school-by-school basis, high and low are relative to the performance within each class. The range of scores for each level over all 6 schools was as follows:

**Malawi:**

High-scoring pupils (N=12; 6 boys, 6 girls)
Range of scores: 13-30

Low scoring pupils (N=12; 6 boys; 6 girls)
Range of scores: 3-9

**Zambia:**

High-scoring pupils (N=12; 5 girls; 7 boys)
Range of scores 19-30

Low scoring pupils (N=12; 7 girls; 5 boys).
Structured Interview Group. Test scores: range 0-8
Reading Session Group. Test scores\(^1\): range 1-17

\(^1\) The Zambian low-scorers in the reading session group were not identical to those in structured interview group. Eight of the latter turned out to be non-readers who could not contribute to the reading session and had to be discarded from the analysis. They were replaced by eight from a mid-scoring pool. The numbers of males and females did not change.

### 6.3 Selection of issues for interviews

The selection of school-related factors focused on those that are likely to contribute to pupil achievement, and where there was also a reasonable chance of collecting reliable data. Home related factors were selected on the same basis. For reasons of space, this report presents findings on only some of the factors investigated, namely:

**School related factors:**

- age and years of schooling
- absences from school
- language preference in reading
Home related factors:
- composition of the home group
- home socio-economic status
- home literacy in English and Nyanja (or other local language)
- books per household
- reading preferences

### 6.4 Findings from interviews

#### 6.4.1 Age of starting

In Zambia the differences between high and low scorers are small; high scorers start at a mean age of 7 years 8 months, and low scorers a little earlier at 7 years 6 months. In Malawi high scores start at a mean age of 6 years 1 month, and low scores exactly 1 year later. This does not appear to be a decisive factor.

#### 6.4.2 Pupil absences

These were established by asking the pupil, the teacher, and checking in the class register if it was available. In Malawi the term had been running for a mean of 30 school days at the time of the interviews, and in Zambia for a mean of 18. The results were:

**Table 32: Absences over 30 days of high and low scorers in Malawi**

<table>
<thead>
<tr>
<th></th>
<th>Total pupil-days absent (max: 360)</th>
<th>Mean days absent per pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scorers (N = 12)</td>
<td>30</td>
<td>2.5 (8.3%)</td>
</tr>
</tbody>
</table>

#### 6.4.3 Preferred language for reading

#### 6.4.4 Family socio-economic status

#### 6.4.5 Family composition

#### 6.4.6 Literacy in the home

#### 6.4.7 Books per household

#### 6.4.8 Preferences in text types
Low Scorers (N = 12) 42 3.5 (11.6%)

Table 33: Absences over 18 school days of high and low scorers in Zambia

<table>
<thead>
<tr>
<th></th>
<th>Total pupil-days absent (max: 216)</th>
<th>Mean days absent per pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scorers (N = 12)</td>
<td>5</td>
<td>0.42 (2.3%)</td>
</tr>
<tr>
<td>Low Scorers (N = 12)</td>
<td>30</td>
<td>2.50 (13.9%)</td>
</tr>
</tbody>
</table>

Low scorers tend to be absent more than high scores, with low scoring Zambian pupils having 6 times more absences than high scoring pupils. (It should be pointed out that one low-scoring pupil accounted for 14 days of the absences in that group; nonetheless even if that pupil is removed, the rate of absence of low scoring pupils is still more than 3 times that of high scoring pupils). In Malawi low scoring pupils have roughly 40% more absences than high scoring pupils. Pupil absenteeism could be a significant factor contributing to intra-school pupil variation.

However, it should be noted that absence from school may not be readily amenable to change, as it is likely to be affected by the family attitude to education, and family circumstances, especially poverty, as suggested in this extract from the interview with a 13 year old Zambian girl, who had been absent 14 times that term. Italics indicate that the original Nyanja has been translated into English. The pupil has just said that she cannot read either the English or Nyanja texts (I = interviewer; P = pupil):

*I: There's nothing you know?*

*P: No.*

*I: Oh. Can't you try even a bit?*

*P: No.*

*I: How often do you come to school?*

*P: Ah... when I don't have a pen, I don't come to school.*

*I: If you don't have a pen, you don't come?*

*P: Yes. So like - since we opened, I have only been twice, because I didn't have a pen.*

*I: You usually miss school. Doesn't your mother scold you when you miss school?*

*P: But because I did not have the books.....*

*I: I see, even if you miss class, they don't scold you if you don't have books.*

*P: That's right.*
This girl scored 3 in the English test, and 2 in the Nyanja test (both below the chance score of 4); she would appear to be for all practical purposes a non-reader. Moreover, there is probably little academic compensation in her background, which is economically poor. A further example is the following, from Zambian pupil, again translated from Nyanja:

**ZCB04:**

*I:* (.....) you are sometimes absent?
*P:* Yes.
*I:* When do you miss school?
*P:* Like when I don't have an exercise book.
*I:* When you don't have books?
*P:* Yes, or when I wash my uniform.
*I:* Oh, when you miss school, does your mother scold you?
*P:* Yes, she does.
*I:* And when she scolds you, what do you do?
*P:* Nothing.

While some children do not dare to come to school without books, shoes, or uniform (no longer compulsory according to the Ministry officials in both countries, but often insisted on by teachers), some may face problems at home if their parents disapprove of absence:

**ZDB12:**

*I:* (...) How often do you come to school?
*P:* Very often.
*I:* Do you ever miss school?
*P:* Once in a while.
*I:* Like when?
*P:* Like when I have a pain in my leg.
*I:* When you miss school doesn't your mother scold you?
*P:* She does.
*I:* What about at home?
*P:* My father beats me.

### 6.4.3 Preferred language for reading

Children in both countries were asked whether they preferred to read in English or in the local language. Their responses were:

**Table 34: Preferred Language for Reading in Malawi**
There is a pronounced tendency for high scorers to prefer to read in English, while low scorers are equally divided between preferring English and Chichewa. Pupils were also asked to give reasons for their choice, with the following results:

**Table 35: Reasons for Preferring English or Chichewa for Reading**

<table>
<thead>
<tr>
<th>Reasons for preferring</th>
<th>In order to learn</th>
<th>Because it's easy</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading in English (N=15)</td>
<td>11</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Reading in Chichewa (N=8)</td>
<td>0</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

High and low scorers display instrumental motivation in reading English for self-improvement or to make progress in school, whereas Chichewa is preferred because it is easy to read. No one suggests that they read English because it is easy, or that they read Chichewa in order to learn. The response to this question may reflect the fact that there is relatively little "academic" information available in print in Chichewa. The response also suggests that the goal of reading in English for pleasure may be difficult to attain, given that reading in English is not perceived as easy.

The responses of the Zambian children as to whether they preferred to read in English or in Nyanja, were:

**Table 36: Preferred Language for Reading in Zambia**

<table>
<thead>
<tr>
<th>Preferred Language</th>
<th>High Scorers</th>
<th>Low Scorers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading in English</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Reading in Nyanja</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

There is a tendency for high and low scorers to prefer to read in English. Since some of these low scoring pupils could not read in either language, the issue of preference is problematic; inquiry on this point indicated that they were referring to the English reading lesson (as opposed to the Nyanja reading lesson), rather than the process of
independent reading. Pupils were also asked to give reasons for their language choice, with the following results:

**Table 37: Reasons for Preferring English or Nyanja for Reading**

<table>
<thead>
<tr>
<th>Reasons for preferring to read in English (N=21)</th>
<th>Because it's easy</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasons for preferring to read in Nyanja (N=3)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>3</td>
</tr>
</tbody>
</table>

It is rather surprising that none of the pupils reports an instrumental motivation in reading English, as the Malawian pupils did. These findings are also surprising in that many pupils who prefer to read English and say that it is "easy", report difficulties in reading it. The most likely explanation is that they mean "English is relatively easier to read than Nyanja" (which is born out by their test results and negative reaction to Nyanja texts - see below), rather than simply "English is easy to read".

**6.4.4 Family socio-economic status**

Categorisation according to the British system is not appropriate for Zambia or Malawi, since they have a very different socio-economic structure. Even establishing if the carers of the pupils are working or not can be difficult, as there is a tendency to count only waged occupation as "work"; thus one Zambian boy said of his uncle and grandparents, with whom he lived "They don't work, they are only farmers." For the purposes of this research, a three part socio-economic categorisation was drawn up, as follows:

- 0 = predominantly manual, informal training (e.g. subsistence farmer; cleaner)
- 1 = manual and non-manual, formal training (e.g. policeman, driver)
- 2 = non-manual, with secondary/tertiary education (e.g. teacher, civil servant)

The families were categorised according to the "highest status" adult in the household. The categorisations reveal the following:

**Table 38: Socio-economic Status of the Families of High and Low Scorers in Malawi**

| Total in Category 0 | Total in Category 1 | Total in Category 2 |
Table 39: Socio-economic Status of the Families of High and Low Scorers in Zambia

<table>
<thead>
<tr>
<th></th>
<th align="right">Total in Category 0</th>
<th align="right">Total in Category 1</th>
<th align="right">Total in Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scorers</td>
<td align="right">3</td>
<td align="right">3</td>
<td align="right">6</td>
</tr>
<tr>
<td>Low Scorers</td>
<td align="right">3</td>
<td align="right">8</td>
<td align="right">1</td>
</tr>
</tbody>
</table>

This finding indicates a moderate positive relationship between family background and score, with high scores associated with relatively privileged family background. It suggests that in Malawi and Zambia, as elsewhere, social background influences school performance: 75% or more of low scorers are in category 0 or 1; 50% of high scorers are in the "highest" category 2. It is therefore not likely that pupil performance in general will be altered only by what happens in school. Absenteeism of children from poor backgrounds, for example, will probably persist. However, although background influences performance, it does not necessarily determine performance, and there are exceptions to the general pattern: for example 25% of high scorers in both countries are in the "lowest" socio-economic category.

6.4.5 Family composition

Assigning Zambian and Malawian children to families of a given composition is difficult. Some children move in temporarily with different relations (e.g. in order to be closer to school), while those that live in nuclear families may have considerable contact with other relatives.

Family composition here refers to the pupils' situation at the time of the interview, and is reported here in terms of four main categories:

(i) nuclear family (mother and father, plus siblings if applicable)
(ii) mother only (plus siblings if applicable)
(iii) extended family (at least one parent, plus at least one adult relative)
(iv) other (living with relatives but with neither mother nor father)

There were no cases of children living with their father as sole carer.

Table 40: Composition of the Families of High and Low Scorers in Malawi
Table 41: Composition of the Families of High and Low Scorers in Zambia

<table>
<thead>
<tr>
<th></th>
<th>Nuclear</th>
<th>Mother sole parent</th>
<th>Extended</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scorers</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Low Scorers</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

There is no overwhelming association of any family composition with high or low scoring, although we see that nearly half of the low scoring children in Zambia live with a group that does not include either mother or father. It is possible that such children are carrying out a heavier than normal load of domestic work. However, this is not the case in Malawi. Children of families headed by a lone mother are probably under-represented in this research, since they are less likely to be attending school regularly, and hence less likely to feature in the research.

6.4.6 Literacy in the home

Pupils were asked to what extent the adults with whom they lived could read in English and in any local language. Answers were categorised as "Yes", "A little" or "No" based on the claim made for the most proficient adult in the household.

Table 42: Family Literacy in English of High and Low Scorers in Malawi

<table>
<thead>
<tr>
<th></th>
<th>Literate: Yes</th>
<th>Literate: A little</th>
<th>Literate: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scorers</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Low Scorers</td>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 43: Family Literacy in English of High and Low Scorers in Zambia

<table>
<thead>
<tr>
<th></th>
<th>Literate: Yes</th>
<th>Literate: A little</th>
<th>Literate: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scorers</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
There is a weak relationship in Malawi between family literacy in English in the expected direction with higher scoring pupils tending to come from more English literate backgrounds. However, there seems to be no relationship between family literacy in English, and scoring level in English in Zambia.

**Table 44: Family Literacy in Local Language of High and Low Scorers in Malawi**

<table>
<thead>
<tr>
<th></th>
<th>Literate: Yes</th>
<th>Literate: A little</th>
<th>Literate: No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Scorers</strong></td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Low Scorers</strong></td>
<td>11</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 45: Family Literacy in Local Language of High and Low Scorers in Zambia**

<table>
<thead>
<tr>
<th></th>
<th>Literate: Yes</th>
<th>Literate: A little</th>
<th>Literate: No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Scorers</strong></td>
<td>10</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Low Scorers</strong></td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

There seems to be no relationship between family literacy in local language and scoring level in English in either country. However, the investigation may not have captured a crucial element, namely the family attitudes to, and practices of, literacy.

**6.4.7 Books per household**

Children were asked to estimate how many books were in their home. Their answers had to be cautiously dealt with by the interviewers, since pupils may count magazines, and school exercise books taken home, as books. Responses were divided into two categories: 0 to 20, and 21 or more. Results were:

**Table 46: Books per Household of High and Low Scorers in Malawi**

<table>
<thead>
<tr>
<th></th>
<th>0 - 20 books</th>
<th>21 + books</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Scorers</strong></td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td><strong>Low Scorers</strong></td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>
The expected picture emerges in Malawi with nearly half of the high scoring pupils claiming more than 20 books in the house, while none of the low scoring children do so. The Zambia finding is unexpected, and there is no obvious explanation, especially in view of the result in Malawi. However, having books is not of course the same as reading them: one child reporting a few books in the home, added that they were a gift from her father's employer, and that nobody ever looked at them! The types of books most frequently possessed were: religious (15 Zambia; 12 Malawi), educational (2 Zambia; 9 Malawi), stories (2 Zambia; 7 Malawi), related to family's work (2 Zambia; 2 Malawi).

### 6.4.8 Preferences in text types

The answers to the question "What sort of things do you like to read?" was left open, so as not to suggest responses to the children. Answers were grouped together into the following classifications, with some children expressing multiple "likes". There may be some overlap between the classification "school books" and "stories", since the school books also contain stories.

#### Table 48: Reading Preferences of High and Low Scorers in Zambia

<table>
<thead>
<tr>
<th></th>
<th>High Scorers</th>
<th>Low Scorers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stories</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>School Books</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Religious books</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nothing</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Table 49: Reading Preferences of High and Low Scorers in Malawi

<table>
<thead>
<tr>
<th></th>
<th>High Scorers</th>
<th>Low Scorers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Country 1</td>
<td>Country 2</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>School books</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Stories</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Religious books</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

School books and stories are the most popular in both countries, with religious books third, although they were the books most frequently possessed.
7 Individual reading sessions

7.1 General description
7.2 The English reading passage
7.3 Findings of individual English reading investigation
7.4 The local languages reading passage
7.5 Findings of individual Malawian reading sessions
7.6 Findings of individual Zambian reading sessions

7.1 General description

This was the second part of the individual reading investigation. Twenty four pupils were selected from each country, 12 high scoring and 12 low scoring (see 6.2 for details). Each pupil was asked to read two texts, one in English, and one in the local language. Each text was followed by oral questions on the text, and any difficulties were discussed. The text for English appears in section 7.2 below, and for Chichewa/Nyanja in Appendix I. The whole session was audio-recorded.

7.2 The English reading passage

This passage had been specially constructed so that the topic (waiting at a bus stop) would be familiar, together with most, but not all, of the language. Five words judged unlikely to be familiar were deliberately introduced, namely: elapsed, trundling, vermilion, snapdragons, grenadine. The exact meaning of these words is not crucial to an understanding of the text as a whole, and the main features of their meaning are recoverable from context. The purpose of the questions (asked and answered in either English or Nyanja) was:

(i) to investigate the pupil's inferential ability in reading
(ii) to ascertain difficulties that pupils identified in reading
(iii) to investigate the children's ability to attribute meaning to unknown words from context.
The principal questions and prompts suggested are provided below. However this investigation was intended to be a discussion rather than an interrogation, and researchers were encouraged to discuss and reword questions as they saw fit, using English or a local language.

**Jane and Mary**

*Jane was at the bus stop. She was waiting for her sister Mary. The bus was late. After ten minutes had elapsed, the old bus came trundling along the road and stopped at the bus stop.*

*When Mary got off the bus, Jane was surprised. Her sister was not wearing a blue dress but a vermilion one. And she was carrying a big bunch of flowers - there were roses, daisies and yellow snapdragons.*

*Jane ran up to her sister. "Mary, how are you?" she said. "Where did you get that new dress, and why are you carrying those flowers?"*

*"Hello, Jane," said Mary. "Oh, I'm so thirsty. Let's go and have a grenadine. Then I'll tell you everything."

**Sample of Suggested Questions and Prompts**

1) What's this passage about?

   (1a) Where was Jane?
   (1b) What was she doing?
   (1c) Who is Mary?
   (1d) Did Mary get off a bus?)

2) Is there anything you don't understand?

3a) Was the bus late?
3b) Why do you think it was late?

4a) Was Jane surprised?
4b) Why was Jane surprised?

5) What is "vermilion"?
5a) What was Mary wearing?
5b) What did Jane think Mary would be wearing?
6) What is a "snapdragon"?
6a) What was Mary carrying?
6b) What is "a rose"?

The recordings were transcribed, and where necessary translated. Since the data is essentially "talk" it does not lend itself in all instances to quantifiable analysis.

**Transcription Key:**

P: the "target" pupil
PF: one of the target pupil's friends
I: interviewer

Utterances that were originally in the local language have been translated into English and appear in italics. Lexical and syntactic deviancies from standard English have been preserved. No attempt has been made to reproduce the pupils' pronunciation.

### 7.3 Findings of individual English reading investigation

7.3.1 Understanding the gist of the text

7.3.2 Direct reference questions

7.3.3 Inference questions

7.3.4 Difficulties in the text reported by pupils

7.3.5 Guessing based on the appearance of words

7.3.6 Use of context

7.3.7 Inferencing word meaning from world knowledge

**7.3.1 Understanding the gist of the text**

In Zambia all of the high scoring group, and 11 of the 12 in the low scoring group were able to give adequate answers to the first question "What's the passage about?". Acceptable responses included "It's about Jane and Mary" or "Jane was waiting for her sister". Likewise in Malawi all pupils high scorers gave adequate answers to the question. Six of the Malawian low scorers, however, gave unacceptable responses e.g. starting to reread the text, or giving responses such as "buying a dress" or "the buses was late" (sic).

**7.3.2 Direct reference questions**
Direct reference questions may by definition be answered by quotation of the appropriate sentence or section of the text. The direct reference questions most commonly asked were 1a (Where was Jane?) and 1b (What was she doing?). These questions were generally correctly answered, although it may be that pupils are simply reading aloud the sentences from the text in sequence, and assuming that the questions follow that sequence. This strategy can lead to incorrect answers in sequences such as:

MAB27 (there are other similar sequences)
I: Where was Jane?
P: Jane was at the bus stop. (first sentence)
I: What was she doing?
P: She was waiting for her sister. (second sentence)
I: Did Mary get off the bus?
P: The bus was late. (third sentence)

Pupils generally provided acceptable answers to direct reference questions, and there does not seem to be any striking differentiation between the high and low scorers, as the following tables indicate:

Table 50: Responses to Direct Reference Questions, Malawi

<table>
<thead>
<tr>
<th></th>
<th>Acceptable</th>
<th>Unacceptable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High scorers</td>
<td>17 (81%)</td>
<td>4 (19%)</td>
<td>21 (100%)</td>
</tr>
<tr>
<td>Low scorers</td>
<td>18 (86%)</td>
<td>3 (16%)</td>
<td>21 (100%)</td>
</tr>
</tbody>
</table>

Table 51: Responses to Direct Reference Questions, Zambia

<table>
<thead>
<tr>
<th></th>
<th>Acceptable</th>
<th>Unacceptable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High scorers</td>
<td>34 (97%)</td>
<td>1 (3%)</td>
<td>35 (100%)</td>
</tr>
<tr>
<td>Low scorers</td>
<td>12 (75%)</td>
<td>4 (25%)</td>
<td>16 (100%)</td>
</tr>
</tbody>
</table>

The relatively high scores achieved in this category by pupils who in other respects had great difficulties confirm that direct reference questions are likely to be unreliable indicators of comprehension, and should be used with caution in the classroom, and in tests.

7.3.3 Inference questions
The questions asked in this case were of two types:

(i) text based, where the answer may be inferred from another section of the text (e.g. Why was Jane surprised? where the answer provided in the text is: Her sister was not wearing a blue dress.)

(ii) based in the pupil's knowledge of the world (e.g. Why do you think Mary was carrying a bunch of flowers?), where the answer is not in the text, and therefore has to come from the pupil's "head". Such suppositional inferences cannot be judged "right" or "wrong" in terms of the text, but simply more or less reasonable in the light of our general knowledge of the world.

(i) **Text Based Inference**

There are a number of examples of appropriate text-based inferences, e.g.:

ZEG06
I: Was Jane surprised?
P: Yes.
I: Why was she surprised?
P: At the dress Mary was wearing.

Inappropriate inference from the text include:

MDG15
I: Was Jane surprised?
P: Yes, she was.
I: Why was Jane surprised?
P: At the bus coming late.

The results of text-based inference questions were as follows:

**Table 52: Results of Text-based Inference Questions, Malawi**

<table>
<thead>
<tr>
<th>Unacceptable</th>
<th>Acceptable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High scorers</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Low scorers</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 53: Results of Text-based Inference Questions, Zambia**
As expected, there is a tendency for high scorers to produce a greater number of acceptable responses. However, even high scorers have a degree of difficulty with inference questions.

(ii) Inference from World Knowledge

Reasonable answers derived from inferencing based on knowledge of the world include the following:

ZEB08:
I: What is [the passage] all about?
P: I thought Jane was going to a funeral.
I: What makes you think she was going to a funeral? Maybe you can have some ideas.
P: Because she was carrying roses, flowers.

ZDB12
I: Was the bus late?
P: Yes.
I: Why do you think the bus was late? Why do you think the bus was late? What could make the bus late?
P: If not many people come.

Here it should be appreciated that many buses in Zambia and Malawi have approximate departure times, but do not leave until they are full. The bus departure is therefore delayed - sometimes up to a day - if not many people have come. This is a good example of inference being determined by cultural context.

7.3.4 Difficulties in the text reported by pupils

With one exception in each country, all the difficulties identified by pupils were individual words. It may be that vocabulary was in fact the only source of difficulty, and that there were no other difficulties arising from discoursal convention or lack of appropriate background knowledge. Interestingly in both countries more high scorers than low scorers (a total of 16 as opposed to 12) identify words as unknown. Either some low scorers were not aware of what they did not know, or they did not wish to
admit ignorance. Another possibility is that only good readers were confident enough to admit ignorance. Subsequent questioning by the interviewers revealed that the low scorers had in fact considerable difficulties with vocabulary. The words most commonly reported as unknown were, as expected, one or more of the 5 words prejudged to be unfamiliar (elapsed, trundling, vermilion, snapdragon, grenadine) which had been deliberately written in to the passage. In Zambia they accounted for 56 of the 66 tokens identified by pupils as unknown. Other words which some pupils did not know included: daisies, bunch, surprised, sister, everything, thirsty.

The strategies that the pupils had recourse to for assigning meaning to unknown words, include: (i) guessing based on the appearance of the word; (ii) use of world knowledge; (iii) using context.

### 7.3.5 Guessing based on the appearance of words

Guessing meanings of unknown words on the basis of their similarity to known words occurs in many instances, even if the guess makes no sense in the surrounding context. Guesses based on appearance include: vermilion: guessed as chameleon, nylon and million; daisies: guessed as many days and days; snapdragon guessed as photograph (from "snap"); thirsty guessed as Thursday and first as in the following examples:

**MBG20**

I: What is vermilion?
P: It's a million.
I: Not million, but vermilion.
P: I only know million.

**MMFB19**

I: Thirsty. What is it in Chichewa?
P: Thirsty?
I: Mm.
P: On Wednesday, thirsty is Wednesday.
I: Not Thursday, thirsty.
P: Thirsty.
PF: First.
I: Again?
PF: First thing.

By a process of extension "vermilion" is also more plausibly glossed as "expensive" by 4 pupils, e.g.:
7.3.6 Use of context

In this investigation, use of context to attribute meaning to unknown words is usually prompted by the interviewer, and does not appear to be a strategy that pupils spontaneously have recourse to. Certainly classroom observation suggests that guessing from context is a strategy that teachers do not encourage pupils to adopt.

Context is, of course, unlikely to yield the exact meaning of an unknown word, but rather a partial meaning. Thus in the present text pupils might guess that "vermilion" is a colour, but not exactly what sort of colour etc.. Clearly there is an element of subjectivity in assessing the acceptability of these "guesses"; in this study anything that indicated that a crucial semantic feature had been identified was accepted (e.g. "slowly" or "moving" were accepted for "trundling"). Examples of acceptable prompted guessing include:

MBG11
I: What is vermilion? (Pause) What was Mary wearing?
P: Mary is wearing...
PF: Mary was wearing blue dress.
I: Yes. What did Jane think Mary would be wearing?
P: How are you?
I: No.
P: Hello Jane.
I: No. Mary was wearing a blue dress and Jane thought... It's a... Mary was not wearing a blue dress - was not wearing a blue dress, but Jane though Mary would be wearing a blue dress, but Mary was wearing a vermilion dress. What is vermilion?
P: A red one.

MCG24
R: What is a snapdragon?
P: I don't know.
I: What was Mary carrying? (Pause)
P: A big bunch of flowers.
R: What is a rose?
P: Rose - I think they are flowers.
I: Then what is a snapdragon?
P: I don't know.
I: You read from "And she was carrying -
(Pause, pupil reads silently)
P: So they are flowers too.

On some occasions, the interviewer devises a situational context outside the text in an attempt to help the pupil with the unknown word. This strategy may be thwarted by the pupils reacting unpredictably, as in this example:

MBG20
P: (identifies as a word she doesn't know) Surprised.
I: You mean this one? Read the sentence again.
P: When Mary got off the bus, Jane was surprised.
I: What's the meaning? Mmm?
P: She was shouting.
I: Shouting? If you see four policemen coming in here, how would you feel?
P: I would be frightened.
I: Frightened - before you are frightened, what might happen first?
P: I will tell my friend.
I: Telling a friend. Right. How would you feel if you saw your father come into school?
P: Happy.
I: Happy? Oh, what about seeing your mother coming in a pair of short trousers?
P: It would be a disgrace.
I: All right. Thanks very much.

Although this Malawian pupil obviously understood the interviewer, she consistently did not propose the Chichewa version of "surprised" which the interviewer was attempting to elicit.

There is a tendency, as one would expect, for high scorers to produce a higher frequency of acceptable answers when prompted, than low scorers. Of the words that were identified as unknown high scorers were able to arrive at a higher proportion of acceptable answers, as the following tables indicate:

Table 54: Acceptable responses by Malawian pupils to prompts for unknown words
<table>
<thead>
<tr>
<th></th>
<th>Number of prompted occasions</th>
<th>Number of acceptable responses</th>
<th>Percentage of acceptable responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>High scorers</td>
<td>47</td>
<td>26</td>
<td>57.8%</td>
</tr>
<tr>
<td>Low scorers</td>
<td>38</td>
<td>9</td>
<td>23.7%</td>
</tr>
</tbody>
</table>

Table 55: Acceptable responses by Zambian pupils to prompts for unknown words

<table>
<thead>
<tr>
<th></th>
<th>Number of prompted occasions</th>
<th>Number of acceptable responses</th>
<th>Percentage of acceptable responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>High scorers</td>
<td>43</td>
<td>38</td>
<td>88%</td>
</tr>
<tr>
<td>Low scorers</td>
<td>31</td>
<td>16</td>
<td>52%</td>
</tr>
</tbody>
</table>

One might speculate that high scorers are probably able to use the context more appropriately because they understand it better, and because they may have more confidence than low scorers.

7.3.7 Inferencing word meaning from world knowledge

Instances where world knowledge does seem to be a factor include the following, where we may surmise that the pupil's experience tells her that an "old bus" probably travels slowly:

ZEG21:
I: Was the bus late?
P: Yes, it was.
I: Why do you think the bus was late?
P: Because it was old.

Cases where pupils use world knowledge to make inappropriate guesses are more easily identified, e.g.:

MAB27
I: What was Mary carrying?
(Pause)
P: She was carrying a big bunch of flowers.
I: Yes. What is a rose?
P: There were rose, daisies, and yellow snapdragons.
I: Then what is a rose?
P: Rose is a name of a person.
7.4 The local languages reading passage

The reading passage for both Malawi and Zambia was based upon an extract from the Zambian coursebook entitled Werenga Cinyanja. The same passage was given to the Malawian and Zambian pupils. The topic "building a school" was considered sufficiently familiar. The text begins as follows:

*Mfumu Mitulo atacoka pamudzi paja nyakwawa Kameta ndi anthu ake pamodzi ndi ena ocokera m'midzi yozungulira, anagundika nayo nchito youmba ncherwa zomangira sukulu....*(see Appendix I for full text).

[Translation:

After Chief Mitulo had left the village, Headman Kameta and his people, with some others from nearby villages, set about making bricks to build a school.

The women brought water and grass to cover the bricks, while the boys carried the brick-moulds. Some of the men were in the pit treading the clay and water, while other men were busy cutting wood to bake the bricks.

When the bricks were ready, Headman Kameta asked Mr Jamu, who knew how to build with bricks, to start digging the foundation for the school.]

All questions and discussion on this passage were carried out in the local language, by the research assistants. As in the case of the English text, different types of questions were asked. The following are typical examples:

1. What is this passage about?
2. Is there anything you don't understand?
3. Who was the village Headman?
4. What did the women do?
5. Who cut the wood?
(3, 4 and 5 are direct reference questions)
6. Why did the women cover the bricks?
7. Why did Kameta ask Mr Jamu to start digging the foundation?
(This question requires an inference based on the text)

7.5 Findings of individual Malawian reading sessions

Two pupils chose to read the text silently, while the other 22 read aloud. All these pupils read fairly fluently with occasional deviances which were judged to be performance slips, rather than due to lack of competence. Questions 1, 3, 4, 5, 6 and 7 were handled with no difficulty in all cases where they were asked.

For question 2, the words which the Malawian researchers felt might cause difficulty were: anagundika (started, set about), zikombole (brick moulds), and nkando (pit). As in the case of the English text, the only difficulties identified by pupils are lexical items, and as in English, there is an inverse correlation between group level and identification of difficulty, with 4 readers from high scoring group admitting difficulty, and none from the low scoring group. The words which the pupils actually identified as difficult were: anagundika, nkando, (as predicted) together with panthawiyi (while), nyakwawa (headman, adviser), and ncherwa (bricks). This last word, ncherwa, appears to have been identified because of its spelling. However, the unexpected spelling does not seem to have confused the pupils, as this example makes clear:

MCG12
I: How about the second paragraph?
P: There is a difficult word. The word has the same meaning but the spelling is different.
I: What is the word?
P: Ncherwa.
I: What is ncherwa?
P: Njerwa. I know that the word is spelt "njerwa". I find the spelling "ncherwa" strange.
I: Yes. Then what is "njerwa"?
P: It is moulded soil.
I: Yes

This suggests Malawian pupils are quite "robust" with respect to handling printed words that vary from their own pronunciation. The word identified as difficult on most occasions was nkando (pit); 14 pupils were not able to assign the correct meaning to it.
Responses to the question included "I've forgotten", "Something fearsome", and "In the soil". This word is not in fact crucial to an understanding of the passage. Despite that difficulty, the clear impression from the sessions is that Malawian pupils are fluent and confident in responding to the text. There is less hesitation, less quoting directly from the text, and almost every answer is acceptable. As a result, the researchers could satisfy themselves fairly quickly that the text had been processed with understanding.

7.6 Findings of individual Zambian reading sessions

The most striking feature of the reading in Nyanja is the very large proportion of pupils who said they were unable to read it, or who tried and failed to read it. In the high scoring group 5 out of 12 pupils either could not, or did not want to, read the Nyanja text aloud, while the same was true of 6 out of 8 middle scoring pupils, and all 12 low scoring pupils.

In all, only 9 out of 32 pupils gave evidence of being able to read the Nyanja text, and are perforce the subjects for this analysis of reading strategies, although comments made by those who could not read the text also appear. The following are examples of the responses of pupils who were not prepared to read the text (again italics indicate translation from Nyanja):

ZDB12
I: OK. Now we are going to try Nyanja. I'm sure you'll be able to do something. Do you want to read silently or aloud?
P: Aloud.
I: Read.
P: Nyanja is very difficult for me. I only know a few things.
I: Why? Don't you learn Nyanja?
P: We do.
I: But why? Because you've said that at home you use Nyanja and you've said you learn it in class? You don't like it? So you can't try even a bit?
P: Just a few bits.
I: OK, what are those few bits? What are they?.....
P: I just don't think I can manage.

ZAB14
I: (...) Now let's try the Nyanja passage. (...) 
P: You mean to read?
I: Yes, give it a try.
P: I don't know Nyanja.
I: Ah- no - give it a little try. Would you like to read to yourself or aloud, so that I can hear? (pause) Will you? You mean you can’t try because it’s difficult?
P: Yes.

One pupil, who makes an effort to read the Nyanja is forced to give up, as are the two friends accompanying him:

ZFB04
I: ... Now would you like to try reading the Nyanja passage? It's good to try Nyanja because -
P: Oh yes, let's try the Nyanja, because it is difficult for us.
I: It is difficult for you? What about you Misheck? Is it difficult for you too?
PF1: I don't know how to read Nyanja.
I: So you don't know how to read? What about you Lufeyo?
PF2: I can try a bit.
I: So we can try - can't we? Are you going to share it or what are you going to do? Before we start reading - may I ask who is going to read?
PF2: Let me try.
I: OK, you start from here at the beginning
P: Mfumu.....
I: OK, Rodney help your friend.
PF: Mfumu - Ma - ah, I can’t.
I: OK, Rodney can’t manage. Maybe Lufeyo can try?
PF: Mu- Mu- Mfumu ali napita pa- pa-
I: I don’t think Lufeyo can manage either, because some of what you've read is not there in this passage.

Possible reasons for the high incidence of refusals, and failure to read the Nyanja text are discussed below. Turning to the 9 pupils who actually read the Nyanja passage, all appear to have understood the gist of the passage. Typical responses include:

ZDB01
I: What does the passage talk about?
P: It talks about a school.
I: What about it?
P: Building a school.

ZFG17
I: (....) what's the main thing in the passage?
P: That the school will be built.
A total of 20 direct reference questions were asked, and (with one exception) all were answered appropriately, e.g.:

ZCB04
I: Which chief came from that village?
P: Chief Mitulo.
I: Who brought the water?
P: Women.
I: What about the men? What were they doing?
P: They were trampling the mud.

The Zambian researchers identified the same potentially difficult words as the Malawians, namely: *anagundika* (started on, undertook), *zikombole* (brick moulds) and *nkhando* (pit). Other words which were the researchers asked about were, *nyakwawa* (headman, adviser), *ncherwa* (bricks) and *zodzathenthera* (burning/firing). Pupils were asked about these 6 words a total of 23 occasions. On 14 occasions pupils gave appropriate responses spontaneously, while on 4 occasions they were prompted to the answer, and on 5 occasions the answers were inappropriate. Examples of correct answers from prompting include:

ZCB13
I: What about this word "nyakwawa"? What does it mean?
P: "Nyakwawa"?
I: Yes, "nyakwawa", what do you think it could mean?
P: It's too hard for me.
I: "Mfumu Mitulo atacoka pamudzi paja nyakwawa Kameta ndi anthu ake pamodzi ndi ena ockera m'midzi yozungulira" Now whenever you read "nyakwawa Kameta and his people", what do you think it means?
P: The adviser.
I: Good. That's it.

ZEG21
I: What about "ncherwa", do you know it?
P: Isn't it those fruits? [probably thinking of "nchele", the strangler fig]
I: No, I'm talking about "ncherwa" since they are talking about building a school. What do you think they are?
P: Isn't it that rope for tying?
I: What's that?
P: The rope that's made from tree bark.
O: No, it not that, because "ncherwa" are made from mud.
P: They are bricks.
Examples of inappropriate responses include:

ZFG17

I: What are "ncherwa"?
P: I don't know.
I: What do you think "ncherwa" is?
P: That you are late [probably thinking of the verb "-chedwa", to be late]

As in the case of English, the above cases seem to indicate a tendency to attribute meaning to unknown words based on their appearance, or similarity to known words, rather than through using context. The general impression of the researchers concerning the 9 pupils who read the Nyanja text is that 2 had only a very general idea of what the text was about, while 7 appeared to have a reasonable comprehension, although they had difficulties with some individual words.

Nyanja is a language that is used by most of these 32 Zambian pupils at home, by all of them on a daily basis with their friends, and is also in theory the local Zambian language taught in their primary schools. Their poor overall performance in reading it is probably due to two reasons. First the variety of language used for the individual reading, and second lack of exposure to written Nyanja (see 8.2 and 8.3 for elaboration of these reasons).
8 Discussion

8.1 Main findings

8.2 Standard and non-standard Nyanja in Zambia
8.3 Accounting for local language differences
8.4 Implications of findings for learning in English across the curriculum
8.5 Possibilities for improvement in education and reading
8.6 Conclusion

8.1 Main findings

From the observations, tests and individual reading investigations carried out in this research, the following main points emerge:

- there is little difference in English reading proficiency between Malawian and Zambian pupils, although the latter have officially had 4 years of English medium teaching.

- there are considerable urban/rural differences in English reading proficiency in both countries, with the urban areas outperforming the rural areas

- in both Malawi and Zambia, many pupils do not appear to see reading in English as a "meaning making" process, possibly because their level of English is too low. They are highly text and word bound, and do not seem to apply inferencing strategies to textual relations or word meanings when reading English

- Malawian pupils read much better in Chichewa than Zambian pupils read in Nyanja

- in Malawi the Chichewa results do not discriminate against rural pupils and girls, unlike the English results
• although the individual investigations were carried out on only small numbers of pupils, there is a tendency for higher proficiency in English reading to be associated with home backgrounds where family members have relatively high status jobs

• there appears to be a positive relationship between reading proficiency in English, and school attendance

• the teaching of reading in English is in general not effective in that, for both Zambia and Malawi, the great majority of pupils almost certainly do not read English well enough to be able to use this skill to learn in other subjects (see 8.4 below)

These results need to be discussed with caution, since it not possible to control all the variables in each country. For example, the Malawi pupil: teacher ratio of 78.1 to 1 (MoE(M), 1991: 34), is far higher than Zambia's of 43.5 to 1 (MoE(Z), 1991: 161). On the other hand, Malawi testees are estimated to have had about one year more at school than their Zambian counterparts partly because of their higher incidence of repetition of school years, and partly because of the fact that the testing point of May/June was at different stages in the two countries' school year. While such factors may account for the direction of the English results in favour of Malawian pupils, they could by no means account for the large differences in local language reading performance, where Malawian pupils are clearly superior.

The Malawian superiority in local language reading tests is supported by the reading investigation when all Malawian pupils were judged to have read the text with understanding, while less than a third of Zambian pupils were able or willing to read the text. There appear to be two reasons for the difference between the two groups: the first is to do with the fact that the "ordinary" Nyanja of the Zambian pupils differs from the Nyanja used in the tests; the second, and in my view the more substantial reason, is the lack of attention to local languages in Zambia.

8.2 Standard and non-standard Nyanja in Zambia

The variety of Nyanja in which many Zambian children are competent is "town Nyanja" (see Kashoki, 1990: 137; Serpell, 1978: 147), a non-standard variety characterised by borrowings from English as well as other Zambian languages. The "standard Nyanja" of the Zambian language course books is a different variety, said to be based on Malawian Chichewa which is generally regarded as a "purer" or, in the
African metaphor, "deeper", form. Thus many Zambian children are more familiar with the "town Nyanja" term *mabrikisi* (from the English "bricks", but with Nyanja *ma-* as a plural marker, and Nyanja phonology) rather than the standard *ncherwa*. A telling anecdote is that while one Zambian boy only knew *mabrikisi*, and not *ncherwa*, a Malawian girl not only understood *ncherwa*, but was able to cope with different forms of the word (see 7.5). There are a number of references by the Zambian pupils to this problem of language variety, e.g.:

ZDB12

*I: By the way, why do think this Nyanja is difficult for you? Is it different from the one you speak?*

*P: Yes.*

*I: How is this Nyanja here? [indicating text]*

*P: This is very deep.*

*I: But if you studied hard, you could understand it, couldn't you?*

*P: Yes.*

Pupils are well aware of the differences between "town Nyanja" and "standard Nyanja" and the fact that the former is used in speaking and the latter in writing, as the following extracts indicate:

ZEG21

*P: I don't know Nyanja so well. The way we read it is different from the way we speak.*

*I: So, if the Nyanja that you speak is what you were given to read, would you like it?*

*P: Yes.*

ZDB19

*I: Do you like Nyanja?*

*P: Writing Nyanja?*

*I: Yes.*

*P: No.*

*I: What about speaking?*

*P: Yes, we like it a lot.*

*I: Why do you like speaking Nyanja, but not writing?*

*P: Because when we are told to write, we are given different things, things that are spoken by other people, and not the Nyanja we speak.*

The fact that these children are faced with an unfamiliar variety of their own language when reading has certainly caused them difficulties, and may possibly have alienated some of them. However, if standard school Nyanja had been taught consistently from
year one, and children had achieved literacy in it, then not only would it be familiar to pupils by the time they reached year 5, but such teaching could contribute to disseminating the standard form. The prevailing attitude (although not necessarily one to be uncritically accepted) in Zambia is that "town Nyanja" is not appropriate for formal educational purposes. Of course, Nyanja is not the only language in Zambia, or elsewhere, with standard and non-standard varieties. Indeed, none of Zambia's seven official languages is standardized with respect to dialectal variation according to Kashoki (1990: 75). Lack of standardization does not pose insurmountable problems, and is a matter best left to informed local negotiation.

8.3 Accounting for local language differences

The reason for Malawian pupils' superiority is almost certainly that Chichewa is used as the language of instruction for the first four years. This means that Malawian pupils are accustomed to seeing Chichewa in written form. Zambian pupils on the other hand, rarely see their local language in written form.

Not only are Zambian languages (i.e. one of the "official" seven) not used as media of instruction, they are also neglected even as subjects in primary school teaching, although provision is officially made for teaching them for 4 thirty minute periods per week. The reason for this neglect is identified in Focus on Learning (1992: 45): Teachers teach what is examined. (...) Curriculum areas that are not examined are not likely to be taught or learned. (...) The present practice is to attach theoretical importance to Zambian Languages and to practical subjects. But the examination results in these areas do not contribute in any way to the overall mark for secondary selection. This neglect of Zambian languages is also born out by what the pupils say in interviews:

ZAG13:
I: Don't you do Nyanja?
P: We sometimes do Nyanja, but it was a long time ago. We did it from time to time unless English, we learn English every day. (sic)

ZFB09:
I: Why didn't you want to read Nyanja?
P: We don't know it.
I: But don't you learn Nyanja?
P: We learn it sometimes, once in a while.

ZEG21:
I: Was (the Nyanja passage) difficult for you?
P: It was.
I: Why?
P: Because we don't know the words.
PF: We don't learn Nyanja. We used to do it in grade 4.
I: OK, but you know how to speak Nyanja?
P: Yes.
I: So why is it difficult for you to read?
PF: I used to like Nyanja when our teacher was a woman - Mrs. [...] and Mrs. [...]. They used to teach us Nyanja a lot.
I: What about the man you have now?
P: He doesn't teach us Nyanja.
I: So because you've stopped doing Nyanja, you've come to dislike it?
P: No, we've just forgotten it.

Experimental work (e.g. Segalowitz et al, 1991: 22) suggests that consistent repetition improves speed of automatic recognition in reading; clearly Malawian pupils see their language in written form more frequently and therefore recognise it more readily. However, if consistent repetition over a period of time explains the superiority of the Malawian pupils in reading the local language, then why do Zambian children - with 4 years extra of English as a medium of instruction - not demonstrate higher proficiency in this language than their Malawian counterparts? A probable answer lies in the dominant pedagogic practice in both countries: as the reports on lessons and the lesson transcripts show, teachers rely very heavily in the teaching of reading on the 'look and say' (whole word and whole sentence) approach, with no attention to the presentation or checking of meaning.

The result of this is a 'reading-like' activity, rather than "real" reading. The same techniques are deployed in the content subjects, where pupils are again required to spend a great deal of time repeating aloud what they do not understand.

Automatization of reading skill does not result from repetition alone. Segalowitz et al claim that 'the issue will be how consistently and frequently a given meaning representation is associated with its graphemic representation by the language user' (1991: 22, my italics). Thus, the teaching of reading in English fails, because pupils do not understand what they are repeating, while the teaching of reading in Chichewa in Malawi succeeds, for although it follows the repetitive "look and say" method, the crucial difference is that the children already know the meaning of what they are "looking at and saying".

In conjunction with this, the syllabic method of teaching initial reading (see Appendix A) in Malawi seems to contribute to a principled approach to the early stages of word identification in Chichewa, and also to be a method that all teachers understand and feel
It is probably safe to say that the language and methodology play a positive role in the Malawian success in teaching reading in the local language, a success achieved despite the almost complete absence of books and classes with an average of around 100 pupils, many of which are taught in the open.

The moral of the Malawian achievement would appear to be that if resources are scarce, there is a greater likelihood of success in attempting to teach pupils a known local language, rather than an unknown one. This achievement in the face of severe material difficulties may have lessons for Zambia or other countries where local languages are neglected and English poorly learned. While there may be compelling logistic reasons for not attempting to teach reading in all the 20 or so Zambian languages identified by Kashoki (1990: 109), the teaching of reading in the seven officially recognised languages would be a practical possibility. At the moment large numbers of Zambian pupils have very weak or zero reading competence in two languages. The example of Malawi suggests most could at least achieve some reading competence in the local language.

Teaching people to read in a language, however, is of limited value unless there is something to read in that language. In Malawi there is reading matter in Chichewa in the form of newspaper sections, public signs, religious notices and books as well as private texts. In Zambia there appears to be relatively little public text to read in local languages. However, if the schools produced more readers in local languages, then this might stimulate the production of public and private texts.

8.4 Implications of findings for learning in English across the curriculum

It is difficult to interpret with precision the English test results in terms of the pupils' comprehension of other school texts. However, bearing in mind that in the 1992 research the three 20 item subtests are aimed at three different years (3, 4 and 6), we may make a cautious negative claim that a score of 7 or less out of 20 items in a subtest would indicate inadequate reading comprehension on that subtest. The percentages of pupils scoring 7 or less out of 20 on their subtest were as follows:

Table 56: Percentage of Testees at each year scoring 7 or less on Word Find test for each subtest

| Year 3 Subtest 1 Items 1-20 | Year 4 Subtest 2 Items 21-40 | Year 6 Subtest 3 Items 41-60 |
If these schools are representative, then these figures suggest that some 89% of year 3 Zambian pupils cannot adequately comprehend the English texts judged to be at their level, some 88% of year 4 cannot do so, and some 74% of year 5. If they cannot comprehend their English course books it is likely that they cannot understand their content subject course books, for not only is there a gap between what pupils know, and what is in their English course books, there is also a language gap between the English course books and the content subject course books. Similar problems are reported from South African primary schools (McDonald, 1990, cited in Chick, 1992: 33) where the amount of English in the curriculum up to and including year 2 is inadequate for the sudden transition to English medium at year 3.

Given this low general level of English reading proficiency on tests tied to their English course books, it is difficult to see how the majority of pupils in Zambia and Malawi could learn other subjects successfully through reading in English. This is supported by a Zambian Ministry of Education report (Focus on Learning, 1993: para 5.4) which claims that *Too early an emphasis on learning through English means that the majority of children form hazy and indistinct concepts in language, mathematics, science and social studies. A number of studies in Zambia have confirmed that children's subsequent learning has been impaired by this policy.* Previous research in Zambia has come up with similar conclusions. Chikalanga (1990: 69) reporting a 1973 study in Kitwe Teachers' College, which tested 583 grade 5 children, concluded that *there is a large group of very poor readers in most classes and they are unlikely to be able to cope with the English course of the New Zambia Primary Course nor be able to do much of the work in other subjects* (my underlining).

Apart from weaknesses in the English of pupils, classroom observation and discussions suggest there are also weaknesses in the English of some teachers. This weakness probably contributes to the excessively text-bound nature of the English reading lessons, and of content lessons. Typically the latter are taught in much the same way as an English reading lesson - the text is read, then questions are asked which simply require the pupil to repeat sentences from the text. Such "safe" language does not serve the cause of conceptual clarification. I have observed lessons in Malawi dealing with the human heart and the structure of flowers, where "auricles" "ventricles" "stamens" and "pistils" were read and copied, but where there was no reference to "real life" or discussion of the issues: it is certain most pupils did not have a clear concept of what these words referred to. For the majority of children in both countries the test results, and classroom observations, suggest there is a clear risk that the policy of using English as a vehicular language may contribute to stunting, rather than promoting, academic and cognitive growth.
The argument that instead of learning English for content subjects, pupils could learn English through content subjects, does not in my view offer the prospect of an immediate and general improvement. Learning English through content has theoretical appeal, but would require more careful integration of the content courses with the English courses than seems to be the case currently. Moreover, it would also require more sensitive presentation by teachers of language and concepts relating to content, than would appear to be possible in current circumstances. It may succeed in particular individual instances, but is unlikely to be effective on a national scale.

8.5 Possibilities for improvement in education and reading

8.5.1 Improving English reading

8.5.2 Rethinking the role of English?

8.5.1 Improving English reading

Although present levels of English reading in Malawi and both English and Zambian language reading in Zambia are far from satisfactory, this is not to be blamed entirely on official policies or inappropriate pedagogy, but also on the context in which education is taking place: many schools are dilapidated, there is a shortage of books, and teachers have low morale. The common cause of these problems is the weak economy, which also causes much pupil absence through ill-health or work. If we accept that there will be no immediate economic upturn in these countries, we must also accept that any suggestions for improvements within existing parameters will tend to be limited in their effects.

Any suggestions for improvements should ideally be delivered by a teaching force whose morale is sufficiently high for them to embark on innovative approaches with commitment, whose language competence is adequate, and who have some basic insights into the processes of reading and second language learning. There is a clear danger that simply "unloading" materials and methods from the UK, or anywhere else, onto a teaching force that has neither the willingness nor the pedagogic capacity to implement them will fail. This is particularly important in view of the fact that some British educationists (e.g. Harwood, 1995), are themselves now re-evaluating the efficacy of some of the central practices of UK state primary education, such as group work. Before decisions on new approaches are made in Malawi or Zambia, careful analysis of the teacher resource potential is needed, as well as analysis of the effects on pupils' achievement, through robustly evaluated trialling.
At the moment many teachers in countries such as Zambia and Malawi need to be made more familiar with issues in reading in a second language. If this is to take place, even to a limited extent, then it is important for the countries to possess a cadre of reading specialists to provide pre-service and in-service training. Ideally these specialists should be familiar not only with the conventional range of reading topics in first and second language (methods of initial reading, techniques in intensive reading, etc.) but also and crucially, have first hand familiarity with teaching reading in the local schools, and an understanding of the application of reading theory to local conditions.

Education ministries and the schools also need to be aware of the roles of English and local languages in learning across the curriculum, particularly as concerns the language differences between English course books and content course books in English. The linguistic demands of transitions that occur across years when the medium of instruction changes (as in Malawi) needs particular attention.

As far as classroom approaches are concerned, countries which use English (or any other "major") language as a second language medium of instruction within their primary education system, need to be aware that if pupils are to learn efficiently from reading in English, then specific attention should be given to a comprehensive English reading programme (not simply an English language programme) integrated into an English language and skills development syllabus. The following components would be widely agreed to contribute to an effective programme of reading in English as a second language:

(i) an English language component: this is usually provided by the course book and should attend to meanings and not only to form and pronunciation.

(ii) learning how to read and write in English: again this is usually provided by the course book, and will consist either of an initial reading programme in English for those who have not been taught to read in a local language or of a beginning English reading programme for those who have been taught to read in a local language.

(iii) intensive reading for practising reading comprehension and improving language proficiency, especially as regards vocabulary expansion: this too is usually provided by the course book in the form of short passages. Typically the language will be slightly above the level of the pupils, and the gap will "bridged" by the teacher.

(iv) listening to stories read aloud by the teacher. The purpose of this is to introduce the notion of deriving pleasure from books. The language
would normally be at or slightly below the level of the pupils.

(v) group reading where classes of children read the same books at the same time under the teacher's guidance. The purpose of this is to help children develop strategies for individual reading.

(vi) a self-access supplementary reading programme, where pupils choose their own books and are in charge of their own reading. The purpose of this is to enhance existing reading capacity and encourage interest in reading; the language of most books should be slightly below the level of most pupils, so that they may be able to read the books independently.

Currently many countries focus exclusively on the first three components, often justifying this by claiming that syllabus demands do not allow any other activities. However, in terms of generating a positive attitude towards reading, there are advantages in a planned introduction of the last three components, and particularly the last, for once pupils have learned "how to read" they can only develop the skill by reading. Good readers read a lot, and pupils therefore need to be given the opportunity to read. Careful integration and staging of all the components is important, and there is clearly a significant role for writing, which this monograph has been unable to give space to.

8.5.2 Rethinking the role of English?

Given the weak results of the current dominance of English in primary education in Malawi and Zambia, it is certainly worth considering the advantages of teaching initial literacy in the child's mother tongue, or at least a local language known to the child. (This is, after all, what most countries in the world do, unless there are compelling reasons to the contrary.)

Among the reasons for promoting initial literacy in a local language are:

- if the example of Malawi is representative, local language literacy seems to be more successfully taught than English literacy.

- local language literacy may provide support for subsequent English literacy: at the very least, it would have the logical advantage of children moving from the known (their language) to the unknown (reading), rather than confronting two unknowns (the English language and reading) simultaneously.
• local language literacy is much more in harmony with the current "child-centred" policy in education

Furthermore, as this research shows for these two countries, it is not the case that competence in one language is gained at the expense of competence in another. If that were so, the Zambian children should have scored much more highly than their Malawian counterparts in English. There are also reasons of language status and prestige, which we will not go into at this point, but which are nonetheless of importance.

A more radical suggestion than simply encouraging initial literacy in a local language, would be for the local language to be used as the sole medium of instruction throughout primary schooling, with English taught, but only as a subject, from year 3 onwards. This would allow literacy skills to be established in the local language, and would also help more children to understand what is going on in the classroom. It would also acknowledge officially, what is accepted in private, namely that a great deal of the medium of instruction is in fact the local language - as one primary pupil in rural South Africa put it, they had "no problem learning in English, because the teacher says it in Xhosa." Many classrooms currently practice a type of linguistic schizophrenia, with reading and writing being done in English, while speaking is in the local language.

It might be objected that the above suggestion would lead to tremendous difficulties in secondary schools, which operate entirely through the medium of English. If that is the case, then one solution would be to have a year of intensive English at the beginning of secondary school for those that need it (bearing in mind that all pupils would have learned some English as a subject in primary school). This solution would have the advantage of only being targeted at those who had already passed the secondary school entrance examination, thus obviating the need for years of incomprehension on the part of many of the pupils who are currently subjected to English medium. There might well be some practical problems, but the current situation is sufficiently worrying for radical changes to be at least considered. There might also be some people who would object that children would learn less at primary school, if they did not learn in English: however, the reality for most pupils is that the English language, far from being a bridge to knowledge, is in fact a barrier.

8.6 Conclusion

Many children in developing countries such as Malawi and Zambia, appear to be the innocent victims of their governments' opting for English in order to modernise and unify the country. In terms of modernisation, it was thought that English, the language of the global village, would enhance commercial development through facilitating international contacts. In terms of unification a 'one nation' approach was often
favoured, with the use of English emphasised in public domains, and given a privileged position in education.

However, using English in education to bring about unity and modernisation has not been an unqualified success. While English may have succeeded in preventing conflict in the educational arena between competing language groups, it has created division between, on the one hand, those groups who have access to English, typically members of the reasonably well-off urban classes, and, on the other hand, those groups who do not, typically the members of poor rural classes. English in education is thus a source of disunity - a point supported in Malawi by the large differences between rural and urban English scores, and the small differences between the rural and urban Chichewa scores.

As far as modernisation is concerned many of the gains in wealth have been local, and again largely confined to an urban elite. If modernisation has as one of its aims a nation that is educated - which implies a nation that can read - then the use of English in primary schools is a double-edged sword: it is indeed educating a minority of individual pupils who move on towards the coveted white-collar jobs. On the other hand the majority who fail to acquire adequate skills in English continue with an English-medium education in a miasma of incomprehension: in the absence of comprehension there can be little development of academic concepts or skills, and there is a real danger that the school experience may be a stultifying, rather than an enlightening one.

Now that countries such as Malawi and Zambia are moving into more flexible democratic regimes, language education problems such as those indicated by the present research have become more salient. The solutions will require informed and sympathetic local negotiation; they will also need to take account of broad educational aims, of evolving literacy practices within society, and of the political aim of equalizing opportunities. Because of conflicting social and economic pressures, and a teaching base which has many weaknesses, solutions to language education problems within the government education systems are likely to be partial and slow. Education for all, and reading fluency for all, remain a distant goal in many countries: if they are to progress towards this distant goal, then educational policy makers need first to examine and adjust to the sociolinguistic and classroom realities of today.

[Previous Page] [Table of Contents] [Next Page]

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Appendix A - Approaches to teaching initial reading

The following is a brief characterisation of some of the main approaches to the teaching of initial reading. In practice most teachers employ an eclectic approach, and also attempt to promote a positive attitude to reading through activities not mentioned here, for example by reading stories aloud. It should also be born in mind that many U.K. teachers and reading specialists now believe that pre-reading phonological awareness is a causal factor in learning to read. In crude terms this means that initial readers are helped if they already have an appreciation of the fact that words are made of different sounds. Such appreciation is probably fostered by rhymes, songs and word play through minimal pairs (e.g. shells, bells) or contrastive addition (e.g. row/grow) which alert learners to the phonemic system. Thus, irrespective of the language concerned or the eventual reading instruction approach, the development of initial reading skill is partly a function of pre-reading experiences, which is not directly connected with written language. (see for example, Bryant and Bradley 1985; Goswami and Bryant, 1991).

Phonic

This method proceeds from the conventionalised "sound values" of letters - the letter c being given the value "kuh", for example, and the word "cot" being analysed to "kuh" "oh" "tuh" and then synthesised to "cot". The main advantage of this approach is that it enables learners to "build up" by sounding out, and hopefully recognising, words that they have not met previously in printed form. It is sometimes referred to as the "phonetic" method, although phonetic symbols are not used with the learners.

One obvious disadvantage of the method is the lack of consistent letter-sound relationships in English spelling. Another disadvantage is that there is often a difference between the pronunciation of letters in isolation and the sounds represented by the same letters in a word. Thus in the previous example, neither "c" nor "t" are pronounced in the same way in isolation as they are in the word "cot". In order to identify the word, English speakers will be helped by already knowing the word "cot". Clues gained from the "sounding out" of "kuh" "oh" "tuh" provides learners with sufficient information to enable them to identify the written word with the item "cot". Clearly if the reader does not know the
word, arriving at an appropriate synthesis of the "sounded out" letters will be difficult.

**Onset and Rime.**

This is arguably a technique rather than an approach, deriving from the phonological awareness principle (see above). It is based on the view that syllables can be broken down into onsets and rimes, the rime being the part that allows the word to rhyme with others, and the onset being the initial consonants. Thus in *dog* the onset is *d-* and the rime is *-og*. The rime is also found in words like *jog* and *frog*, where the onsets are *j-* and *fr-* respectively. It is believed that the manipulations of onsets and rimes in written word games and activities, help children to recognise and develop analogies. It may be regarded as the equivalent for English of the syllabic approach.

**Syllabic**

The syllabic approach is widely known in Malawi and Zambia, but seems to be used exclusively to teach reading in African languages. It is based on "consonant-vowel" sequences e.g. *ba, be, bi, bo, bu; ka, ke, ki, ko, ku*, etc. From these, teachers prepare written "syllable charts", as in the following example (from Ms Bernadette Zulu, Kabwata Open School, Lusaka):

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<td>ka</td>
<td>ke</td>
<td>ki</td>
<td>ko</td>
<td>ku</td>
</tr>
</tbody>
</table>

The chart provides the basis for various activities, particularly making up different words from the chart (e.g. *kalulu*, hare; *sukulu*, school; *amai*, mother). Such word play activity appears to be very popular with learners, and alerts them to the fact that words are composed of sounds, and sounds are (albeit not always in a perfect one-to-one relationship) represented by letters.

This syllabic approach is well suited to Chichewa/Nyanja, since many of their words, in common with other languages of the Bantu family have a consonant-vowel phonological structure e.g. *ka+lu+lu = kalulu* (hare); *ma+lu+ba = maluba* (flowers). (There are digraphs such as *mb* or *ns* but these represent single consonant sounds.) The syllabic method does not of course lend itself to English, but the "onset and rime" approach is analogous.
Whole Word and Whole Sentence

This is also referred to as the "look-and-say" method. Here, learners are presented with the written versions of whole words, phrases or sentences, which are read aloud by the teacher, often through the use of flash cards or words written on the blackboard. Pupils are expected to memorise them through repetition, and recognise them as wholes. The claimed advantage of this is that it facilitates rapid recognition of whole units, rather than depending on a laborious letter-by-letter strategy, and as such, that it approximates more closely to the fluent reading of a proficient reader. The disadvantage is that it does not help learners to work out for themselves words that they have not already met in print.

A further point to note is that for native speaker readers attention to meaning will not normally be crucial, or even necessary, since such learners will by definition understand what they are repeating. In a second/foreign language situation however, there is a clear danger that learners will simply repeat without understanding.

Language Experience

This is an integrated approach to both reading and writing which exists in different versions, of which the best known is *Breakthrough to Literacy* (Mackay et al, 1979). The latter has been adapted by the South African based Molteno organisation for indigenous languages in various southern African countries. A typical classroom procedure is first that the learner decides what to write - usually a single sentence. This is then constructed out of words already printed on cards, or provided by the teacher. The child then reads the sentence - facilitated, of course, by the fact that the child created the sentence in the first place. The child then copies the sentence into an exercise book, and is again able to read it by itself. Both the phonic and whole word methods may be incorporated into this approach.

The advantage of this method is that the child will immediately be able to attribute meaning to what he or she says. The disadvantage is that the approach may be cumbersome to use with a large class, although it can be adapted to such situations. The method assumes the child knows enough language to be able to express itself, as would normally be the case with native speakers for whom the approach was developed.
Appendix B - Transcript of two lessons

Transcript 1: Malawi, Rural School, Year 2
Number in class: 128

T: Now it's time for English. Class, who can remember to read this word?... Yes?
P: Any
T: Any. Very good. Clap hands for him. (Clapping)
T: What about this word. What does it say?
P: Tins.
T: Very good. Clap hands for... her (Clapping) and everybody say "tins".
Class: Tins.
T: Tins.
Class: Tins.
T: Who can read this word?... Yes?
P: Bottle.
Class: Bottles.
T: Again.
Class: Bottles.
T: What does this say? Yes, Dansani?
D: Matches.
T: Matches. Very good. Clap hands for him. (Clapping)
T: Everybody, say after Dansani.
Class: Matches.
T: Again.
Class: Matches.
T: Now look here. Look on page 46. Everybody can see it? (repeat in Chichewa)
Class: (Yes: in Chichewa)
T: (Right: in Chichewa). Now, what can you see? What can you see? Yes, Kenneth?
K: I can see Timve.
T: You can see Timve. Yes. Noah, where is Timve? Where is Timve? Yes, Makanso?
M: (inaudible)
T: No, no. Yes, you.
P: Timve is wearing a shirt and shoes.
T: I said, I said, where is Timve? (Where is Timve? in Chichewa?) Where is Timve? Yes?
P: Timve is in the store.
T: Yes, Timve is in the store. Clap hands for her. (Clapping)
P: Now everybody say after her.
Class: Timve is in the store.
T: Again.
Class: Timve is in the store.
T: Now, who is that man? Who is this man? He's a.. He's... finish it...Yes?
P: That is a storekeeper.
T: Yes. That is a store keeper. Very good. Now this is a storekeeper. Now, what is his name? What is his name? Yes?
P: (indistinct)
T: Speak loudly.
P: (indistinct)
T: Speak loudly.
P: Can you hear her?
Class: His name is...
T: (In Chichewa: Did you hear what she said?)
Class: (Chichewa: Yes)
T: Say it loudly. Yes, speak it loudly. (Chichewa: Say it loudly)
P: His name is Mr Gondwe.
T: Very good. Say after him.
Class: His name is Mr Gondwe.
T: Now here I have written some words. Now the first words reads. "Buying, buying, buying. No, no no. Buying buying. No. Now class, read after me "Buying".
Class: Buying.
T: Again.
Class: Buying.
T: Again.
Class: Buying.
T: Now Botolan read it.
B: Buying.
T: Stand up and read it.
B: Buying.
T: Very good. You stand up. Read it.
P: Buying.
T: Everybody read it.
Class: Buying.
T: Here. Read after me. No.
Class: No.
T: No.
Class No
T: No.
Class: No.
T: Now, who can read it. Kanyada?
P: No.
T: Speak loudly.
P: No.
T: Yes, (inaudible)
E: No.
T: No. Very good. (Writes) What does it say? Yes?
P: No.
T: Very good. Clap hands for him. (Clapping) Yes. Juvis?
J: Buying.
T: Buying. Yes. Very good. Now you listen, I am going to read (Chichewa: I am going to read) "Timve and Tsala are inside the store. They are buying things for mother. Are they buying matches? No, they are not. They are not buying matches. Are they buying bottles? No, they are not. They are not buying bottles. They are buying sugar. They are buying tea. They are buying sugar and tea. They are buying things for mother."
Now class, read after me.
T: Timve and Tsala are inside the store.
Class: Timve and Tsala are inside the store.
(Class continue repeating text after the teacher, as far as: "They are buying things for mother.")
Now I would like boys to read after me. Girls, keep quiet. "Timve and Tsala are inside the store."
(Boys repeat the text after the teacher.)
Now I would like that line at the back. Stand up. Quickly. Now read after me. And that one. (Chichewa: That one) Mmhmm.
Line: Timve and Tsala are inside the store.
T: No. Timve and Tsala are inside the store.
Line: Timve and Tsala are inside the store.
(The line read the whole text after the teacher.)
Good, sit down. Now, everybody read. I would like you to read alone (inaudible). Start.
Class: Timve -
T: Everybody, girls and boys. Start reading.
(Class read the text, as far as "Are they buying bottles?")

T: Listen, "Are they buying bottles?"
C: Are they buying bottles?
T: Are they buying bottles?
C: Are they buying bottles?

(Class continue to end)

T: Children, now who can read for me? Yes, Konda.
K: Timve and Tsala are inside the store.
They are buying things
T: Things.
K: Things.
T: Things.
K: Things. (Continues text to "They are buying matches.")
T: Very good. Clap hands for... him. (Clapping)
Now girls. Yes. Start from here.
G: Are they buying bottles. No they are not. They are not buying bottles.
T: Very good. Clap hands for her. (Clapping)
T: Next. Yes.
P: They are buying sugar. They are buying tea. They are buying sugar and tea. They are buying things for mother.
T: Very good. Clap hands for him. (Clapping)
T: Now. Questions. What is Timve and Tsala buying? What is Timve and Tsala buying? Yes?
P: Timve and Tsala are inside the store.
T: Wrong, no. What are they buying? Or let me ask you this way. What are they buying? What are they buying? Yes?
P: They are buying some tea and sugar.
T: They are buying sugar and tea. Say it again.
P: They are buying sugar and tea.
T: Very good. Say it again.
T: Now, say after him. They are buying sugar and tea. Say it.
Class: They are buying sugar and tea.
T: Now, are they buying bottles? Are they buying bottles. Yes?
P: No, they are not.
T: Very good. Clap hands for her. (Clapping)
T: Are they buying matches? Are they buying matches? Yes?
P: No they are not.
T: Very good. Clap hands for her. (Clapping)
T: Now, who can come and write the word "buying"? Who can come and write the
word on the chalk board. Violet. Yes, you? Take a piece of chalk.
P: (Writes)
T: Is he correct?
Class: No.
T: Now, who can come and correct it? Who can come and correct it? Yes? Come in. Yes, come in front. You. Write "buying". Is she correct?
Class: Yes.
T: Clap hands for her. (Clapping)
T: Now, who can come and write "No, no, no". Yes, Danfreda. Write "No". Is he correct?
Class: Yes.
T: Clap hands for him. (Clapping)

END OF LESSON

Transcript 2: Zambia, Rural School, Year 3.
Number in class: 45

T: English reading. We are going to read the story that is Chuma and the Rhino. That is paragraph 3 and 4, which has been written on the board. Who can read the first sentence in paragraph 3? Yes?
P: Look at that hippo's mouth father
T: Read aloud.
P: Look at that hippo's mouth father.
T: Once more.
P: Look at that hippo's mouth father.
T: Yes. The sentence is "Look at that hippo's mouth father".
Class: Look at that hippo's mouth father.
T: Look at that hippo's mouth father.
Class: Look at that hippo's mouth father.
T: Yes. (Points) What is that sentence? Who can read the next sentence? Simon?
P: It is very big isn't... isn't it, said Chuma.
T: Again.
P: It is very big isn't it, said Chuma.
T: Thank you. The sentence is: It is very big isn't it, said Chuma. Read.
Class: It is very big isn't it, said Chuma.
T: It is very big isn't it, said Chuma.
Class: It is very big isn't it, said Chuma.
T: Big.
Class: Big.
T: Big.
Class: Big.
T: It is very big isn't it, said Chuma.
Class: It is very big isn't it, said Chuma.
T: OK. (Pause) Who can read the next sentence? Navis?
P: Now, hippos have very -
T: Is this word "now"?
P: Now -
T: No, no, no, no...
P: Yes, hippo have very big... Yes, hippos have very big mouths, said his mother.
T: Thank you. Uh, what's that word?
P: Father.
T: OK. Yes, hippos have very big mouths said his father. Read.
Class: Yes, hippos have very big mouths, said his father.
T: Yes, hippos have very big mouths, said his father.
Class: Yes, hippos have very big mouths said his father.
T: Say mouths.
Class: Mouths.
T: Don't say "mouths", say "mouths".
P: Mouths.
T: Yes, hippos have very big mouths, said his father.
Class: Yes, hippos have very big mouths, said his father.
T: The next sentence. Musa.
M: Crocodiles have very big mouths too.
T: Again.
M: Crocodiles have very big mouth too.
T: Mmm. Who can - who can help him??
F: Crocodiles have very big mouths too.
T: Thank you. Crocodiles have very big mouths too. Read. Crocodiles have very big mouths too.
Class: Crocodiles have very big mouths too.
T: Crocodiles.
Class: Crocodiles.
T: Crocodiles.
Class: Crocodiles.
T: Crocodiles have very big mouths too.
Class: Crocodiles have very big mouths too.
T: OK. Paragraph four. The first sentence.
P: Chuma and his father walked away from the river.
T: Again.
P: Chuma and his father walked away from the river.
T: Yes, that is the sentence. Chuma and his father walked away from the river. Read.
Class: Chuma and his father walked away from the river.
T: Walked.
Class: Walked.
T: Walked.
Chuma and his father walked away from the river.

They walked away from the crocodiles.

They walked away from the hippos.

Now they were walking between the trees.

Chuma liked to walk between the trees.
Chuma liked to walk between the trees.

They walked slowly and quietly between the trees.

They were walking slowly and quietly when they saw a very big rhino.

The rhino was near a tree and he was eating grass.

Hippo's mouth father. It is very big, it isn't it?
P: (Whispers) Yes
P: Yes, hippos... hippos have very big mouth... mouths said his father. Crocodiles have very big mouths too.
T: OK, that's alright. It's alright. Let's see, yes, Samuel.
S: Look at that hippo's mouth, Father. It is very big... it... it is very big isn't it, said Chuma. Yes... yes... hippos very big...
T: Have
P: Yes hippos very very big mouth said his father. Yes hippos very...
T: Have very big mouths.
P: Yes, hippos have very big mouths, said his father. Crocodiles, crocodiles have very big mouths too.
T: Thank you. OK. Look at that hippo's mouth father. It is very big isn't it? said Chuma. Yes, hippos have very big mouths, said his father. Crocodiles have very big mouths too. Together read that paragraph.
Class: Look at that hippo's mouth father. It is very big isn't it? said Chuma. Yes, hippos have very big mouths, said his father. Crocodiles have very big mouths too.
T: OK. The fourth paragraph. You.
P: Chuma and his father walked away from the river. They walked away from the crocodiles. They walked away from the hippos. Now they were walking between the trees. Chuma liked to walk between the trees.
Y: OK that's very nice. Another one? (Inaudible) Musa.
P: Chuma and his father walked away from the river. They walked away.
T: They walked.
P: They walked away from the river, and they walked away from the crocodiles. They walked away from the hippos. Now they were walking between the trees. Chuma liked to walk between the trees.
T: Thank you. Chuma and his father walked away from the river. They walked away from the crocodiles. They walked away from the hippos. Now they were walking between the trees. Read the sentences.
Class: Chuma and his father walked away from the river. They walked away from the crocodiles.
T: They walked away from the crocodiles.
Class: They walked away from the crocodiles. They walked away from the hippos.
T: They walked away from the hippos.
Class: They walked away from the hippos.
T: You mustn't say "walked", "walked". Say "walked".
Class: Walked.
T: Walked.
Class: Walked.
T: They walked away from the hippos.
Class: They walked away from the hippos.
T: The next sentence.
Class: Now they were walking between the trees.
T: Thank you. The next sentences. (writes) Try.
P: They walked slowly and quietly between the trees.
T: (In Nyanja: Read) Read.
P: They...
T: They walked slowly.
P: They walked slowly between the trees.
T: Come in. Come in.
P:... the trees.
T: Sit down. Sit down. Sit down. Sit down. Sit down. Yes, (Inaudible)
P: (Inaudible) They walked slowly and quietly between the trees. They were walking slowly and quietly when they saw a very big rhino. The rhino was near a tree and he was eating grass.
T: OK. Thank you. Now... They were... Sorry. They walked slowly and quietly between the trees. They were walking slowly and quietly between the trees. They were walking slowly and quietly when they saw a very big rhino. The rhino was near a tree and he was eating grass. Read the sentences.
Class: They walked slowly and quietly between the trees. They walked slowly and quietly between the trees. They were walking slowly and quietly when they saw a very big rhino. The rhino was near a tree and he was eating grass.
T: OK.

END OF LESSON
Appendix C - Texts for two lessons

Text 1.

Text for Transcript 1, Appendix B. This extract from *English in Malawi, Pupil's Book 2* (p. 46) was written on the board during the lesson. The teacher had a book, and about a quarter of the 128 children had access to a book, which contained an illustration of two children and a storekeeper in a store.

*Timve and Tsala are inside the store.*  
*They are buying things for mother.*

*Are they buying matches?*  
*No, they are not.*  
*They are not buying matches.*

*Are they buying bottles?*  
*No, they are not.*  
*They are not buying bottles.*

*Are they buying tins?*  
*No, they are not.*  
*They are not buying tins.*

*They are buying sugar.*  
*They are buying tea.*  
*They are buying sugar and tea.*  
*They are buying things for mother.*

Text 2

Text for Transcript 2, Appendix B. This extract from *Zambia Primary Course, Reader 3* was copied on to the board immediately before the lesson. None of the 45 pupils had...
"Look at that hippo's mouth, Father. It is very big isn't it?" said Chuma.
"Yes, hippos have very big mouths," said his father. "Crocodiles have very big mouths too."

Chuma and his father walked away from the river. They walked away from the crocodiles. They walked away from the hippos. Now they were walking between the trees. They walked slowly and quietly between the trees. They were walking slowly and quietly when they saw a very big rhino. The rhino was near a tree and he was eating grass.
Appendix D - Extracts from English "word find" reading test, 1992

From subtest 1: Mseka's Father

Mseka's father has three cows and ______ goats. The ______ cows are black and ________. The ______ are brown. They ________ grass and drink ________ from the river. On Saturday when Msela doesn't ________ to school, he looks after them.

From Subtest 3: In the Cave

Simon and his sister Maria decided to ________ a cave in a ________ near their town. They took some oranges, a candle and a box of matches and ________ early
the next morning. At midday, they _____________ at the cave, and went in.
Appendix E - Extracts from Chichewa and Nyanja reading tests 1992

(Extract from Chichewa Test) Muno ndi njinga

| sitolo | akupita | wakwerera | imodzi | kukagula | akuwerenga |

Muno __________ njinga mumseu. Akupita __________ shuga ku __________. Pa nyumba __________ ya pafupi ndi mseu pali gali wamkulu.

(Extract from Nyanja Test) Mabvuto ndi njinga yace

| iye | imodzi | munjira | kukuwa | suga | kuyenda |

Mabvuto akuyendatsa njinga yace __________. Ali _______ ku sitoro kukagula ______. Pali galu pabwalo mwa __________ ya nyumbazo.
Appendix F - Extracts from English reading test, 1994

Extract 1: Ruth and her brother

Ruth Phiri lives with her mother and father and her little brother, Moses. Ruth is eight years ____________, and she goes to school. Moses _________ three years old. He doesn't _________ to school. He stays at ______________ with his mother.

Extract 2: Kalulu goes Fishing

One morning Kalulu went fishing in the river. He caught a lot of __________, then made a fire and __________ the fish. While he was __________ the fish, Leopard saw him, __________ Kalulu didn't see Leopard.
Appendix G - Extracts from Chichewa and Nyanja tests, 1994

1. Extract from Chichewa (Malawi) Test

Atate ake a Mumbi

nyemba
amawathandiza
pafupi
amadzuka
onse
njinga


2. Extract from Nyanja (Zambia) Tests

Atate ace a Mumbi

nyemba
amawathandiza
pafupi
amauka
onse
njinga

Appendix H - Histograms of 1994 test results

Malawi:

All children, English, Chichewa, Nyanja
English by location
English by sex
Chichewa by location
Chichewa by sex

Zambia

All children, English, Nyanja
English by location
English by sex
Nyanja by location
Nyanja by sex

Malawi - Distribution of test scores - all children
Malawi - Test score by sex

Boys

Girls
Malawi - Test scores by location

Malawi - Test scores by location

Malawi - Test scores by location
Malawi - Test score by sex

Rural
Zambia - Distribution of test scores - all children

Urban

Boys
Zambia - Test scores by location

Rural
Zambia - Test score by sex

Bays

Girls

No. children
Nyanja test score
Zambia - Test score by sex

Rural
Appendix I - Text for Chichewa/Nyanja individual reading

*Mfumu Mitulo atacoka pamudzi paja nyakwawa Kameta ndi anthu ake pamodzi ndi ena ocokera m'midzi yozungulira, anagundika nayo nchito youmba ncherwa zomangira sukulu.*

*Azimai ndiwo amabweretsa madzi ndi udzu wophimba pancherwa, pamene anyamata anali kuthamanga ndi zikombole. Azibambo ndiwo anali m'nkhando kumaponda dothi. Panthawiyi amuna ena anali kudula nkhuni zodzatenthera ncherwa.*

*Ncherwa zittakonzedwa, nyakwawa Kameta anauza Bambo Jamu omwe amadziwa kamangidwe ke nyumba za ncherwa kuti akayambeko kukumba maziko a sukulu.*