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DEVELOPING A MASTERY LEARNING INTERPRETATION OF LEARNER PERFORMANCE

MATTHEWS MATOME MAKGAMATHA

Human Sciences Research Council, Pretoria

ABSTRACT

The paper describes a mastery learning interpretation of reading performance in a district-wide reading attainment study conducted in South Africa. The mastery learning instructional strategy is based on the principle that all learners can learn a set of reasonable objectives given appropriate instruction and sufficient time to learn. The strategy also requires that there should be some pre-determined, understood and agreed-upon level of knowledge or skill to be attained by learners. Schools which participated in the study belonged to the four former racially-based departments of education, namely Africans-, Coloureds-, Indians - and Whites-only education departments. The purpose of the study was to determine the English reading attainment in Grade 3, using a learner assessment instrument. Although the study was criterion-referenced in design, there were no pre-determined levels of performance. The latter were determined in the post-data collection period. Two levels of mastery, the minimum and desired, were set in consultation with district officials and used for interpreting the findings. The results showed that English home language speaking learners had the highest reading attainment than their non-English counterparts. A similar pattern was observed between non-English speaking learners in English medium schools and the learners in non-English medium schools.

INTRODUCTION

Mastery learning is a set of instructional strategies or a philosophy about teaching and learning which posits that "... any [teacher] can help virtually all [learners] learn equally, excellently, quickly, and self-confidently" (Block, Efthim, & Burns, 1989 p.3) regardless of the cognitive or affective problems they may have. All what is needed is to have appropriate instructional conditions and adequate time to allow learning to take place (Block, 1972).

The direction of a good mastery learning programme is dictated by its goals and objectives and not by tests. In implementing such a programme, the concepts and materials that are to be learned should be organised or subdivided into teaching-learning units which can be progressively presented during the set instructional period, say a week or two (Block & Burns, 1976). Successful completion of a unit will be followed by an assessment to

determine whether mastery of the unit has occurred or not. Assessment is used to provide evidence concerning whether or not the goals and objectives have been mastered.
This type of assessment is called formative assessment and its purpose is to identify what learners have learned well and what they still need to learn better (Guskey, 1994). It often carries with it explicit suggestions regarding the kind of corrective instruction required to facilitate the achievement of mastery.

This paper describes the application of mastery learning to interpret the performance of learners on a district-wide assessment of reading in English. The assessment was conducted by the Human Sciences Research Council (HSRC) in schools under the then Benoni/Brakpan district of the Gauteng Department of Education in South Africa. To begin with, a brief historical review of the association of the HSRC and the Benoni/Brakpan district will be given. This will be followed by a description of the actual study which will include the study design, the materials used, the participants, analyses of results and the discussion thereof in the context of mastery learning.

BACKGROUND TO THE STUDY

In 1998/99 the HSRC was requested by the Benoni/Brakpan district of the Gauteng Department of Education to conduct a district-wide assessment of reading in English. This assessment was conducted as a component of the district's Early Reading Workshop – an initiative aimed at fostering the teaching and learning of reading skills in the Foundation Phase (that is, first three years of schooling). The Workshop came to being after a realisation that the majority of learners in the Foundation Phase were experiencing problems in reading in English. According to the district, there appears to be three causes to this problem. Firstly, the original curriculum framework documents in the post apartheid South Africa were silent on reading and writing instruction; Secondly, there were no clear guidelines for teachers on the teaching of pre-literacy skills and as a result these skills were given little or no attention in the classroom; Thirdly, teachers were wrongly operating under the assumption that in the new curriculum children will acquire reading incidentally.
The Workshop was regarded as an educational laboratory for "developing new strategies and innovative approaches to improve the teaching of reading" (Fleisch, 2000 p.1). Its aim was to improve the reading performance of learners in the Foundation Phase in all schools in the district. The district-wide assessment was to be used by the district to put pressure on the learners, teachers and schools to perform better while at the same time providing support to these stakeholders to meet the pressure. The HSRC's participation in the

Administration Procedure

District officials who had participated in the pilot study were enlisted to administer the assessment instruments in the main study. It was thought that their familiarity with the project could facilitate standardisation of the process. Each administrator was assigned to at least four schools. The administration of the oral sub-test was 30 minutes long whereas the reading sub-test took learners 60 minutes to finish. In each Grade 3 class unit, both Forms A and B were handed out to consecutive learners. As a result, half the class responded to Form A and the other half to Form B.

THE ORAL SUB-TEST

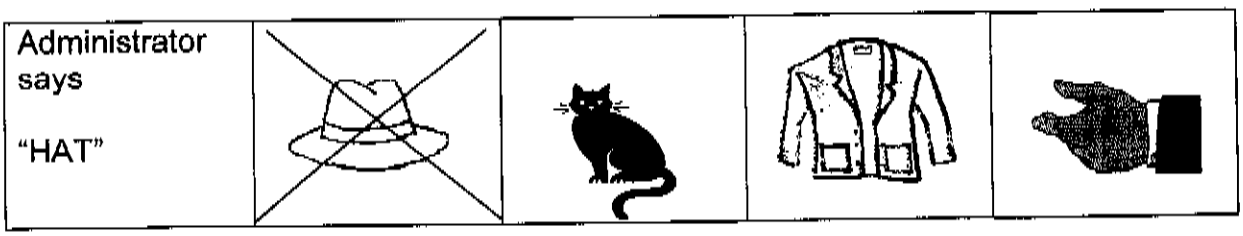
In the "Oral" sub-test instructions were read out aloud by the test administrator and learners were required to respond by consulting the test booklet and marking the appropriate box. This section included the following sections:

Picture-spoken word matching (Section 1):

The aim of this section was to test English vocabulary and knowledge of the test items. This section comprised pictures that were used by teachers during the pre-test training to familiarise learners with the test. The pictures were chosen so that objects and names used were familiar to second language English speakers.

Example

The test administrator says the word "hat" and learners were required to cross the picture of the hat.



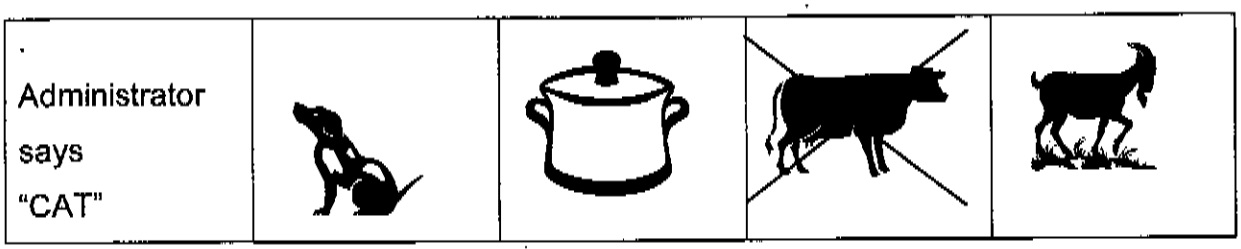
Picture-sound matching (Section 2):

This section was to determine the learners' ability to segment the sounds which make up words, in three positions, namely beginning sound (easiest), end sound and middle sound (hardest). This ability to analyse a word into its component sounds or phonemes (referred to as phonological awareness) is strongly related to success in the early stages of learning

to read and develops in conjunction with familiarity with written language (Blachman, 1997; Brady & Shankweiler, 1991; Goswami & Bryant, 1990; Perfetti, Beck, Bell & Hughes, 1987; Wagner & Torgensen, 1987).

Example

The test administrator says the word "CAT" and learners were required to cross the picture that begins with the same "C" sound, i.e. COW

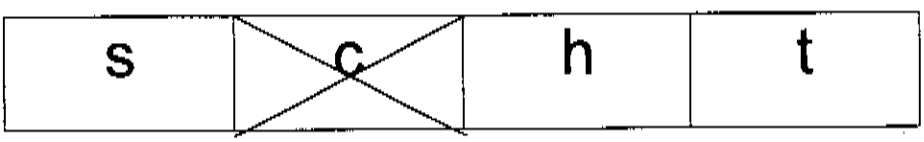


Matching spoken sound to written symbols (Section 3):

Like the picture-sound matching (Oral: section 2), this section determines aspects of phonological awareness combined with knowledge of spoken sounds and their corresponding written letters. Again, three letter positions were tested.

Example

The test administrator says the word " CAT" and learners were required to cross the corresponding alphabet that denotes the beginning sound of the word, i.e. "C".



Letter-sound and letter-name matching (Section 4):

Knowledge of the relationships between written symbols and spoken sounds is fundamental for successfully decoding the written word (Bruck, Genesee & Carvolas, 1997; Stuart, 1999). This section determines the learners' ability to match written symbols (both upper and lower case) to spoken sounds and to the spoken name of the letter. To become successful at spelling it is important that the child learns to use the names of the letters, especially in a language such as English where the same sound may be represented by different symbols, for example, "sea" and "see".

Workshop was limited to conducting the assessment to determine the English reading attainment in Grade 3.

METHODOLOGY

Design and Sample

The Benoni/Brakpan[1] district was one of the 18 districts of the Gauteng Department of Education (GDE) formed as a result of the post-apartheid education transformation. It inherited in its jurisdiction schools from the following former racially based departments of education[2]: Department of Education and Training (DET), House of Assembly (HOA), House of Delegates (HOD) and House of Representatives (HOR) (see Table 1).

Table 1: Number of Schools in Benoni/Brakpan by Ex-Departments

Ex-Department	Number of Schools				
	Total	Primary	Intermediate	Combined	Secondary
DET	77	55	1	0	21
HOA	31	20	0	1	10
HOD	5	3	0	0	2
HOR	2	1	0	0	1
Total	**115**	**79**	**1**	**1**	**34**

The study sample was stratified to represent schools that fell within the former racially classified departments of education (see Table 2). Included in the sample were schools with English as the language of learning and teaching, as well as schools that used one of the other official languages[3]. The final sample comprised 25% of schools offering Grade 3.

Table 2: Study Sample Grouped by Ex-Department

Ex-Departments	Total number of Primary Schools	Number of Sampled Schools	Number of Learners Sampled	Percent of Total
DET	50	12	557	65.9
HOA	19	5	166	16.3
HOD	4	2	80	12.8
HOR*	1	1	42	5.0
Total	**74**	**20**	**845**	**100.00**

*Only one ex-HOR school in the district.

For the within-school samples, intact class units were use. Thus a randomly selected

[1] The Benoni/Brakpan district has since been amalgamated into the Ekurhuleni East mega district.
[2] DET , HOA, HOD and HOR were separately in charge of the education of African-, White-, Indian- and Coloured-population groups respectively before the 1994 democratic changes in South Africa.
[3] Afrikaans, isiNdebele, Sepedi, Sesotho, Setswana, siSwati, Xitsonga, isiXhosa, Tshivenda, and isiZulu

Grade 3 class unit from each of the selected schools was included in the sample. A total of 845 learners, with an approximately equal number of boys (N=417) and girls (428) comprised the sample for the main study.

A closer look at the sample revealed that the majority of the learners sampled (91.6%) were not English mother-tongue speakers. Of these group, 89.8 % attended schools where the language of learning and teaching was not English (72.0% ex-DET, 12.4% ex-HOA and 5.4% ex-HOR). Since the study investigated English language reading skills, learners from each school in the sample were grouped into the following two additional categories: those with English as their home language and those with any of the other official languages as home language (other language). This distribution, aggregated by ex-departments is presented in Table 3.

Table 3: Summary of Home Language of Learners by Ex-department

Ex-Department	English		Other		Total	
	Number	%	Number	%	Number	%
DET	-	-	557	100.3	557	65.9
HOA	36	21.7	130	78.3	166	19.6
HOD	35	43.7	45	56.3	80	9.5
HOR*	-	-	42	100.3	42	4.0
Total	**71**	**8.4**	**774**	**90.9**	**845**	**100.0**

* Only one school in district

Materials and Instruments

All instruments used in this study were developed by the HSRC in consultation with the district and a language consultant. They were designed to address the purpose of the study and piloted before being applied in the main study. It was anticipated that there would be a large variation in ability, arising from the variety of conditions that the learners experienced as well as the differences in levels of knowledge and familiarity with English. Since it was desirable for all learners to achieve a score on the test, the instrument not only included tasks appropriate to the Grade 3 reading skills, but also tasks which preceded this level. Another reason for including the earlier levels was to identify areas of skill development that might warrant more focused attention and to provide examples of the skills that teachers might want to develop further.

A number of factors were taken into account in the development of this assessment instrument.

i. Many of the learners in the study were not first language English speakers.

ii. The instrument should permit a wide range of scores: each learner should be able to achieve a score on the instrument while no learner, even English home language speakers, should find the instrument too easy.

iii. A multiple-choice format was chosen for the instrument to facilitate scoring and because it was considered to be familiar to the learners.

The assessment instrument comprised an "Oral" Sub-test and a "Reading" Sub-test. The format of the questions in each sub-test was the same to permit comparison of performance in the different modalities. Each sub-test was divided into various sections, each having its own aim. In addition, two forms of each instrument, that contained similar items, were developed. Learners and their teachers were prepared for the administration of the instruments.

Preparing Learners for Instrument Administration

The purpose of this preparation was to ensure that all learners had an opportunity to become familiar with the basic English vocabulary required to perform some of the tasks, and become familiar with the procedure used to test them. Many Grade 3 learners were not accustomed to working individually and to completing written tasks independently at their own rate, thus a standardised administration approach was preferable.

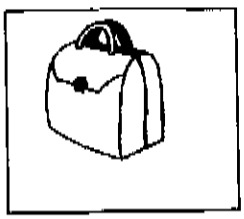
Also, a meeting was held with the teachers from the selected schools to familiarise them with the project and to explain the training procedure to them. These class teachers were requested to train learners to recognise the pictures that they would encounter in the tests, and to associate the appropriate English words with the pictures. All the pictures used in the final version of the instrument represented images of familiar objects, and were selected from the items used in the pilot study. This eliminated discrepancies due to misnaming of the pictures and items and/or to lack of knowledge of general words required to respond to the test. In addition, the set of practice items included words from the instructions of the reading test as well as the examples from each test section. This was to ensure that all learners would recognise and understand the instructions.

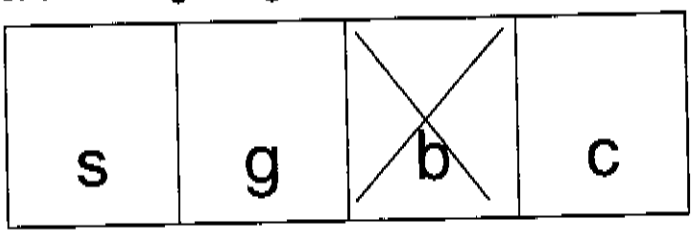
To further familiarise the learners with the format of the tasks in the reading test, the oral test was administered first. The latter included the same kind of tasks and format used in the Reading Sub-test. The administrator read the instructions and items for the Oral Sub-test but the learners had to read the instructions and items in the Reading Sub-test.

Matching initial sounds of pictures to written letters (Section 7 and 9):

These sections, which involve tasks similar to the Oral sections of *matching spoken sounds to written symbols* and *letter-sound and letter-name matching*, determined the segmentation ability and letter sound knowledge of learners. This task dictates that the initial sound be segmented from the word associated with the familiar picture and then matched to the appropriate letter symbol.

Example: Cross the **letter at the beginning** of the picture.

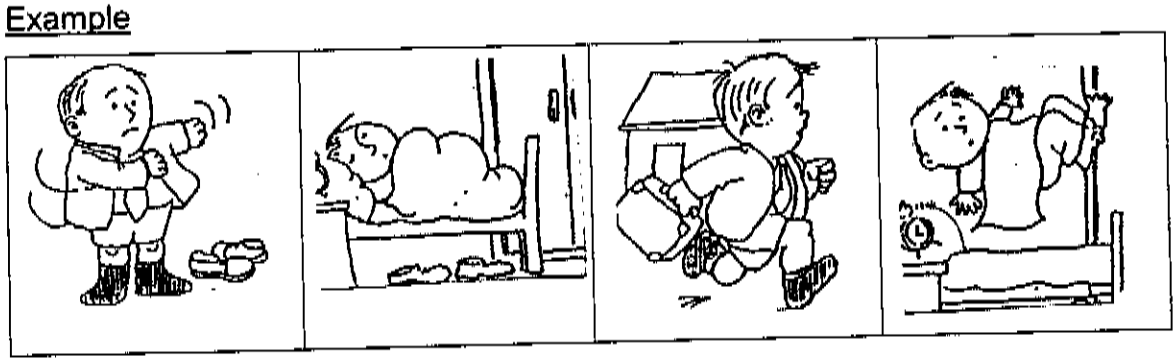




Picture-story sequencing (Section 5):

The stories used in this section were the same as the one given in the Oral sub-test's Section 7 (picture story sequencing) and were also presented in the training. Thus poor performance should not reflect a lack of understanding of the instructions, but unfamiliarity with the interpretation of pictures and their meaningful sequencing, which is an important aspect of interpretation of text. The instructions specified that learners were to determine the beginning and end of the story presented in the pictures.

Example



The story begins in

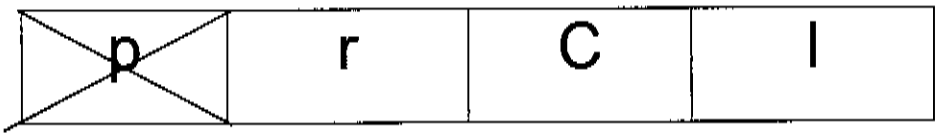
1	2	3	4

The story ends in

1	2	3	4

Example

The test administrator call out a relevant sound p (puh) and learners are required to cross out the corresponding alphabet.

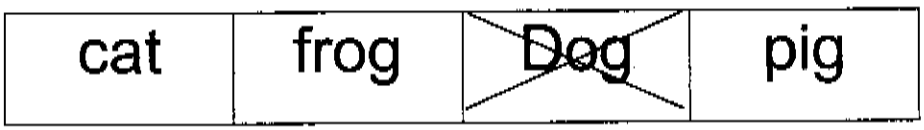


Single word reading (Section 5):

This section determines ability to read single words by requiring the learner to match a spoken word to a written word. Both familiar items whose pictures (but not the written words) were in the training list and unfamiliar items were included.

Example

The test administrator reads out a relevant word "DOG" and learners are required to identify the correct written form of the word and cross it out.

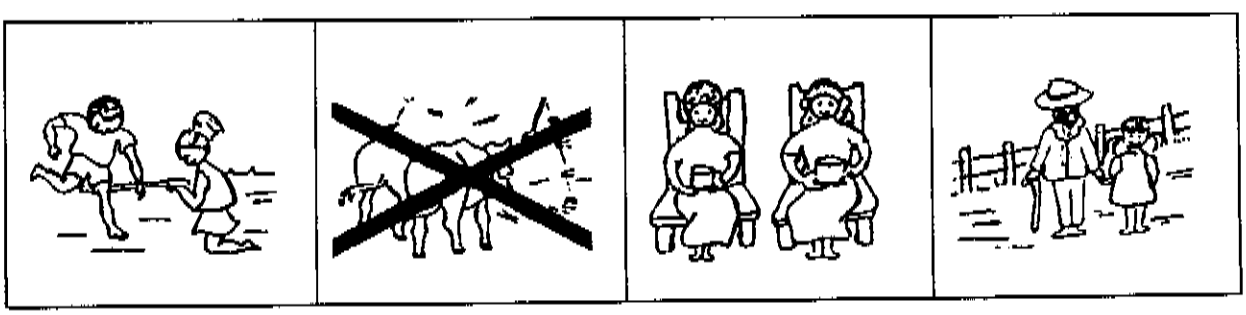


Sentence comprehension (Section 6):

In this section, spoken sentences are matched to an appropriate picture to determine the learners' comprehension of spoken English (linguistic comprehension). Both simple sentences and complex sentences are included to accommodate the performance of first and second language English learners.

Example

The test administrator reads out a relevant sentence ("There are two cows") and learners are required to identify the correct picture that represents the sentence and cross it out.

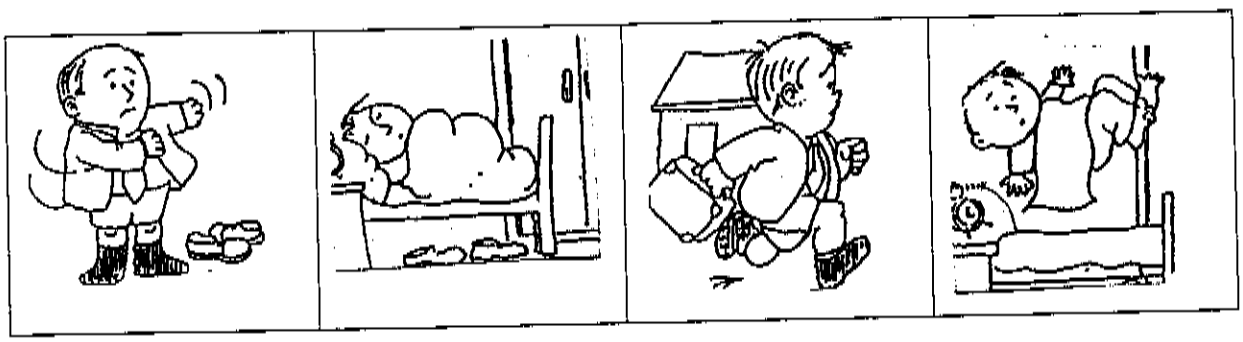


Picture story sequencing (Section 7):

This section introduces picture-story sequencing and the format of the question about the sequence of the story. The purpose of this section was to familiarise children with this task that they will encounter in the reading test.

Example

The test administrator reads out a sentence that depicts each picture (e.g. "he is getting dress"). Learners were required to identify which picture marked the beginning and end of the story sequence.



The story begins in

1	2	3	4

The story ends in

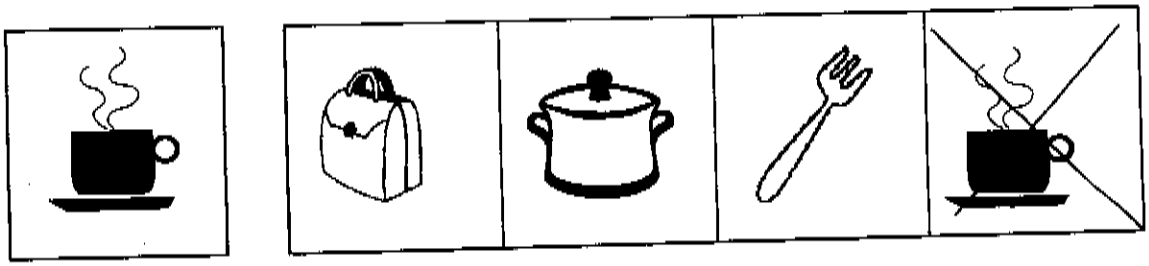
1	2	3	4

THE READING SUB-TEST

To assess English reading, the following sections had to be completed by learners: In this sub-test, however, learners were required to read and follow all instructions on their own.

Visual discrimination (Section 1):

In this section learners were required to choose a picture from four alternatives that exactly matched the first picture in the row. All pictures were familiar to learners as items were taken from the training set.

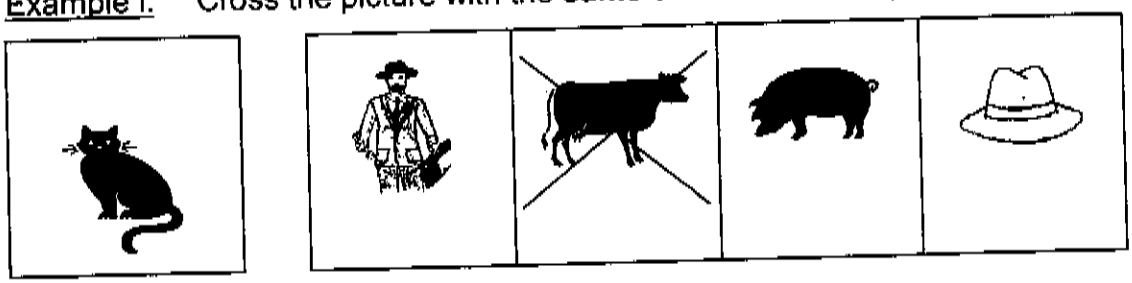


This task was included in order to test the learners' ability to understand the instructions and the format of the test.

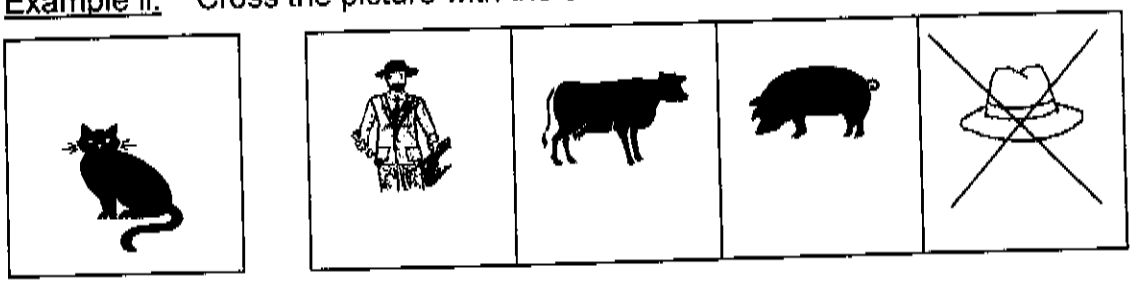
Matching pictures that have the same sound (Sections 2, 3 and 4):

These sections determined the learners' phonological awareness skills by requiring them to segment the sounds from the beginning, middle and end of words, and match the sound to another picture with the same sound in the same position. This task is a written version of the Oral sub-test's picture-sound matching section. Thus performance should correspond to that of the oral performance, except for learners who are not accustomed to written tasks and have difficulty following instructions. As in the previous section, learners were required to choose a picture from four alternatives that exactly matched the first picture presented.

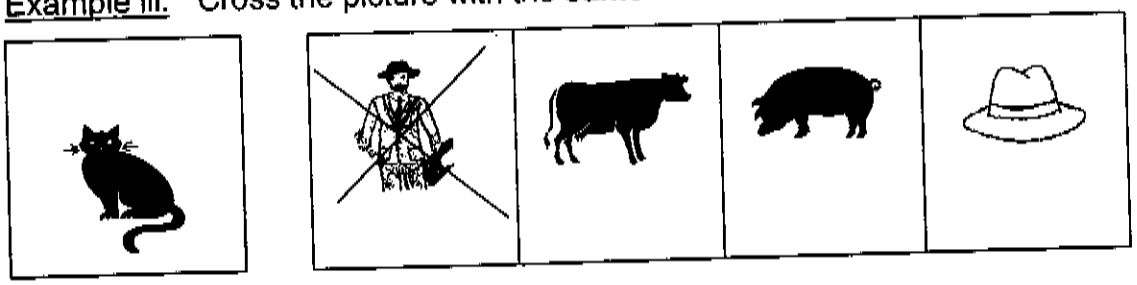
Example i: Cross the picture with the **same sound at the beginning.**



Example ii: Cross the picture with the **same sound at the end.**



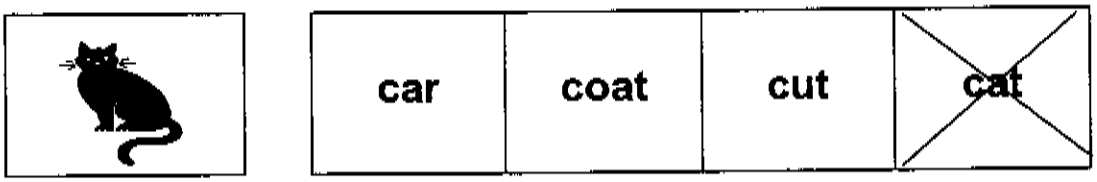
Example iii: Cross the picture with the **same sound at the middle.**



Matching a familiar picture to its written word (Section 8):

This task corresponds to Oral sub-test's *single word reading* section, as both tasks require the learner to read the printed words and choose the appropriate word to match either the spoken English word, or the familiar picture. The distracter items are visually similar and a learner with poor knowledge of letter-sound correspondence will not perform very well on this task.

Example: Cross the word that **matches** the picture.



Matching printed sentence to a picture (Section 6):

This section assess the syntactic and semantic knowledge as well as decoding skills, and require learners to decode the English words presented and access their meaning to understand the sentences. Poor performances may be due to either poor decoding skills or poor syntactic and semantic knowledge.

Example: Cross the picture that matches the sentence.

Matching similar sounds in words with different graphemes (Section 10):

This section requires an advanced knowledge of English phonics and letter-sound correspondences as learners are required to choose a word containing a matching sound to the target word, for example, "go" matched to "show" but not to "now". This demanding task will challenge the reading skills of the first language English speakers. Successful performance indicates well-developed decoding ability and familiarity with written English.

iv. Compared to all other learners, English home language speakers (all of whom attended English medium schools) had the highest attainment for both the minimum and desired mastery levels in all sections for both sub-tests. These differences were especially evident in the Reading Sub-tests

v. This pattern is replicated for Non English speakers attending English medium schools when compared to those learners whose home language was not English, and were attending schools where language of learning and teaching was in one of the other official languages.

Table 7: MML and DML Attainment by Home Language and School Type for Oral and Reading Sub-test Sections

School Type	DET		HOA				HOD				HOR	
Language	Other		Other		English		Other		English		Other	
Mastery Levels	MML	DML	MML	DML	MML	DML	MML	DML	MML	DML	MML	DML
Oral: section 1	97.5	84.2	99.2	96.2	100	94.4	100	91.1	100	94.3	100	97.6
Oral: section 2	25.3	9.2	66.2	43.1	91.7	69.4	60	24.4	88.6	65.7	66.7	26.2
Oral: sections 3 & 4	67.1	26.4	93.8	70	100	91.7	91.1	66.7	94.3	85.7	88.1	33.3
Oral: section 5	48.5	3.2	86.9	26.9	100	55.6	97.8	51.1	100	60	66.7	4.8
Oral: section 6	71.5	21	97.7	78.5	97.2	97.2	100	82.2	100	88.6	92.9	66.7
Read: Sections 2, 3 & 4	4.1	0.9	41.5	13.1	80.6	36.1	44.4	17.8	62.9	34.3	19	11.9
Read: Section 5	7.5	1.6	39.2	16.9	63.9	25	24.4	2.2	25.7	8.6	21.4	7.1
Read: Sections 7 & 9	45.6	25.5	84.6	70.0	94.4	91.7	91.1	82.2	94.3	88.6	52.4	40.5
Read: Section 8	46	25.5	80	53.1	88.9	80.6	93.3	80	97.1	91.4	59.5	40.5
Read: Section 10	6.1	2.2	39.2	26.9	80.6	66.7	31.1	15.6	65.7	51.4	23.8	16.7
Read: Sections 6 &11	5.6	2.5	49.2	36.2	83.3	72.2	44.4	26.7	80	68.6	26.2	11.9

Additional information derived from the analysis also highlights the following:

i. Across all language groups and ex-departments, relatively lower number of learners mastered the picture story sequencing section (5) on the Reading Sub-test. This is especially evident for the English home language speakers who should have demonstrated much higher mastery levels. A possible explanation could be that the pictures presented were vague and unclear and thus most learners did not correctly interpret these pictures.

ii. Very few learners in the ex-DET schools demonstrated mastery of phonological skills (Section 2,3 &4), decoding ability (Section 10) and reading comprehension

(Section 6 & 11) with only 4.1, 6.1 and 5.6 percent respectively attaining MML and 0.9, 2.2 and 2.5 percent respectively attaining the DML.

iii. For the Reading Sub-test, the highest levels of mastery, at both the MML and DML, across all language groups and school types was demonstrated in Section 7 and 9 (Matching initial sounds of pictures to written letters) and Section 8 (Matching a familiar picture to its written word).

CONCLUSION

Valuable information was gathered from interpreting the findings in terms of the attained levels of mastery even if there were no pre-determine levels of performance from the outset. By analysing the results using the two levels of mastery, MML and DML, it was possible to identify the learners' levels of reading and the gabs in reading attainment. The challenge for the district and schools is to identify those factors that impact on the learners' ability to master the skills required to improve their ability to read in English. This has serious implications for the teaching and learning process as well as for the development and implementation of intervention programs.

answer correctly (Gronlund, 1973). For the total percentage scores in both the Oral and Reading Sub-tests, the minimum mastery levels were set at 50% while the desired mastery levels were set at the average of the different sections of each sub-test (that is, 100% for the Oral Sub-test and 88% for the Reading Sub-test). However, to attain 100% is quite unrealistic since a learner must get 36 out of 36 items correct, which is not easy to attain in practice as any test taker inevitably make one or two errors, even in cases when they are able to answer all questions correct. Thus a more realistic DML target was set at 94% (34/36), allowing learners some margin of error (5%). Table 4 indicates the MML and DML for the different sub-tests of the Oral and Reading sections.

Table 4: Minimum and Desired Levels of Mastery Learning[4]

Sub-test sections	**Number of items**	**Minimum Mastery Level (MML)**	**Desired Mastery Level (DML)**
Oral: Section 1	5	80%	100%
Oral: Section 2	6	80%	100%
Oral: Sections 3 & 4	11	80%	100%
Oral: Section 5	10	60%	100%
Oral: Section 6	4	75%	100%
Total Oral	**36**	**50%**	**94%**
Read: Sections 2, 3 & 4	9	75%	90%
Read: Section 5	6	75%	90%
Read: Sections 7 & 9	4	75%	100%
Read: Section 8	5	80%	100%
Read: Section 10	5	60%	75%
Read: Sections 6 &11	9	60%	75%
Total Reading	**38**	**50%**	**88%**

Learner Performance on Oral and Reading Sub-tests

In this section an overview of the performance of learners attaining MML and DML is presented. All analyses were conducted without accounting for school type or home language. In Table 5 the percentages of all learners in the sample who attained the minimum and desired mastery levels in different sections of the Oral and Reading Sub-tests are presented. It is quite clear that learners performed much better on the Oral Sub-test. In all sections for both sub-tests greater percentage of learners attained the MML, ranging from 17.2 (Reading section 5) to 98.2 (Oral section 1). For the DML however, besides Oral section 1 (87.9%), the attainment levels were all less than 42%, ranging from

[4] Section 7 of the Oral Sub-test and Section 1 of the Reading Sub-test have been excluded from analysis as these sections were included for practice purposes.

Example: Cross the word that **sounds like** the first word.

go	you	now	two	show

Passage comprehension (Section 11):

To assess reading comprehension learners were required to select the correct answer to a written English question based on a given passage. The questions posed focused on inferences, generalisations, sequence, cause and effect.

Example: Read the story below and answer the questions.

Passage presented about someone going to the doctor.

Peter went to the doctor on

A. Monday
B. Tuesday
C. Wednesday
D. Thursday

MARKING, DATA CAPTURING AND CLEANING

After testing all scripts were marked and coded by Grade 3 teachers from schools that were not included in the project. Ten percent of the scripts from each school were moderated by HSRC researchers and markers were given regular feedback. The process of script coding and marking was followed by data capturing and cleaning in preparation for the analysis of the data.

RESULTS AND DISCUSSION

The aim of the study was to determine the English reading attainment of Grade 3 learners using an instrument that assessed both the oral and reading skills associated with reading ability. In order to interpreted the findings in a mastery learning approach, two levels of mastery were determined during the post-data collection period in consultation with the Benoni/Brakpan district officials. These were the *minimum* (MML) and *desired mastery levels* (DML). The definition of mastery levels were based on the percentage of items that a learner, at a specific level of performance – minimum or desired, was expected to

The DML was relatively low across all schools, especially for learners whose home language was not English. For example, only 2.5% of learners attending ex-DET schools attained the DML on the Oral Sub-test while not a single learner attained the DML on the Reading Sub-test. This pattern is replicated for the Oral and Reading Sub-test percentages with learners attaining higher minimum and desired mastery levels on the Oral Sub-test. As expected, English home language speakers also attained higher levels of minimum and desired mastery levels than their counterparts in both English and other language medium schools. In addition, learners attending ex-HOA and ex-HOD schools but whose home language was not English attained significantly higher mastery levels than their counterparts attending ex-HOR and ex-DET schools. This pattern is especially evident at the MML on the Reading Sub-test. For the DML however, the levels of attainment of learners with other home languages are all below 10%, which is significantly less than that of English home language speakers (ex-HOA=44.4% and ex-HOD=22.9%). It is worth noting that in the ex-HOA schools, however, more English home language speakers attained the DML on the Reading Sub-test than on the Oral Sub-test. This result could mean that the high performing English speaking learners in these schools are much more familiar with the Reading component. While certainly not a critical area in need of urgent attention, this result does suggest the need for greater emphasis on Oral skills for these learners.

MML and DML Attainment by Home Language and School Type for Oral and Reading Sub-test Sections

Table 7 presents the percentages of learners who attained the minimum and desired masterly level for each section of the Oral and Reading sub-tests aggregated by home language and school type (i.e. by ex-department). This information is important as it provides greater insight regarding learners' mastery of specific content areas and could prove useful in the development of relevant intervention programs. The data reveals similar patterns of performance as observed above. In general:

i. attainment of minimum and desired mastery levels was higher on the Oral Sub-test than the Reading Sub-test,

ii. the attainment of MML was significantly higher than the DML attainment across all test sections,

iii. attainment of the DML was relatively low for all sections for both sub-tests across all language groups and ex-departments,

7.1% (Reading sections 2,3 &4) to 41.5% (Reading sections 7 & 9). The differences between the attainment at the MML and DML are most acute in the Oral Sub-test with a minimum of 10.3% (Oral: Section 1) and a maximum of 48.1% (Oral: Section 5). In the Reading Sub-test, the percentage differences range from 6.7% (Reading Section 6 &11) to 20.3% (Read: Section 8).

Table 5: Percentages of Learners Attaining MML and DML by Sub-test Sections

SUB-TEST SECTIONS	NUMBER OF ITEMS	MML	DML
Oral: Section 1	5	98.2	87.9
Oral: Section 2	6	40.9	21.3
Oral: Sections 3 & 4	11	76.1	40.8
Oral: Section 5	10	62.2	14.1
Oral: Section 6	4	80.4	41.4
Total Oral Sub-test	**36**	**94.8**	**16.3**
Read: Sections 2, 3 & 4	9	18.5	7.1
Read: Section 5	6	17.2	5.6
Read: Sections 7 & 9	4	58.5	41.5
Read: Section 8	5	58.8	38.5
Read: Section 10	5	19.1	12.2
Read: Sections 6 &11	9	21.8	15.1
Total Reading Sub-test	**38**	**38.2**	**4.6**

MML and DML Attainment by Home Language and Ex-Department

Table 6 displays the percentages of learners in the different ex-departments that attained the minimum and desired mastery levels for the Oral and Reading Sub-tests aggregated by home language. Across all ex-departments as well as the different home languages, higher percentage of learners attained the MML.

Table 6: MML and DML attainment by ex-department and home language for total sub-test scores

Home language	Total Oral Sub-test				Total Reading Sub-test			
	Other		English		Other		English	
Ex-Department	MML	DML	MML	DML	MML	DML	MML	DML
DET*	92	2.5	-	-	17.4	0	-	-
HOA	100	38.5	100	83.3	83.1	8.5	97.2	44.4
HOD	97.8	33.3	100	71.4	71.1	4.4	97.1	22.9
HOR*	100	9.5	-	-	40.5	4.8	-	-

*There were no English speaking learners in the ex-DET and ex-HOR schools.

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