



Appendix J - Descriptive statistics for Nyanja reading test V.01

Descriptive statistics for total score in Nyanja (Total number of items: 60)

OBS	YEAR	SCHOOL	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	B	17	4.2353	3.0929	10	3.0	0
2	3	C	G	22	3.5909	2.9384	11	3.0	0
3	3	D	B	6	1.3333	1.9664	5	0.5	0
4	3	D	G	4	0.7500	0.9574	2	0.5	0
5	3	J	B	13	5.5385	7.9332	31	3.0	1

6	3	J	G	22	6.6364	7.3000	37	5.0	1
7	3	K	B	17	1.4706	1.2307	4	2.0	0
8	3	K	G	17	1.5294	1.1246	4	1.0	0
9	3	T	B	14	2.2857	1.9386	5	1.0	0
10	3	T	G	19	1.9474	2.3208	10	1.0	0
11	4	C	B	24	8.5000	4.1494	16	8.0	1
12	4	C	G	13	8.4615	5.1739	19	7.0	2
13	4	D	B	8	13.6250	7.5770	27	13.5	4
14	4	D	G	10	6.7000	6.5328	19	4.0	1
15	4	J	B	17	10.5882	4.7045	22	11.0	2
16	4	J	G	17	10.3529	3.7239	19	10.0	4
17	4	K	B	17	3.8235	3.3022	12	3.0	1
18	4	K	G	8	1.7500	1.9086	5	1.5	0
19	4	T	B	12	4.1667	2.4433	9	4.0	1
20	4	T	G	22	6.1364	2.2740	10	6.0	2

21	6	C	B	12	15.1667	9.6090	32	12.5	4
22	6	C	G	12	24.9167	12.5224	44	25.0	4
23	6	D	B	16	22.2500	10.3183	39	24.0	8
24	6	D	G	20	24.7000	11.0220	42	24.5	4
25	6	J	B	15	15.0000	7.9282	31	14.0	5
26	6	J	G	15	16.2000	8.8091	33	13.0	4
27	6	K	B	18	32.7222	7.2583	46	33.0	18
28	6	K	G	15	28.0000	12.6548	45	29.0	6
29	6	T	B	18	17.1111	15.1420	58	12.0	3
30	6	T	G	12	16.0833	11.1637	43	14.0	5

OBS	YEAR	SCHOOL	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	39	3.8718	2.9840	11	3.0	0
2	3	D	10	1.1000	1.5951	5	0.5	0
3	3	J	35	6.2286	7.4442	37	4.0	1

4	3	K	34	1.5000	1.1612	4	1.0	0
5	3	T	33	2.0909	2.1413	10	1.0	0
6	4	C	37	8.4865	4.4636	19	8.0	1
7	4	D	18	9.7778	7.6662	27	8.0	1
8	4	J	34	10.4706	4.1796	22	10.5	2
9	4	K	25	3.1600	3.0507	12	2.0	0
10	4	T	34	5.4412	2.4887	10	5.0	1
11	6	C	24	20.0417	11.9981	44	19.5	4
12	6	D	36	23.6111	10.6349	42	24.0	4
13	6	J	30	15.6000	8.2571	33	13.5	4
14	6	K	33	30.5758	10.1859	46	33.0	6
15	6	T	30	16.7000	13.4886	58	12.5	3

OBS	YEAR	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	B	67	3.1194	4.2159	31	2.0	0

2	3	G	84	3.4643	4.6295	37	2.0	0
3	4	B	78	7.7949	5.3872	27	7.0	1
4	4	G	70	7.1714	4.6872	19	6.0	0
5	6	B	79	21.0127	12.4061	58	20.0	3
6	6	G	74	22.2838	11.9583	45	20.5	4

OBS	YEAR	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	151	3.3113	4.4395	37	2	0
2	4	148	7.5000	5.0609	27	7	0
3	6	153	21.6275	12.1682	58	20	3

Descriptive statistics for score on items 1-20 in Nyanja

OBS	YEAR	SCHOOL	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	B	17	2.4706	2.00367	6	2.0	0
2	3	C	G	22	2.1364	2.33596	10	1.5	0

3	3	D	B	6	1.3333	1.96638	5	0.5	0
4	3	D	G	4	0.7500	0.95743	2	0.5	0
5	3	J	B	13	4.0769	4.49929	17	3.0	0
6	3	J	G	22	3.4545	3.80134	19	3.0	0
7	3	K	B	17	1.4706	1.23073	4	2.0	0
8	3	K	G	17	1.3294	1.12459	4	1.0	0
9	3	T	B	14	2.2857	1.93862	5	1.0	0
10	3	T	G	19	1.9474	2.32077	10	1.0	0
11	4	C	B	24	5.3833	4.03158	14	4.0	1
12	4	C	G	13	5.0000	4.20317	16	4.0	0
13	4	D	B	8	10.3000	6.36957	17	11.5	0
14	4	D	G	10	6.3000	5.77446	17	4.0	1
15	4	J	B	17	5.7647	3.84918	14	5.0	0
16	4	J	G	17	5.1176	3.25734	11	4.0	1
17	4	K	B	17	3.7059	3.34971	12	3.0	0

18	4	K	G	8	1.6250	1.92261	5	1.0	0
19	4	T	B	12	2.3000	1.31426	4	3.0	0
20	4	T	G	22	3.5000	1.73891	7	3.5	0
21	6	C	B	12	7.5000	3.87298	14	6.5	2
22	6	C	G	12	11.3000	5.38516	17	12.0	1
23	6	D	B	16	11.7500	5.32291	19	13.5	2
24	6	D	G	20	11.0000	4.12948	17	11.0	1
25	6	J	B	15	8.3333	6.25262	17	7.0	1
26	6	J	G	15	8.2667	5.47027	16	8.0	0
27	6	K	B	18	14.2778	2.53923	18	14.0	9
28	6	K	G	15	12.4000	5.31574	17	15.0	2
29	6	T	B	18	9.1111	5.93978	20	8.5	1
30	6	T	G	12	8.1667	5.90583	19	7.5	2

OBS	YEAR	SCHOOL	N	MEAN	SD	MAX	MEDIAN	MIN
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1	3	C	39	2.2821	2.17581	10	2.0	0
2	3	D	10	1.1000	1.59513	5	0.5	0
3	3	J	35	3.6857	4.02033	19	3.0	0
4	3	K	34	1.5000	1.16124	4	1.0	0
5	3	T	33	2.0909	2.14131	10	1.0	0
6	4	C	37	5.3784	4.04387	16	4.0	0
7	4	D	18	8.1667	6.24264	17	6.5	0
8	4	J	34	5.4412	3.52645	14	4.0	0
9	4	K	25	3.0400	3.08869	12	2.0	0
10	4	T	34	3.1471	1.65387	7	3.0	0
11	6	C	24	9.5000	5.02169	17	10.5	1
12	6	D	36	11.3333	4.64143	19	12.5	1
13	6	J	30	8.3000	5.77241	17	7.5	0
14	6	K	33	13.4242	4.08527	18	15.0	2
15	6	T	30	8.7333	5.84237	20	8.0	1

OBS	YEAR	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	B	67	2.3881	2.63402	17	2	0
2	3	G	84	2.2500	2.66560	19	2	0
3	4	B	78	5.2436	4.34304	17	4	0
4	4	G	70	4.3571	3.61172	17	4	0
5	6	B	79	10.4304	5.47883	20	11	1
6	6	G	74	10.3514	5.30038	19	11	0

OBS	YEAR	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	151	2.3113	2.64370	19	2	0
2	4	148	4.8243	4.02495	17	4	0
3	6	153	10.3922	5.37567	20	11	0

Descriptive statistics for score on items 21-40 in Nyanja

OBS	YEAR	SCHOOL	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	B	17	1.0588	1.59963	5	0.0	0
2	3	C	G	22	0.8182	0.90692	3	1.0	0
3	3	D	B	6	0.0000	0.00000	0	0.0	0
4	3	D	G	4	0.0000	0.00000	0	0.0	0
5	3	J	B	13	1.2308	3.32049	12	0.0	0
6	3	J	G	22	1.9545	2.98372	14	1.0	0
7	3	K	B	17	0.0000	0.00000	0	0.0	0
8	3	K	G	17	0.0000	0.00000	0	0.0	0
9	3	T	B	14	0.0000	0.00000	0	0.0	0
10	3	T	G	19	0.0000	0.00000	0	0.0	0
11	4	C	B	24	2.0000	1.47442	5	2.0	0
12	4	C	G	13	1.6923	1.65250	6	1.0	0
13	4	D	B	8	3.1250	4.01559	12	1.5	0
14	4	D	G	10	0.4000	0.84327	2	0.0	0

15	4	J	B	17	2.8824	1.93269	6	3.0	0
16	4	J	G	17	2.6471	1.86886	8	2.0	0
17	4	K	B	17	0.0588	0.24254	1	0.0	0
18	4	K	G	8	0.1250	0.35355	1	0.0	0
19	4	T	B	12	1.0000	1.20605	3	0.5	0
20	4	T	G	22	1.3636	1.25529	3	1.0	0
21	6	C	B	12	3.7500	3.51943	9	3.0	0
22	6	C	G	12	7.5833	5.03548	15	6.5	1
23	6	D	B	16	8.8750	4.63141	16	9.0	2
24	6	D	G	20	9.2500	4.32709	16	10.0	2
25	6	J	B	15	3.8000	3.44757	13	4.0	0
26	6	J	G	15	4.9333	3.61478	12	4.0	0
27	6	K	B	18	11.6667	4.00000	17	10.5	3
28	6	K	G	15	9.5333	5.66779	19	11.0	1
29	6	T	B	18	4.8889	5.96942	20	3.0	0

30	6	T	G	12	5.5833	5.05350	19	4.0	0
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OBS	YEAR	SCHOOL	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	39	0.9231	1.24361	5	0.0	0
2	3	D	10	0.0000	0.00000	0	0.0	0
3	3	J	35	1.6857	3.08480	14	1.0	0
4	3	K	34	0.0000	0.00000	0	0.0	0
5	3	T	33	0.0000	0.00000	0	0.0	0
6	4	C	37	1.8919	1.52359	6	2.0	0
7	4	D	18	1.6111	2.99291	12	0.0	0
8	4	J	34	2.7647	1.87582	8	3.0	0
9	4	K	25	0.0800	0.27689	1	0.0	0
10	4	T	34	1.2353	1.23236	3	1.0	0
11	6	C	24	5.6667	4.67804	15	5.0	0
12	6	D	36	9.0833	4.40373	16	9.5	2

13	6	J	30	4.3667	3.51826	13	4.0	0
14	6	K	33	10.6970	4.87009	19	11.0	1
15	6	T	30	5.1667	5.54034	20	3.0	0

OBS	YEAR	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	B	67	0.50746	1.71776	12	0	0
2	3	G	84	0.72619	1.76547	14	0	0
3	4	B	78	1.73077	2.08067	12	1	0
4	4	G	70	1.45714	1.61232	8	1	0
5	6	B	79	6.86076	5.44138	20	5	0
6	6	G	74	7.56757	4.98513	19	7	0

OBS	YEAR	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	151	0.62914	1.74209	14	0	0
2	4	148	1.60135	1.87261	12	1	0

3	6	153	7.20261	5.22061	20	6	0
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Descriptive statistics for score on items 41-60 in Nyanja

OBS	YEAR	SCHOOL	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	B	17	0.70588	0.98518	3	0.0	0
2	3	C	G	22	0.63636	0.95346	3	0.0	0
3	3	D	B	6	0.00000	0.00000	0	0.0	0
4	3	D	G	4	0.00000	0.00000	0	0.0	0
5	3	J	B	13	0.23077	0.59914	2	0.0	0
6	3	J	G	22	1.22727	1.37778	4	1.0	0
7	3	K	B	17	0.00000	0.00000	0	0.0	0
8	3	K	G	17	0.00000	0.00000	0	0.0	0
9	3	T	B	14	0.00000	0.00000	0	0.0	0
10	3	T	G	19	0.00000	0.00000	0	0.0	0
11	4	C	R	24	0.91667	1.34864	4	0.0	0

11	T	C	B	27	0.91007	1.97007	7	0.0	0
12	4	C	G	13	1.76923	2.16617	6	1.0	0
13	4	D	B	8	0.00000	0.00000	0	0.0	0
14	4	D	G	10	0.00000	0.00000	0	0.0	0
15	4	J	B	17	1.94118	1.29762	4	2.0	0
16	4	J	G	17	2.58824	2.739.95	8	2.0	0
17	4	K	B	17	0.05882	0.24254	1	0.0	0
18	4	K	G	8	0.00000	0.00000	0	0.0	0
19	4	T	B	12	0.66667	1.37069	4	0.0	0
20	4	T	G	22	1.27273	1.60896	5	0.5	0
21	6	C	B	12	3.91667	3.75278	12	4.0	0
22	6	C	G	12	5.83333	3.80988	14	6.0	0
23	6	D	B	16	1.62500	2.47319	9	0.0	0
24	6	D	G	20	4.45000	4.26090	14	4.0	0
25	6	J	B	15	2.86667	2.41622	9	3.0	0
26	6	J	G	15	3.00000	2.00000	7	3.0	0

27	6	K	B	18	6.77778	3.15400	11	7.0	0
28	6	K	G	15	6.06667	3.41147	11	6.0	0
29	6	T	B	18	3.11111	4.80060	19	1.5	0
30	6	T	G	12	2.33333	2.01509	6	2.5	0

OBS	YEAR	SCHOOL	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	C	39	0.66667	0.95513	3	0.0	0
2	3	D	10	0.00000	0.00000	0	0.0	0
3	3	J	35	0.85714	1.24009	4	0.0	0
4	3	K	34	0.00000	0.00000	0	0.0	0
5	3	T	33	0.00000	0.00000	0	0.0	0
6	4	C	37	1.21622	1.70188	6	0.0	0
7	4	D	18	0.00000	0.00000	0	0.0	0
8	4	J	34	2.26471	2.13639	8	2.0	0
9	4	K	25	0.04000	0.20000	1	0.0	0

10	4	T	34	1.05882	1.53625	5	0.0	0
11	6	C	24	4.87500	3.82569	14	4.5	0
12	6	D	36	3.19444	3.80841	14	2.0	0
13	6	J	30	2.93333	2.18037	9	3.0	0
14	6	K	33	6.45455	3.24125	11	7.0	0
15	6	T	30	2.80000	3.89872	19	2.0	0

OBS	YEAR	SEX	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	B	67	0.22388	0.62331	3	0	0
2	3	G	84	0.48810	0.98781	4	0	0
3	4	B	78	0.82051	1.28673	4	0	0
4	4	G	70	1.35714	2.05741	8	0	0
5	6	B	79	3.72152	3.83284	19	3	0
6	6	G	74	4.36486	3.54066	14	4	0

OBS	YEAR	N	MEAN	SD	MAX	MEDIAN	MIN
1	3	151	0.37086	0.85335	4	0	0
2	4	148	1.07432	1.71068	8	0	0
3	6	153	4.03268	3.69640	19	3	0



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Appendix K - Significance testing of the results of the reading tests

(English (Word Find), and Nyanja V.01)

Introduction

The results (see p. 49) estimate the effects on test score of a number of different factors:- urban or rural school (URBAN), sex of child (SEX) grade (YEAR) and whether Nyanja was the home language of the child (HOMEL). When analysing test scores in English the last of these variables (HOMEL) is inappropriate and is not included in the analysis.

Variable codes

Variable YEAR	Categories 3	Codes
YEAR	3	346
SCHOOL	5	C D J K T
SEX	2	B (boy) G (girl)
URBAN	2	R (rural) U (urban)
HOMEL	2	H (home language) X (other)

The data collected for this study has a hierarchical structure, children within classes within schools, and this complicates the form of the analysis required. Each level in the hierarchy has its own degree of random variation which has to be taken into account e.g. a class may have a particularly good (or bad) teacher with the result that the scores of all the children in the class are better (or worse) than expected. This extra variation is over and above the usual child-to-child variation in scores. When comparing grades, i.e. years 3, 4 and 6, the extra variation should be estimated and taken into account, otherwise the differences between the years will be found to be more significant than they really should be. Similarly at the school level, when comparing urban and rural schools the variation between schools needs to be used. The procedure MIXED in the computer package SAS is designed to deal with this type of data and has been used to produce the analyses.

Three sets of results are provided for each analysis:-

- 1) estimates of variance parameters - these are the estimated values for the random sources of variation described above, child, class and school.

- 2) estimates of fixed effects - these are the estimates of the effects of the factors listed above (year, sex, urban/rural). Since the analysis is concerned with differences due to the different categories of the factors then one category is taken as the baseline (and attributed 0.0000) and the difference between this and all other categories is presented (eg year 6 is attributed 0.0000 compared with year 4 which gets -16.8213, ie nearly 17 points less than Year 6). In addition to the estimated effects an overall test of whether the factor has a significant effect is given.

- 3) least squares means - these are adjusted mean scores for each of the factors examined. Adjustment

is made for all other factors in the analysis. Thus the least squares means for urban and rural schools are the scores to be expected in such schools if each class had the same number of pupils and equal numbers of boys and girls.

Significance Tests: Findings

1. Sex differences

Overall there is little evidence of differing achievement by the two sexes. There were no statistically significant sex differences.

2. Urban/rural differences

The estimated differences in score between urban and rural schools is in most cases large (7.2 points for English) but none of these estimates is

significant. The problem is the relatively small number of schools involved in this study. It is possible that real differences between urban and rural schools do exist but a larger sample of schools (not pupils) would be needed to confirm this.

3. Year differences

Estimated differences between years 3, 4 and 6 are large and strongly significant, indicating a progressive improvement in ability with age for English and Nyanja.

4. Language differences

Nyanja home language pupils doing the Nyanja test do not seem to have a significant advantage. However, the difference is in the expected direction (ie Nyanja home language speakers perform slightly

better overall in the Nyanja test than do non-Nyanja home language children).

English test scores.

Variance Parameter Estimates

Parameter	Ratio	Estimate	Std Error	Z	P
SCHOOL	0.5605	42.3909	37.0318	1.14	0.2523
CLASS	0.0857	6.4888	4.5651	1.42	0.1552
Residual	1.0000	75.6285	5.1214	14.77	0.0000

Estimates for Fixed Effects

Parameter	Estimate	Std Error	DF	T Value	P
INTERCEPT	32.8958	4.9055	436	6.71	0.0000
YEAR 3	-23.4253	1.9230	436	-12.18	0.0000
YEAR 4	16.8212	1.0070	436	16.70	0.0000

YEAR 4	-10.0213	1.9079	436	-0.02	0.0000
YEAR 6	0.0000				
SEX B	-1.2056	0.8300	436	-1.45	0.1471
SEX G	0.0000				
URBAN R	-7.2126	6.1526	436	-1.17	0.2417
URBAN U	0.0000				

Tests of Fixed Effects

Source	NDF	DDF	Type III F	Pr>F
YEAR	2	8	79.39	0.0000
SEX	1	436	2.11	0.1471
URBAN	1	3	1.37	0.3257

Least Squares Means

Level	LSMEAN	Std Error	DF
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YEAR 3	5.2613	3.2759	436
YEAR 4	11.8654	3.2685	436
YEAR 6	28.6867	3.2644	436
SEX B	14.6683	3.1048	436
SEX G	15.8740	3.1031	436
URBAN R	11.6648	3.8970	436
URBAN U	18.8774	4.7608	436

Nyanja test scores

Variance Parameter Estimates

Cov Parm	Ratio	Estimate	Std Error	Z Value	Pr > Z
SCHOOL	0.00000000	0.00000000			
YEAR*	0.29499321	15.58507453	7.42402862	2.10	0.0358

SCHOOL					
Residual	1.00000000	52.83197777	3.58155772	14.75	0.0000

Estimates for Fixed Effects

Parameter	Estimate	Std Error	DF	T Value	P
INTERCEPT	20.0530	2.3507	435	8.53	0.0000
YEAR 3	-18.2916	2.6489	435	-6.91	0.0000
YEAR 4	-13.8498	2.6392	435	-5.25	0.0000
YEAR 6	0.0000				
SEX B	-0.1826	0.6959	435	-0.26	0.7931
SEX G	0.0000				
URBAN R	1.7541	2.2784	435	0.77	0.4418
URBAN U	0.0000				
HOMEL H	0.4222	1.0732	435	0.39	0.6942
HOMFI X	0.0000				

Tests of Fixed Effects

Source	NDF	DDF	Type III F	Pr>F
YEAR	2	8	26.04	0.0003
SEX	1	435	0.07	0.7931
URBAN	1	3	0.59	0.4974
HOMEL	1	435	0.15	0.6942

Least Squares Means

Level	LSMEAN	Std Error	DF
YEAR 3	2.75830942	1.90838830	435
YEAR 4	7.20006093	1.89271955	435
YEAR 6	21.04991977	1.88954775	435
SEX B	10.24478534	1.18049684	435

SEX G	10.42740809	1.17133003	435
URBAN R	11.21316059	1.49854693	435
URBAN U	9.45903283	1.69511988	435
HOMEL H	10.54723965	1.14218611	435
HOMEL X	10.12495377	1.33969706	435



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Appendix L - Reading aloud: assessment results for all schools

Key to abbreviations:

B: boy

G: girl

Pass 1: Passage 1;

Ques 1: Question 1

T: test terminated at this point

na: question not asked

P: passage passed over, as it was judged well
within pupil's capacity

Assessment of Overall Reading of Passages: key to numbers:

2= comprehensible; has read aloud adequately

1= incomprehensible in places; could not read aloud
everything

0= experienced severe problems

Assessment of Answers to Comprehension Questions: key to numbers:

2= clear evidence of comprehension

1= partial evidence of comprehension

0= no evidence of comprehension

It should be recalled that the marking of this test is impressionistic, rather than strictly objective.

Note on "na": questions were not asked if the reader had already provided the response in answer to a previous question, or if the question was judged to be well within the pupil's capacity. In the latter case it was a practical time-saving strategy.

School C (rural)

	Grade 3	Grade 4	Grade 6
--	----------------	----------------	----------------

	B	G	B	G	B	G
Pass 1	1	1	1	2	2	2
Ques 1	2	2	0	1	2	2
Ques 2	0	2	0	1	2	2
Pass 2	2	1	1	2	2	2
Ques 1	2	2	2	2	2	2
Ques 2	2	0	0	1	2	2
Ques 3	2	2	2	2	2	2
			T			
Pass 3	2	1		2	2	2
Ques 1	2	2		0	2	2
Ques 2	0	0		0	2	0
Ques 3	1	0		T	1	2
	T	T				

Pass 4					2	2
Ques 1					2	1
Ques 2					2	2
Ques 3					2	2
Ques 4					2	0
Pass 5					2	1
Ques 1					na	na
Ques 2					na	na
Ques 3					2	0
Ques 4					na	na
Ques 5					2	2
Ques 6					2	na

School D (rural)

	Grade 3				Grade 4				Grade 6			
	4B	3B	G	G	5B	1B	8G	5G	8B	3B	3G	12G
Pass 1	1	1	1	2	2	2	2	2	2	2	2	2
Ques 1	1	1	1	2	2	2	2	2	2	2	2	2
Ques 2	0	0	0	2	2	2	0	0	2	2	2	2
	T	T	T									
Pass 2				1	2	2	2	2	2	2	2	2
Ques 1				2	2	2	2	1	2	2	2	2
Ques 2				2	1	2	2	1	1	2	2	2
Ques 3				2	2	2	2	2	2	2	2	2
								T				
Pass 3				1	2	2	1		2	2	2	2
Ques 1				2	2	2	0		2	2	2	2
Ques 2				2	0	2	2		2	2	2	2

Ques 3				1	0	0	0		1	1	0	0
				T	T	T	T					
Pass 4									2	2	2	2
Ques 1									2	2	2	2
Ques 2									2	2	2	2
Ques 3									2	2	2	2
Ques 4									0	1	2	2
Pass 5									2	2	2	2
Ques 1									na	na	2	2
Ques 2									na	na	na	na
Ques 3									2	2	0	2
Ques 4									na	na	na	2
Ques 5									2	0	0	2
Ques 6									2	0	T	2

School I (rural)

	Grade 3		Grade 4		Grade 6	
	B	G	B	G	B	G
Pass 1	Pupils not available		1	1	2	2
Ques 1			2	2	2	2
Ques 2			2	0	2	2
Pass 2			1	0	2	2
Ques 1			2	2	2	2
Ques 2			1	0	2	2
Ques 3			2	2	2	2
Pass 3			2	0	2	2
Ques 1			2	T	2	2
Ques 2			1		2	1

Ques 3			0		2	1
Pass 4			1		2	2
Ques 1			1		2	2
Ques 2			2		2	2
Ques 3			1		2	2
Ques 4			0		2	2
			T			
Pass 5					2	2
Ques 1					2	2
Ques 2					na	na
Ques 3					2	2
Ques 4					na	na
Ques 5					0	2
Ques 6					2	2

School K (rural)

	Grade 3		Grade 4		Grade 6	
	B	G	B	G	B	G
Pass 1	(Pupils not available)				2	2
Ques 1					2	2
Ques 2					2	2
Pass 2					2	2
Ques 1					2	2
Ques 2					2	2
Ques 3					2	2
Pass 3					2	2
Ques 1					2	2
Ques 2					0	2

Ques 3		0	2
Pass 4		2	2
Ques 1		2	1
Ques 2		2	2
Ques 3		2	2
Ques 4		2	2
Pass 5		2	1
Ques 1		na	na
Ques 2		na	na
Ques 3		2	0
Ques 4		na	na
Ques 5		2	0
Ques 6		2	2

School J (urban)

	Grade 3				Grade 4				Grade 6			
	B	B	G	G	B	B	G	G	B	B	G	G
Pass 1	2	2	P	2	2	P	P	P	P	P	P	P
Ques 1	2	na	"	2	na	"	"	"	"	"	"	"
Ques 2	2	2		2	2	"	"	"	"	"	"	"
Pass 2	2	2	2	2	2	2	2	2	2	2	2	2
Ques 1	2	2	2	2	na	2	na	na	na	na	na	na
Ques 2	2	2	2	2	2	2	2	2	2	2	2	2
Ques 3	2	na	na	2	na	na	na	na	na	na	na	na
Pass 3	2	2	2	2	2	2	2	2	2	2	2	2
Ques 1	2	2	2	2	na	na	na	na	na	na	na	na
Ques 2	2	2	2	2	2	2	na	2	2	na	2	2
Ques 3	2	2	2	2	2	2	2	2	2	2	2	2

Pass 4	2	2	2	1	2	2	P	2	2	2	2	2
Ques 1	2	2	2	2	2	2	"	2	2	2	2	2
Ques 2	2	2	2	2	2	P	"	na	2	2	na	na
Ques 3	2	2	2	2	2	2	"	2	2	2	2	2
Ques 4	2	2	2	0	2	2	"	2	2	2	2	2
				T								
Pass 5	2	2	2		1	1	2	2	2	2	1	2
Ques 1	2	2	2		2	2	2	2	2	2	2	2
Ques 2	na	na	na		na	na	na	na	na	na	na	na
Ques 3	2	2	2		2	2	2	2	2	0	2	2
Ques 4	na	na	na		na	na	na	na	na	na	na	na
Ques 5	2	2	2		2	2	2	2	2	2	1	2
Ques 6	2	2	2		2	2	2	0	2	2	2	2

School T (urban)

	Grade 3				Grade 4				Grade 6			
	B	B	G	G	B	B	G	G	B	B	G	G
Pass 1	(pupils not available)				2	1	1	1	2	P	2	2
Ques 1					2	2	2	2	2	"	2	2
Ques 2					2	2	2	2	2	"	na	2
Pass 2					2	0	0	2	2	2	2	2
Ques 1					2	2	2	2	2	2	2	2
Ques 2					2	2	0	2	2	2	2	2
Ques 3					2	0	T	2	2	2	2	2
Pass 3					2	0	1	2	2	2		2
						T						
Ques 1					2			0	2	2	2	2
Ques 2					2			1	2	2	2	2

Ques 3		0			1	2	2	2	2
Pass 4		2			1	2	2	2	1
Ques 1		2			2	2	2	2	2
Ques 2		2			2	2	2	2	0
Ques 3		2			0	2	2	2	2
Ques 4		1			0	2	2	1	2
					T				
Pass 5		2				2	2	1	1
Ques 1		0				2	2	2	2
Ques 2		na				na	na	na	na
Ques 3		1				2	2	2	2
Ques 4		na				na	na	na	na
Ques 5		2				2	2	2	2
Ques 6		0				2	2	2	2



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Appendix M - Extract: Draft teaching syllabus, functional objectives, reading, grade 7

(mimeo, MOE. No further details, see 6.2.2)

By the end of Grade 7 (all pupils should be able to):

1. spell aloud, by naming letters, any words taught in Grades 1-7

2. recognise and read aloud with confidence and fluency all the sight words taught in Grades 1-6, and continue to build up their sight vocabulary by approximately 400 words to attain a sight vocabulary of about 1800 head words by the end of Grade 7

3. apply known phonic rules to words familiar from Spoken Language work but not previously seen in print, and in this way be able to read aloud such words without prior "look and say" presentation by the teacher (see the section on phonics for the phonic rules to be taught in Grade 7,) sight words and words decipherable by phonic analysis combining to give a reading vocabulary of 2500-3000 words by the end of Grade 7

4. read aloud with greater fluency and expression than in Grade 6, sentences or a passage where

they can be expected either to recognise all the words because they have been pre-taught, or to sound them out by applying known phonic rules

5. read silently or (sic) a passage that they can be expected to read on their own (i.e. a passage which contains no words that they cannot either recognise or read by applying phonic analysis)

6. read silently for pleasure (i.e. in extensive reading) at a speed of around 100 words per minute

7. demonstrate understanding of passages that they have either read aloud or which they have read on their own by answering the following:

factual questions of increasing difficulty
compared with Grade 6
inferential questions suitable for this level

questions which relate what they have read to their own personal experiences such questions may be

1) presented either orally or in print

2) answered with short answers or a full sentence as appropriate

3) of the Yes/No type (closed question), alternative questions (i.e. questions with "or"), or of the wh-type, (i.e. open questions which begin with questions words like: what, where, when, who why, how, etc...)

8. express opinions, based on their interpretation of

what they have read, on character, plot and reasons for behaviour and make simple value judgements

9. read and demonstrate understanding of (by answering questions or carrying out instruction) the following types of reading materials:

narrative passages and stories in the Pupils' books or any other source of the same level including stories from the Good News Bible stories and articles from Orbit and Chonogolo Magazines and stories from any supplementary readers of the appropriate level formal letters such as letters to the newspapers, letters of complaint, letters making or asking for appointments etc

telegrams

newspaper articles of a suitable level, especially headlines and editorials, and feature articles

official forms (to be combined with writing exercises on how to fill in such forms) such as applications for things like a driving licence, a travel document, a hunter's licence, a charcoal burning licence etc...

National Registration Forms, insurance forms, an affidavit etc... instructions on the various pieces of equipment etc...they might come across for e.g. for wiring a plug, installing a piece of household equipment, e.g. a fridge or a T.V. and instructions for using and maintaining such equipment as they are likely to meet with in their places of work

material relating to matters of National Development and other concerns of public interest using authentic materials produced by the relevant Government Departments where possible

instructions on examination papers

advertisements in newspapers

official announcements

savings books, payslips, money orders, cheques, bills

10. read and interpret information set out in charts, simple maps, diagrams, plans and simple graphs of increased difficulty as compared with Grade 6

11. show that they can tell the difference between fact and opinion with reference to materials suitable to this level e.g. a simulated newspaper article which is biased.

12. show that they can predict from a heading, summary, picture, caption etc... the probable content of what they are about to read.

13. state their purpose in reading a particular passage e.g. for instructions, to gain specific information or to get the gist of a passage.

15. use alphabetical lists of words and use a purpose written section of a dictionary (if a real dictionary is not available) to look up meaning of words

16. infer the meaning of words and structures not

previously taught from the context in the reading passage and from their knowledge of word building.

17. read and demonstrate understanding of such reading materials as may be used in the teaching of other subjects at this level and authentic materials, e.g. the National Provident Fund Brochure which they may need in life outside school.



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Report on reading in English in primary schools in

Zambia - Education Research Paper No. 05, 1993, 55 p.

Overseas development administration

Summary and recommendations

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6. Approaches to reading in Zambian primary schools

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References and select bibliography

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Appendix B - Methods of teaching initial reading

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Appendix E - Word find reading test: Extracts

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Acknowledgements