Province of the Eastern Cape
Department of Education

Imbewu II
Comprehensive Longitudinal Evaluation

Grade 10 and 12 Learner Study

Baseline Report 2004

"Ideals are like the stars.
We never reach them, but we chart our
course by them."

BASELINE REPORT ON GRADE 10 & GRADE 12 PREPAREDNESS STUDY

PREFACE

The IMBEWU PROJECT was launched, as an Eastern Cape Department of Education (ECDE) pilot initiative in 1997 with funding from the British Government Department for International Development (DFID) for a three year period ending in September 2000. It operated in 26 Districts in 100 pilot school sites in the first year, extending to 423 over the final two years of the project. The overall intention of the project was to improve the quality of teaching and learning, and management, at Primary school level, whilst enhancing the capacity of the Department of Education (DoE) at Provincial, Regional and District levels, to drive and sustain improvements in quality education delivery at schools.

During this three-year project, the core aspects of Education Management Development (EMD) and teaching and learning through in-service Training (INSET), were delivered and supported through a partnership consisting of Non-Governmental Organisations (NGO's), IMBEWU Technical Advisors and Departmental officials.

This systemic approach to the problem of improving the quality of educational outcomes, laid the basis for the development and acceptance of the proposal from the ECDE to DFID to continue to fund a second phase, termed the IMBEWU II PROGRAMME, which kicked off at the beginning of 2002, with funding for a 7 year period.

IMBEWU II is committed to following a more vigorous approach to the integration of the knowledge, skills, attitude change and values, developed and tested during IMBEWU I and for this reason is seen as a fully fledged PROGRAMME within the Department.

IMBEWU II has been characterised by the training and support of 1500 schools towards obtaining Section 21 status (self managing status), some of which were from the IMBEWU I cohort, and the rest consisting of all the Senior Secondary schools in the Province in the foundation modules inclusive of crafting a vision, practice based enquiry, managing change and whole school development.

IMBEWU II has also been responsible for the funding, roll out and support of all Foundation Phase training in the Revised National Curriculum Statements (RNCS), the development of a model for more cost effective school building construction and capital asset management, the development of a district model for support for the decentralisation process, the support of the provincial office as it strives to develop an enhanced strategic role and the support of a comprehensive Provincial INSET policy with particular focus on the Education Leadership and Management Development front.

The DFID Portfolio Review Committee (PRC) submission outlining the structures and parameters of support to IMBEWU II, PRC (43), describes the need for the development of a framework for evaluation in the Programme, and gives notice of some DFID modalities which will be used when developing such a framework:

> *"A comprehensive impact evaluation framework, which includes a baseline for the programme, will be developed in project year 1 (PY1). Continued evaluation of the learners in the IMBEWU schools will provide robust evidence of fundamental change. Impact evaluation will also be designed to measure the effect of this programme on the wider community. Milestones to be achieved by PY3 and PY5 will be developed during the first year of the programme. Evaluations will take place after PY3 and PY5 against the outputs in the logical framework, and a final evaluation in PY7.*
>
> *The programme will provide quarterly reports to DFID. DFID and ECED will conduct joint annual Output to Purpose (OPR) reviews, which will be important as tools for informing any necessary changes or adjustments to the programme's focus and direction. We will invite other donors supporting education in the Eastern Cape to participate in these reviews."*

In accordance with these parameters, ARCADIS BMB, the contracted Managing Agent for IMBEWU 11 for the period 2002 – 2005, developed a comprehensive evaluation framework for the Programme, which is rooted in the PRC (43). This Evaluation Framework incorporates and uses the Integrated Work Plan for the Programme, the Output, Activity and Budget Schedules, the Quarterly Progress Reports and the Output to Purpose Reviews (OPR) and Summative Evaluations, but will go much further in

developing a variety of additional mechanisms with accompanying instruments. These will include a quantitative longitudinal school and learner survey, longitudinal cohort studies, both quantitative and qualitative, and single action study studies. Further, the ECED Education Management Information System (EMIS) contains valuable data, for example that on completion rates, which can serve both monitoring, and evaluation purposes and will also be incorporated into the framework.

An initial framework for a comprehensive evaluation of the Programme was accepted by the Project Steering Committee (PSC) in October 2002, and after extensive input opportunities by Departmental stakeholders at all levels, and the subsequent development of an operational framework, approval was granted for operationalisation, through the Quality Assurance Chief Directorate with the assistance of a Technical Advisory Team, in mid July 2003.

Standing at the heart of the IMBEWU 11 Programme purpose, as depicted in the Programme Logical Framework, is the aim *"to develop an effective, efficient and affordable decentralised education system"*. With this in mind, if evaluation is to have meaning, which goes beyond making judgements, and even beyond contributing to planning, then is has to build capacity in itself for both individuals **at all levels in the system and the system as a whole**.

The challenge however, is that the lower levels in the system, demand a more interpretive evaluation than the upper levels, who demand a more technical, factual and precise evaluation. In order to reconcile these differences, the need for a multi-faceted, multi level approach is imperative if we are to generate the most useful and appropriate information for overall systemic change. The development of basic principles for this evaluation has taken all these dynamics into consideration.

The following **principles** will therefore guide the evaluation process:

a) The evaluation design and process will be **comprehensive**
    - It will cover all aspects of the ECDE delivery and will take cognisance of the context at the various levels.
    - It will take into account both Provincial and National Policy imperatives
    - It will make provision for both summative and formative evaluation

- It will make provision for both qualitative and quantitative evaluation methods
- It will make use of different methodological approaches
- It will be progressive and will take the form of a 6 year longitudinal study study, pre-ceded by a baseline study starting in PY 2 (2003)
- It will form partnership agreements with local Tertiary Institutions.

b) The evaluation process and design will be **embedded and rooted in the ECDE and it will be:**
   - Inclusive of all relevant stakeholders in Education
   - Managed by the Quality Assurance, Examinations and Assessment Chief Directorate
   - Supported by the EMIS
   - Coordinated through IMBEWU 11
   - Managed, developed and designed to build study capacity and practice based enquiry methodology at all levels
   - Seen as the first steps towards the establishment of a Policy, Planning and Evaluation Unit within the Department
   - The first steps towards recognition of study studies, through publication, and presentation of articles and studies, both in house, provincially and nationally.

c) The evaluation procedure and design will be **relevant, useful, sustainable, replicable and reliable. It will:**
   - Make use of existing data sources, e.g. EMIS, Systemic Evaluation of Grades 3,6,9 and 12, Provincial Examination Results for grades 9 and 12, Year end Promotion Schedules, Quarterly Attendance Register Summaries, the School Register of Needs, University and Technikon publications etc.
   - Make use of existing ECDE structures
   - Have buy in from the executive and senior management structures
   - Have clear control, accountability and reporting mechanisms in place from the outset
   - Consist of a representative sample
   - Contain capacity building components (self evaluation formats)
   - Contain a flexible component where emerging policy gaps can be included

(Single Action Study Studies)

- Be presented in a format that can be used for policy development and planning
- Quality Assured at the development phase by relevant experts (Focus Groups and a Reference Group)
- Quality Assured and reviewed for relevance, usefulness, sustainability, replicability and reliability in PY3, 5 and 7 by means of a summative evaluation, which includes the Reference Groups (experts)
- Make use of all available resources synergistically

The following study aims at exploring the extent to which learners from nine sample schools within the three sample Districts chosen as part of the Imbewu II Evaluation process in the Province of the Eastern Cape, are prepared and ready to cope successfully with the challenges of the Grade 10 and Grade 12 years of the FET Sector.

This study was conducted in February/March 2003.

The study forms part of 20 longitudinal qualitative and quantitative studies that will be conducted over the 7-year period of this formative evaluation process. **(See Attachment 6.1. Profile of 20 Studies)**

ACRONYMS USED IN THIS STUDY

CTA	Common Assessment Task
DFID	British Government Department for International Development
DoE	Department of Education
ECDE	Eastern Cape Department of Education
EMD	Education Management Development
EMIS	Education Management Information System
FET	Further Education and Training
INSET	In-service Education Training
LSM	Learner Support Material
MIP	Matriculation Intervention Programme
NGO	Non-Governmental Organisation
OPR	Output to Purpose Review
PRC	Portfolio Review Committee
PSC	Project Steering Committee
RNCS	Revised National Curriculum Statements

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ACKNOWLEDGEMENTS

[1] This is an Excel Document
[2] This is an Excel Document

BASELINE REPORT ON GRADE 10 & GRADE 12 PREPAREDNESS STUDY

1. EXECUTIVE SUMMARY

1.1. Introduction

This extensive baseline study (671 respondents) was designed to ascertain, evaluate and thereby identify key performance indicators that can be used as points of reference for determining the cause of unsatisfactory performances in final matriculation that have been experienced in the Eastern Cape Province over the past decade.

At the same time the design of the study allowed for valid pointers for the implementation of back up remediation measures that can make a positive and effective difference in future.

1.2. Key findings

The initial sample study has revealed a number of significant key findings.

- **(1) Reading skills results are deceptive** - Teachers on a regular basis employ reading by learners as a teaching strategy. This study has revealed that ability to read words has deceptive pitfalls since comprehension was not matched with reading proficiency. Reading without meaning clearly has little education value.

- **(2) Unpreparedness of learners** - at both Grade 10 and Grade 12 there is an overwhelming unpreparedness for the challenges of Further Education and Training (FET) learning in terms of learning skills development in all three of the key skills tested and therefore this provides very clear pointers to a need for remedial interventions that are skills driven and not content driven.

- **(3) Improvement/retrogression from Grade 10 to Grade 12** – there is an expectation that learners should develop their thinking and problem solving skills as they progress through the FET (from Grade 10 to Grade 12) but this study did not reveal such a logical trend. Significantly thinking and problem solving in **numbers testing** from Grade 10 to Grade 12 point towards a significant deterioration of 13.7%. Thinking and problem solving using **word** skills do show the expected improvement in the order of 10.5%. Changes in **spatial** perception are imperceptible and could be considered trivial although the pedagogic inferences that can be drawn from this finding are most significant.

- **(4) Deterioration of thinking in numbers** - Without exception the performances of the learners in the numbers tests indicate a deterioration between Grade 10

and Grade 12. The inference one can draw from this is that there is some sort of "block" that is negatively affecting the learners' abilities to learn numerically.

- **(5) Association and integration of the thinking skills** – the study revealed that there is a clear inter-dependent relationship between each of the key learning skills (thinking in words, spatial perception, and thinking in numbers). Learning skill weaknesses in one medium negatively impact on the others and therefore a strategy for improving any one must be a broad based strategy that integrates remedial measures in all thinking and problem solving skills.

- **(6) District advantages/disadvantages** – The study has shown that no District displayed noticeably better or worse performances than the others. This indicates that there appears to be no advantage or disadvantage being experienced by Districts. If there are differences that might be perceived as making a difference in learner performances (such as distance from a metropolitan centre, infrastructural differences, rural or urban location, or any other such difference) this was not exposed in the test results. All Districts showed reliable similarity. This indicates that locale or District differences can therefore be ruled out as a factor that either inhibits or enhances performance.

- **(7) Individual school advantages/disadvantages** - No discernible differences in the individual school performances was shown. The significance of this finding is that the overall findings, with no exceptions, provide a baseline from which to determine applicable interventions. In addition local school conditions can therefore be ruled out as a factor that either inhibits or enhances performance.

- **(8) Gender differences** – the study revealed no significant differences between the performances of girls and boys either in Grade 10 or Grade 12. Gender can therefore be ruled out as a factor that either inhibits or enhances performance.

1.3. Short conclusive remarks

This initial baseline review of learner performances in skill-based thinking and problem solving testing has exposed a disquieting weakness of performance. One might conclude that the education being experienced by the learners in the sample schools has been one of acceptance of instruction and a commitment to memory without developing skills of thinking and problem solving.

The study has collected a rich data bank that profiles each learner and which can be used for comparing the Study performances with later school based performances.

In this way the instrument that has been applied can be tested for reliability and validity as a predictor of school performances in subjects in the FET band.

2. THE EVALUATION METHODOLOGY

2.1. The background and context in relation to this particular study

Matriculation results in the Eastern Cape Province have been disappointing annually for the past decade with the Province consistently languishing at or near the bottom of the national final year performance lists.

The pattern or trend has persisted despite the Department's remedial efforts with such projects such as the Matriculation Intervention Programme (MIP) which to date has focused all its energies into the final year of schooling – Grade 12.

Since this report is the first stage of a broader process certain assumptions are recorded here. Three key assumptions emerging from this particular study are :

i. **identify preparedness benchmarks** - it is necessary through the design of appropriate instruments to identify through study what are the learning skill weaknesses at the start of Grade 10 and at the start of Grade 12;

ii. **three year intervention** - remediation should be introduced at the start of Grade 10 and continue through the three years of Further Education and Training (FET); and

iii. **cultivate effective learning skills** - remediation should concentrate on developing generic learning skills and not only focus on subject-content driven extra tuition.

2.1.1. Purpose of the study

With an overall aim of improving learning and assessment results in the FET band of Education in Eastern Cape Schools to design, develop and administer performance measurement instruments:

- that evaluate learner readiness or preparedness at the start of Grade 10 and the start of Grade 12 by identifying learning skill weaknesses;
- to measure and compare the results with later performances in school based assessment with the aim of gauging the value of the instrument as a predictor for later successful learning; and
- that serve the purpose of identifying weaknesses in learning skills for later effective remedial interventions based on generic skills.

The rationale or premise underpinning the study is that readiness or preparedness is skills driven and not a content driven process and this requires generic evaluation and interventions that are not knowledge or subject specific.

2.1.2. Literary Search/ Reference

- Cohen, A.D., (1994) *Assessing language ability in the Classroom*, Boston: Heinle & Heinle Publishers
- Davis, P., and Rinvolucri, M. (1988) *New methods, new possibilities,* Cambridge: Cambridge University Press
- Gibbons, P. (1991) *Learning to learn in a Second Language,* Newtown, NSW, Australia: primary English Teaching Association.
- Grabe, W., and Stoller, F.L. (in press) *Teaching and studying reading,* New York: Addiston Wesley, Longman.
- Raatz, U. and Klein-Braley, C. (1981) The C-Test – a modification of the cloze procedure in Culhane, T., Klein-Braley, C. and Stevenson, D.K. editors, *Practice and problems in language testing*
- Samuels, S.J., Schermer, N., and Reinking, D. (1992) Reading fluency: techniques for making decoding automatic. In S.J. Samuels and A.E. Farstrup editors, *What study has to say about reading instruction (2nd Edition).* Newark, DE: International Reading Association.

2.2. Procedures used in this study

This section reports on how the Study Team undertook its task of collecting evidence.

A key to the approach adopted was to design instruments that would investigate "thinking skills"[1]

Perhaps most importantly in today's information age, thinking skills are viewed as crucial for educated people to cope with a rapidly changing world. Many educators believe that specific knowledge will not be as important to tomorrow's workers and citizens as the ability to learn and make sense of new information.

Teaching children to become effective thinkers is increasingly recognised as an immediate goal of education if students are to function successfully in a highly technical society, then they must be equipped with lifelong learning and thinking skills necessary to acquire and process information in an ever-changing world.

Many educators believe that specific knowledge will not be as important to tomorrow's workers and citizens as the ability to learn and therefore teaching children to become effective thinkers is increasingly recognised as an immediate goal of education.

The following words with there meanings are used through the report :

[1] This summary is based on a review of 56 documents of which 22 are research studies or evaluations.

Words	Meaning
Thinking	This is a mental reasoning process which can be classified in a hierarchy according to levels of difficulty of the thinking task (usually set as a problem to solve)
Problem solving	This involves four key skills – (1) finding out what the problem is; (2) choosing an appropriate strategy; (3) working and solving the problem; and (4) reflection to check that the solution is reasonable.
Proficiency	Capability, aptitude or expertise to perform the task set in the medium set.
Learning	Is the process of developing thinking and problem solving skills (i.e. developing proficiency). Learning is acquiring knowledge or developing the ability to perform new behaviours. It is closely related to memory which is a storage in the brain.

2.2.1. Methods employed [2]

The method employed was a simple and straightforward testing of a large cohort of learners at Grade 10 and Grade 12 of structured tests. The testing required one session of 80 minutes made up in the following manner:

TEST	TIME
A. Thinking in words 1. Reading fluency test 2. Comprehension check 3. C-Test (articulacy) 4. Summarising	30 minutes
B. Thinking in words and shapes 5. Graphic organiser	10 minutes
C. Thinking in shapes 6. Cartoon analysis	10 minutes
D. Thinking in shapes and numbers 7. Patterns	10 minutes
E. Thinking in numbers 8. Numbers	10 minutes
F. Thinking in numbers and words 9. Word problems	10 minutes

[2] See **Attachment 6.11 Grade 10-12 Advocacy Note**

Tests were written on special answer sheets and facilitated by a Study Team member. An important adjunct is that instruction and clarity (by answering questions) were conducted in the home language of all students (Xhosa in the majority of the schools).

2.2.2. Design of instruments[3]

The purpose of this section is to provide some background information on the techniques and procedures used in the assessment instruments that have been included as items in the evaluation study.

The steps in the instrument design process were:

(1) Initial investigation or researching was extremely limited by time constraints but this was undertaken so as to underpin the design with tested means;

(2) The draft instruments and motivations were submitted for approval to Department of Education officials in a specially constructed Focus Group which was Chaired by a Director in the Department.

(3) In addition the instruments were appraised by the Directorate of Quality Assurance

Nine tests were designed to assess skills within three broad parameters:

(a) Thinking and problem solving in **words**	Test 1	Word speed
	Test 2	Comprehension
	Test 3	C-Test (articulacy)
	Test 4	Summary
Thinking and solving problems in words using space	Test 5	Graphic organiser
(b) Thinking and problem solving in **space** or shapes	Test 6	Cartoon
Thinking and solving problems in space using numbers	Test 7	Patterns
(c) Thinking and problem solving in **numbers**	Test 8	Numeracy
Thinking and solving problems in numbers using words	Test 9	Word problems

It is considered that each of the three key thinking-skill benchmarks *words, shapes,* and *numbers* is influenced by proficiency in the other two skills and so "*in-between*' tests were designed so as to assess the extent to which weakness in one skill affects other skills. For example, the premise is that the effective solving of a number problem is directly enhanced or hampered by ability in language and/or spatial competence.

Word thinking

The first thinking skills assess proficiency in language. The assessment of a learner's language abilities is something on which teachers spend a fair amount of class time in one way or another. In the best of all possible worlds such assessment is valuable for both the teachers and the learners. The assessment tasks set are non-threatening and are developmental in nature, allowing the learners ample opportunities to demonstrate

[3] See **Attachment 6.2. Structure of the Instrument for measuring readiness/preparedness of learners at the start of Grade 10 and Grade 12**

what they know and do not know, and they provide useful feedback.

Test 1 Word speed

Fluency development is one of the most neglected aspects of reading instruction even though study strongly argues that fluency is one of the central foundations for efficient reading. Fluency involves rapid and automatic word recognition, the ability to recognise basic grammatical information, and the rapid combination of word meanings and structural information to create larger meaning units.

The activity employed in this evaluation study so as to assess reading rate was a timed reading of a passage.

In the design of this test from the very outset a lot of emphasis was placed on it being the linchpin of all other skills which to a greater or lesser extent depend upon language fluency

Test 2 – Comprehension test

It was considered that there is no value to be gained from measuring word reading speed if there is no concomitant understanding or comprehension of what the words mean.

For the factor of word reading speed to have significance or validity it is essential that performances in the one must be linked and compared with the other.

The design of the comprehension test employed multiple-choice options. Multiple-choice items are often favoured because their scoring can be reliable, rapid and economical. The basic format is simply one of selecting one of four options. There are warnings in the literature regarding the pitfalls of using such items, primarily because of the difficulties associated with the construction of good multiple-choice items.

Even though the list of weaknesses associated with the multiple-choice format may be long, it was considered that there was a place for such items of this test as they were a product of adequate quality development.

Test 3 – C-Test

Study informs us that the C-test is an alternative to a cloze test[4]. In a typical test (C-test) the second half of every other word is deleted, leaving the first and the last sentence of the passage intact. A clue, (half the word) serves as a stimulus for the respondents to find the other half. It appears that the C-test may well be a more reliable and valid means of assessing what the cloze test assesses. The cloze test is extensively used as a completion measure, ideally aimed at tapping reading skills interactively, with respondents using cues from the text in a bottom-up fashion as well as bringing their background knowledge to bear on the task.

Assumptions made about the test as a measure of second-language ability include the following (Klem-Braley, 1981):

[4] A cloze test is an exercise of supplying a word that has been omitted from a passage as a test of readability or comprehension.

- It is an integrative measure of discourse.
- It is easy to construct.
- The starting point can vary.
- The choice of text is not a key issue.
- It ranks examinees in a consistent manner.
- It is highly reliable and valid.

In addition, because half the word is given, students who do not understand the macro-context may still be able to mobilise their vocabulary skills adequately to fill in the appropriate discourse connector without indulging in higher-level processing.

The design of the test used in this study attempted to use the principles of the C-test which probe "vocabulary skills as a discourse connector" and proximated this with a C-test that required the learner to articulate answers (as opposed to choosing from a multiple-choice selection) and thereby demonstrate their vocabulary skills.

Test 4 – Summary

According to Bloom's Taxonomy there is more than one type of learning within three categories or 'domains'. Within the cognitive or mental skills category the most elementary skill is '*recall*' while '*comprehension*' is a 'higher order' or higher degree of difficulty skill. This level requires an understanding of meaning and explanation "…in one's own words". '*Summarise*' is a key word or question cue as is "*re-write*".

The design of this test therefore had in mind assessing higher order thinking using the medium of words. It aimed to assess understanding or grasping of meaning of informational materials

Test 5 – Using a graphic organiser

The task of transferring information from a text to a graphic organiser or visual representation of the information provides insights into a learner's ability to identify key information from a text and to see the relationships among ideas presented in the text or a portion of a text. This visual representation serves as an 'information package', presenting information in a graphical rather than a verbal form, which, as well as being a *summary* of a 'piece of information' also shows the structure of the information.

Spatial thinking

Test 6 – Cartoon analysis

A cartoon tells a story in picture form and requires a graphic discernment

The cartoon chosen was clearly an African scene so that learners would easily recognise experientially the component parts and its message was a simple one.

In the design of this test only two questions were set :

- The first question asked for a *title* – a specific skill of being able to perceive the overall message being conveyed; and

- The second question asked for the detail or unpacking of the message.

Test 7 – Thinking in shapes, dimensions and numbers

Numbers and patterns reveal a logical framework for thinking and problem solving.

The use of both visual and number skills used to make up the major part of IQ Testing of the past.

In the design of this test the planning team drew from personal experience of designing entrance tests for a Senior College[5] which were successfully used both in selection as a prediction instrument for later performance.

Number thinking

Test 8 – Numeracy

The assignment here was to design a test which was sufficiently generic as to test elementary number-thinking skills and not test mathematical proficiency since the tasks all have to be non subject specific.

The design of this test incorporated in the main a completion of series with thinking or logical deduction using numbers and problem solving of fractions of numbers

Test 9 – Number problems using words

This extension of number logic by disguising it in wording as '*word problems*' was intended to assess both number and word skills in combination.

See **Attachment 6.3. Grade 10 Performance Assessment Instrument and**

Attachment 6.4. Grade 12 Performance Assessment Instrument

Attachment 6.5. Grade 10 Performance Assessment Instrument – Answer Sheet

Attachment 6.6. Grade 12 Performance Assessment Instrument - Answer Sheet

2.2.3. Scope of study - sample studied

The sample was pre-determined from three districts

- Grahamstown
- East London and
- Libode

[5] All Saints Senior College drew its students nation-wide by using a three-part entrance testing scheme – (1) literacy; (2) graphicacy; and (3) numeracy.
The tests that were designed became statistically significant predictors for later performances between Grades 10 and Grade 12. Two Universities asked to use the same tests

The following table presents the sample details:

DISTRICT	SCHOOL	GRADE 10		GRADE 12		TOTALS
		Number of Learners	Totals	Number of learners	Totals	
Grahamstown	TEM Mrwetyana	36	122	31	103	**225**
	Mary Waters	60		51		
	Hendrik Kanise	26		21		
East London	Kusile	56	131	43	71	**202**
	Sikhulule	38		12		
	Silimela	37		16		
Libode	St. Patricks	29	124	59	120	**244**
	Mtweni	42		31		
	Port St. Johns	53		30		
GRAND TOTALS		**377**		**294**		**671**

2.2.4. Data collection, process and methods

All the data collected in this study was in the form of test responses.

2.2.5. Data analysis and reporting process

- **Background and context**

  All data was gathered by questionnaire and testing in a single classroom visit that lasted just over an hour and a half.

  Since the results being sought were performance based there was no need to hold interviews.

  It was an assessment exercise which did not require an evaluative response from the participants.

- **Partnerships**

  For this particular study the Study team relied upon:

  IBS to co-ordinate the study, to conduct an advocacy roll-out; and to prepare the necessary logistics for school visits.

  The School Principals and individually chosen teachers cooperated by allowing the time and space for the studies to be conducted and assisted by maintaining

discipline by their presence during the testing sessions.

- **Key area/Baseline indicators/Topics**

  The key area of investigation was to collect performance evidence of the learners' abilities to use thinking skills in problem solving.

- **Information coding**

  The initial handwritten and recorded responses on specially designed answer booklets were captured electronically in Excel sheets.

  These were then colour coded to identify and classify performances within four parameters (the quartiles were defined)[6] :

Colour	Performance result	Classification category
Orange	<25%	Emerging
Yellow	26 – 50%	Developing
Blue	51 – 75%	Accomplished
Green	76 – 100%	Exemplary

  Where performances were below 50% it was considered that these participants were underperforming and need some support or assistance and in the charts this was recorded as "needing help"

  Summary sheets with raw scores for each category were then prepared and these were translated into percentages so as to allow for comparisons.

  The tables are included in the report as **Attachment 6.9** and **Attachment 6.10**

  Charts were then prepared for the various patterns that emerged.

- **Report finalisation process**

  The information was then carefully analysed, synthesised and recorded in report form.

2.2.6. Constraints/limitations of this study

This Report represents an initial stage of a larger investigation. The evidence uncovered points to a need for individual learner profile follow-ups and analyses so as to identify the relationship between thinking skills performances and school based subject content based performances.

It is the contention of the Study team that there will be a very important and clear link and that the significance of this is that it will pave the way for integrative skills-based interventions.

Clearly this Report is limited to a study which has been initiated and needs to be revisited and extended

[6] Since some items had four questions achieving 1 correct out of 4 placed the person who had achieved 25% into the bottom quartile

3. REPORT ON FINDINGS

3.1. Guiding principles

This study has investigated the abilities of a large cohort of learners selected from a variety of school locales and communities – rural, farm school, informal settlement, township, urban, former-Transkeian, former-Ciskeian, former-South African so as to probe and identify any significant differences.

The design of the tests specifically focused on generic thinking skills and not on content knowledge development. It separated out three key thinking skills and then established interconnections through combinations.

Testing **thinking in word** skills attempted to get the learners to work through a range of worded problems so as to find out whether there is effective and adequate thinking by means of words. These were not to be tests of language flaws or language strong points.

Spatial perception or shapes as a problem solving method also provides pointers on the level of thinking skill since an ability to "picture" the problem is an essential skill that goes hand-in-hand with word-thinking and number-thinking when faced with attempting to solve problems.

Testing number skills attempted to get the learners to work through problems using numbers in their minds and not to focus on mathematics proficiency. This was so as to find out whether there is effective and adequate thinking by means of number logic.

3.2. Findings

3.2.1. The reading 'fluency' test invalidated – Performances for both Grade 10 and Grade 12 on this test were very different from performances in <u>all</u> the other tests which showed a consistent pattern. Two reasons for this could be forwarded:
(1) the learners have good reading skills and read "fluently"; or
(2) the test design was too easy.
Since the test design was based in tertiary study the conclusion one must reach is that reading skills are good and learners at both Grade 10 and Grade 12 do not need any remedial intervention.

It must be noted that teachers rely on reading as a teaching strategy and at all the schools visited in this study teachers regularly required a learner to 'read' whilst the rest of the class followed the text passively.

The problem is that there is no educational value in reading words (or numbers) rapidly if they hold no meaning.

For this reason the word reading speed test was considered to have no validity as a predictor of learner readiness at either Grade 10 or Grade 12 levels for two key reasons:

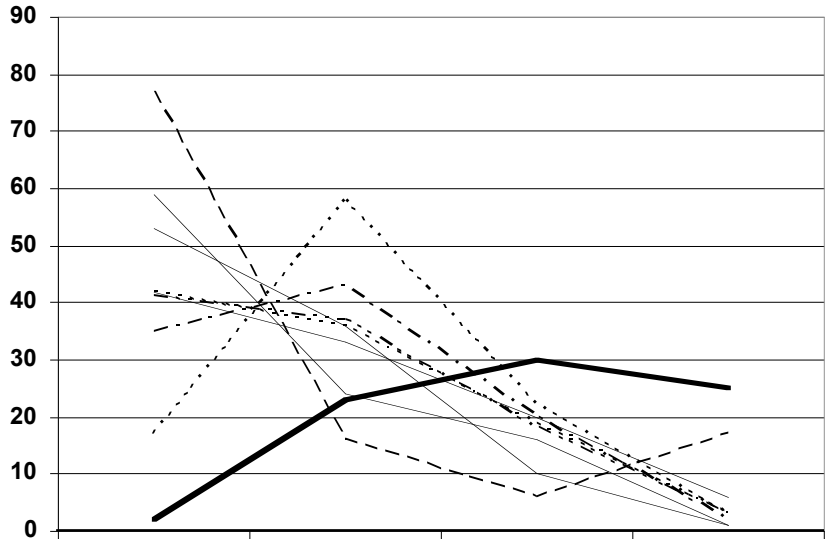
(1) the performances in this test were clearly anomalous with all other testing and therefore the results could not be linked to the other performances; and

(2) comparing the word speed results with the comprehension test results showed clearly that reading speed was not matched with comprehension of the same passage

The four charts that follow emphasise the incongruency between the reading speed test and **all** other tests:

COMPARING GRADE 10 PERFORMANCES ON ALL TESTS

The "word speed" line is darkened as it shows the opposite trend to all the other tests



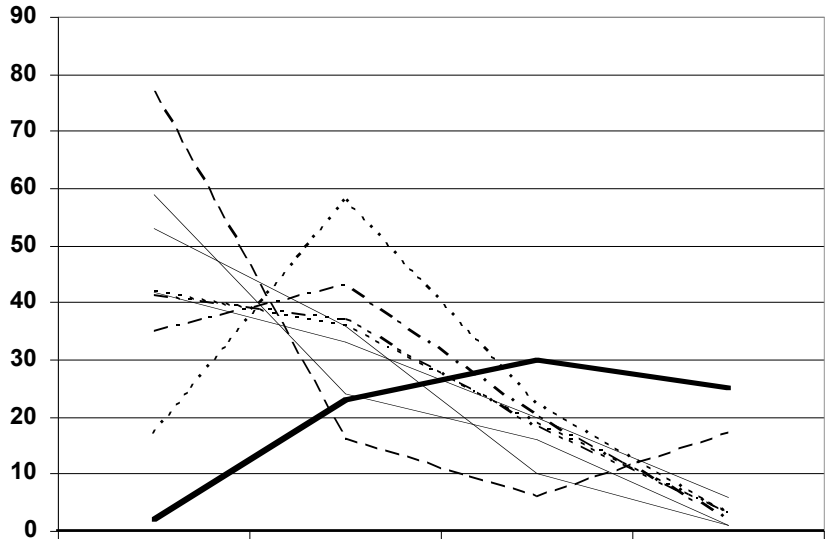
	Emerging	Developing	Accomplished	Exemplary
Word speed	2	23	30	25
Comprehension	41	37	18	3
C-Test	42	36	19	3
Summary	35	43	20	2
Graph. Org.	59	24	16	1
Cartoon	42	33	20	6
Patterns	53	36	10	1
Numeracy	17	58	22	3
Word Problems	77	16	6	17

NOTE:

1. **Emerging** – where learners achieved <25% in that test only 4% of the learners were in this category for the word speed test compared with the range from 34% to 76% for all the other tests.
2. **Exemplary** – at the other end of the scale, where learners recorded more than 75%, in the word speed test over a third of all the learners achieved this distinction compared with the range from 0% to 74% in all the other tests

COMPARING GRADE 12 PERFORMANCES ON ALL TESTS

The "word speed" line is darkened as it shows the opposite trend to all the other tests

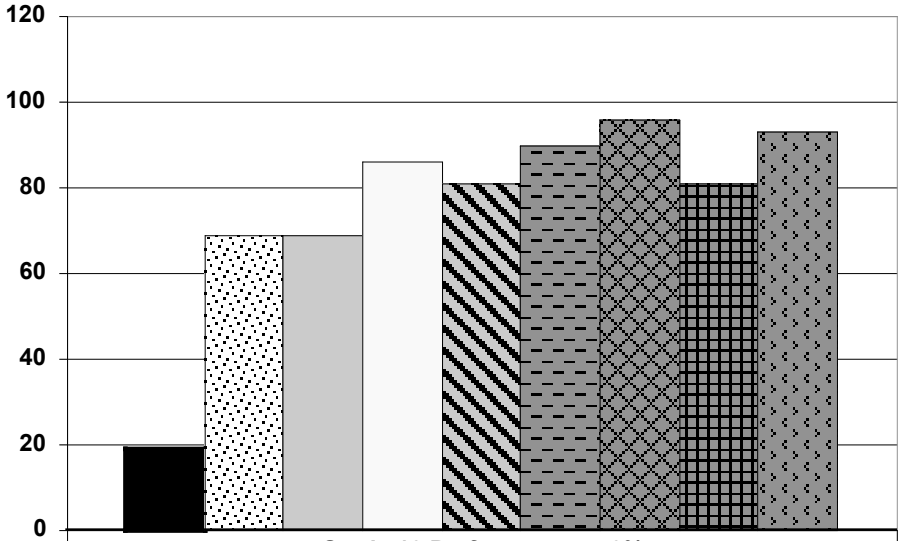


	Emerging	Developing	Accomplished	Exemplary
Word speed	2	23	30	25
Comprehension	41	37	18	3
C-Test	42	36	19	3
Summary	35	43	20	2
Graph. Org.	59	24	16	1
Cartoon	42	33	20	6
Patterns	53	36	10	1
Numeracy	17	58	22	3
Word Problems	77	16	6	17

Exactly the same trends are shown in the Grade 12 performances as were realised by the Grade 10 learners.

COMPARING GRADE 10 PERFORMANCES ON ALL TESTS

The "word speed" line is darkened as it shows the opposite trend to all the other tests



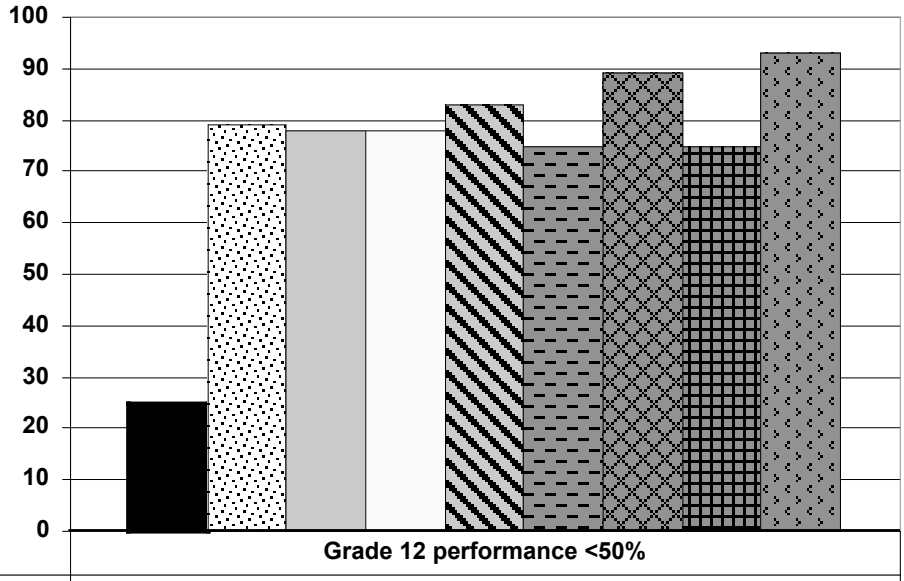
	Grade 10 Performance <50%
Word speed	19
Comprehension	69
C-Test	69
Summary	86
Graph. Org.	81
Cartoon	90
Patterns	96
Numeracy	81
Word Problems	93

Note:

- To emphasise this point two categories (emerging and developing), where learners achieved less than 50%, were combined to make the category *Needing help*; and the two categories (accomplished and exemplary), where the learners achieved more than 50%, were combined to make the category *Not needing help.*
- In Grade 10 for all tests (except reading speed) the performances showed a need for assistance ranging between 68,1% to 96,1% of the learners with only between 31,% and 3,9% not needing assistance.
- Word speed results imply that 80,6% of learners do not need help.

COMPARING GRADE 12 PERFORMANCES ON ALL TESTS

The "word speed" line is darkened as it shows the opposite trend to all the other tests



	Grade 12 performance <50%
Word speed	25
Comprehension	79
C-Test	78
Summary	78
Graph. Org.	83
Cartoon	75
Patterns	89
Numeracy	75
Word Problems	93

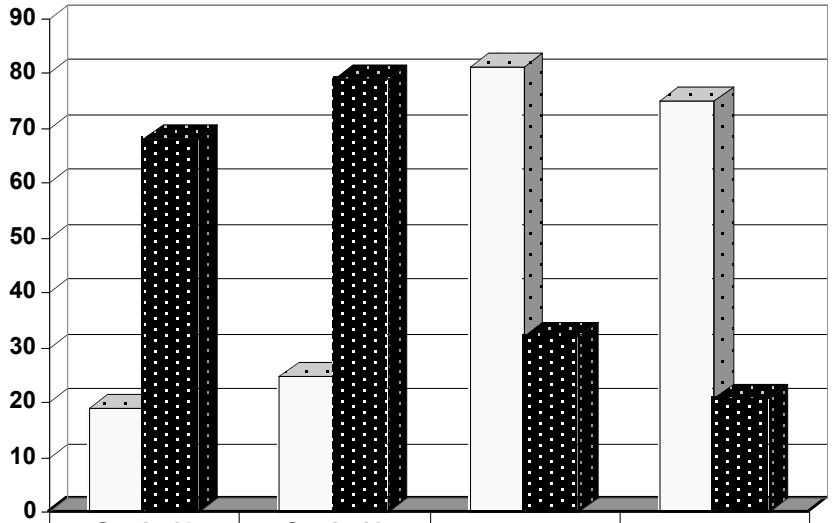
Note:

- Exactly the same pattern is displayed underlining the validity and reliability of the finding.
- Even at Grade 12 the reading word speed proficiency is not matched in any other of the tests

A second benchmark to assess the reliability of this finding achieved by comparing the performances between the word reading speed test and the comprehension test and this is displayed in the two charts that follow:

ASSESSING THE VALIDITY OF THE WORD-SPEED TEST

*The chart shows performances by percentages of learners tested in word speed and comprehension tests (**needing help means that they achieved <50%)***



	Grade 10 needing help	Grade 12 needing help	Grade 10 ready	Grade 12 ready
□ WORD SPEED	19	25	81	75
■ Comprehension	68	79	32	21

NOTES

1. In both Grade 10 and Grade 12 word speed and comprehension trends are discordant with each other.
2. For the reading word speed test to have validity there should be a matching skill in comprehension (there is no value in reading words fast if they do not hold meaning)
3. Reading fluency would be a valid benchmark if there was some congruency of the results but clearly a disparity of 49% in Grade 10 and of 54% in Grade 12 makes the word speed test of very little applicable value.

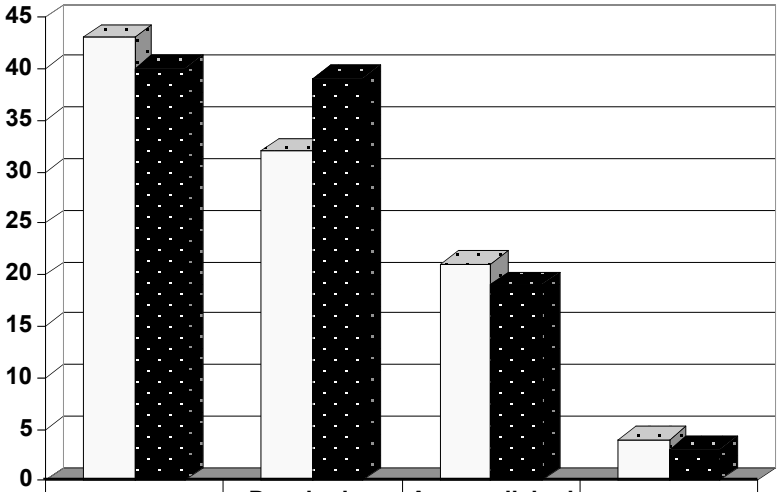
The only conclusion one can draw from this is that learner reading speed is deceptive as an indicator of preparedness both at Grade 10 and Grade 12

3.2.2. Unpreparedness demonstrated by poor performances at both Grade 10 and Grade 12 – The tests showed up an overwhelming weakness in terms of skills development in all three of the key skills tested and therefore this provides very clear pointers for a need to implement remedial interventions that are **skills driven** and not content driven

The charts that follow stress the unpreparedness or unreadiness of the learners tested in terms of their thinking and problem solving skills in all of the tests that were administered:

ANALYSIS OF WORD-SKILLS [GRADE 10 & GRADE 12]

*The chart shows performances by percentages of learners tested in **word** tests (C-Test; comprehension; and summary)*



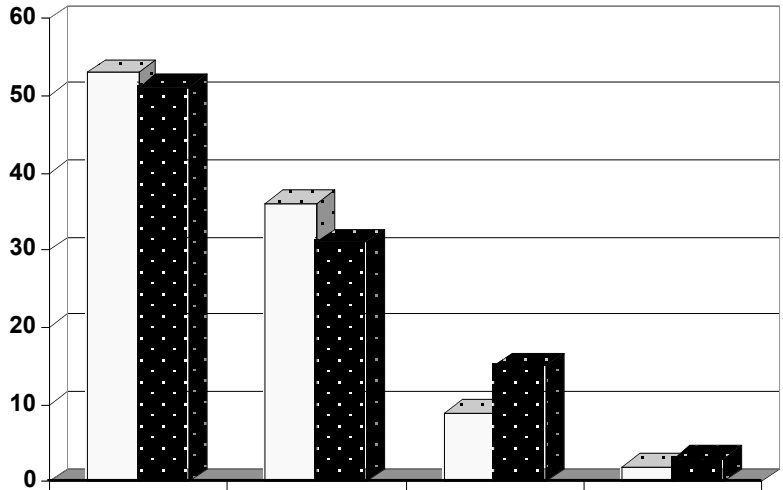
	Emerging achieved <25%	Developing achieved 25-50%	Accomplished achieved 50-75%	Exemplary achieved +75%
□ Grade 10	43	32	21	4
■ Grade 12	40	39	19	3

NOTES

1. Thinking and problem solving in **words** for both Grade 10 and Grade 12 are below accepted readiness indicators.
2. The "accepted readiness" benchmark used in this study is a 50% result in any of the tests that were applied.
3. Learners achieving below 50% are considered to be unready and needing remedial intervention to meet the challenges of the Grade ahead.
4. In Grade 10 – 74% of respondents need remedial assistance and only 26% can be considered as ready
5. In Grade 12 – 78% need remedial assistance and only 22% can be considered as ready
6. The anomaly here is that thinking and problem solving in **Words** has worsened (one would expect Grade 12 to show noticeable improvement but the results show the opposite)

ANALYSIS OF SPATIAL SKILLS [GRADE10 & GRADE 12]

*The chart shows performances by percentages of learners **spatial** perception tests (graphic organiser; cartoon; and patterns tests)*



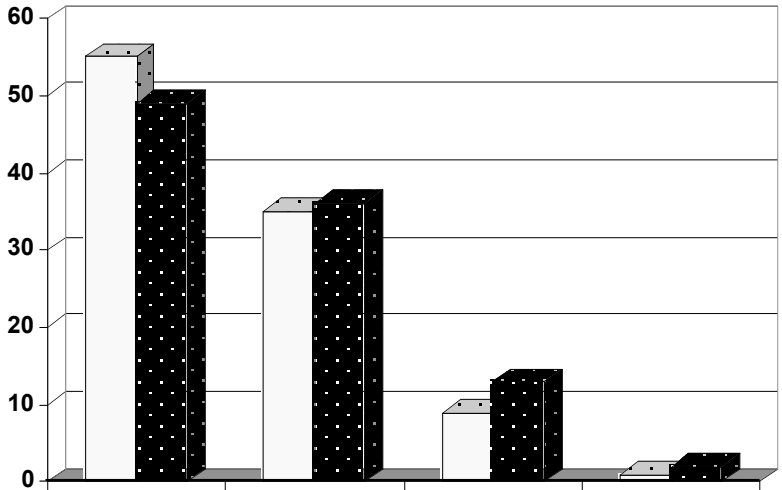
	Emerging achieved <25%	Developing achieved 25-50%	Accomplished achieved 50-75%	Exemplary achieved +75%
□ Grade 10	53	36	9	2
■ Grade 12	51	31	15	3

NOTES

1. Thinking and problem solving in **spatial dimensions** for both Grade 10 and Grade 12 are below accepted readiness indicators.
2. The "accepted readiness" benchmark used in this study is a 50% result in any of the tests that were applied.
3. Learners achieving below 50% are considered to be unready and needing remedial intervention to meet the challenges of the Grade ahead.
4. In Grade 10 – 90% of respondents need remedial assistance and only 10% can be considered as ready
5. In Grade 12 – 75% need remedial assistance and only 25% can be considered as ready
6. There is improvement in the order of 15% from Grade 10 to Grade 12 and this is a positive result.

ANALYSIS OF NUMBER SKILLS [GRADE10 & GRADE 12]

*The chart shows performances by percentages of learners tested **number** tests (patterns; numeracy and word problems)*



	Emerging achieved <25%	Developing achieved 25-50%	Accomplshed achieved 50-75%	Exemplary achieved +75%
□ Grade 10	55	35	9	1
■ Grade 12	49	36	13	2

NOTES

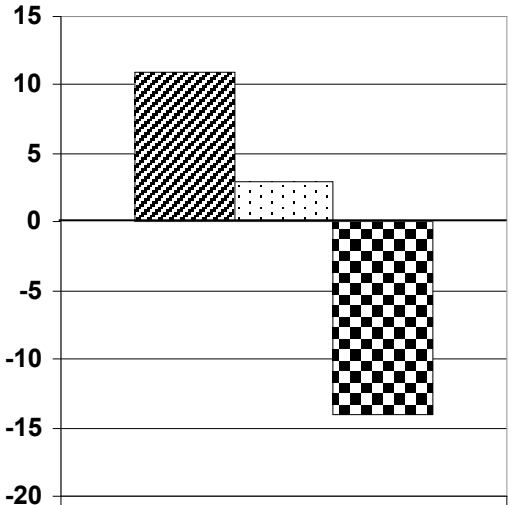
1. Thinking and problem solving in **numbers** for both Grade 10 and Grade 12 are below accepted readiness indicators.
2. The "accepted readiness" benchmark used in this study is a 50% result in any of the tests that were applied.
3. Learners achieving below 50% are considered to be unready and needing remedial intervention to meet the challenges of the Grade ahead.
4. In Grade 10 – 81% of respondents need remedial assistance and only 19% can be considered as ready
5. In Grade 12 – 75% need remedial assistance and only 25% can be considered as ready
6. A clear improvement is noted here since only 17% achieved very low scores in Grade 12 compared with the 40% achieving low scores in Grade 10

3.2.3. Improvement and retrogression from Grade 10 to Grade 12 – analysis of the performances indicates some clear pointers in overall difference between Grade 10 and Grade 12 learners

This study does not claim testing equity but the patterns nevertheless are marked

COMPARING THE GRADE 10 & GRADE 12 PERFORMANCES BY SKILLS – GAUGING IMPROVEMENT[7]

The chart shows improvement percentages of learners above the dark middle zero line and deterioration percentages below this line.



	Improvement/retrogression from Grade 10 to Grade 12 by percentage
Words	11
Spatial	3
Numbers	-14

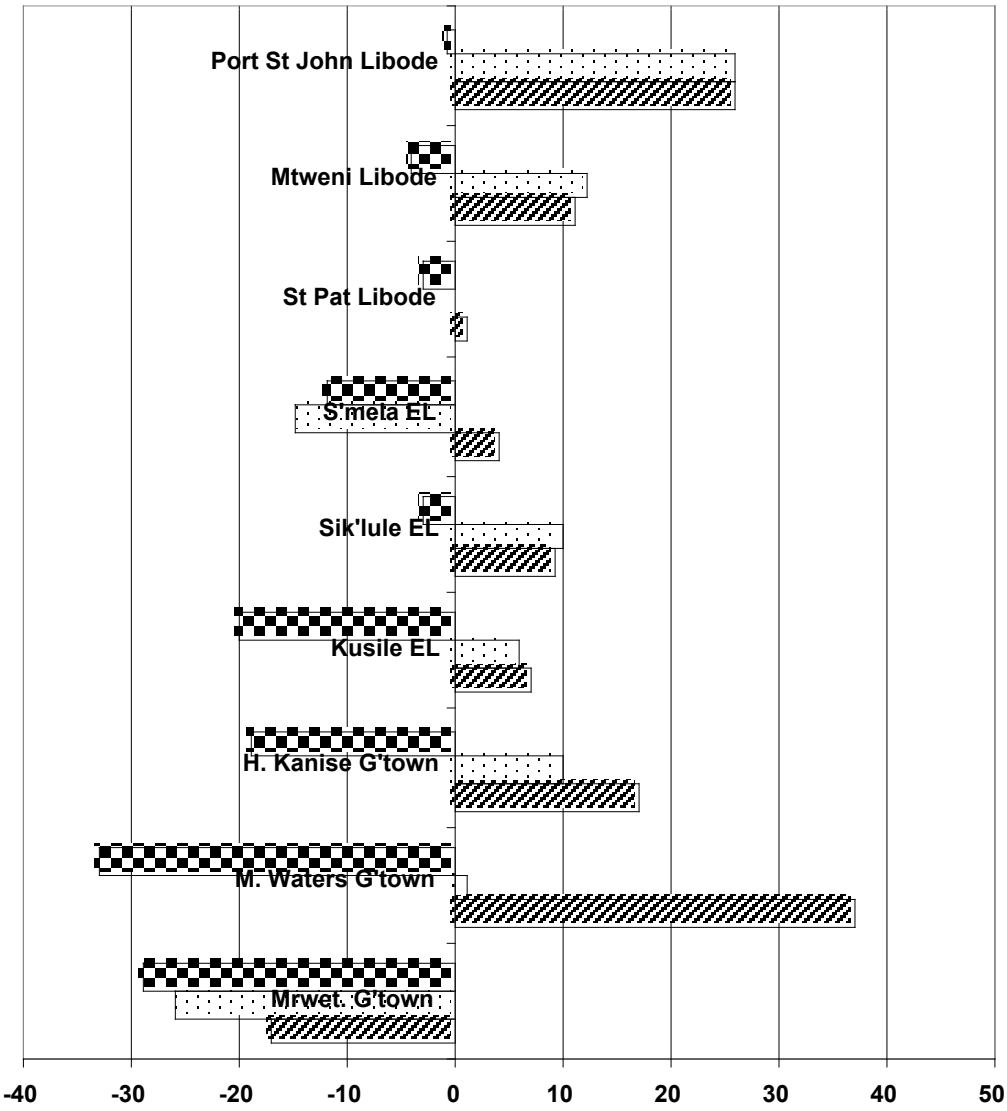
NOTES

1. Thinking and problem solving in **numbers** from Grade 10 to Grade 12 as indicated by performances in the same testing at both grades indicates a significant deterioration of 14%
2. Thinking and problem solving in **words** from Grade 10 to Grade 12 shows and almost equally significant improvement of 11%
3. Thinking and problem solving in **spatial** perception from Grade 10 to Grade 12 indicates a slight improvement of 3%

[7] The comparisons between Grade 10 and Grade 12 are tenuous and the following must be borne in mind when looking for equivalency:
(1) The Grade 10 participants have had an OBE "build up" towards Grade 10
(2) The Grade 12 participants
(3) The tests for each Grade are not identical
(4) A more meaningful comparison would be between the performances of the Grade 10 cohort in 2004 with the performances of the same participants in the Grade 12 Instrument in 2006
Nevertheless the patterns are so striking that this report refers to these possible cautionary baseline divergence trends for further comparisons later in the evaluation study.

COMPARING THE GRADE 10 & GRADE 12 PERFORMANCES BY SKILLS AND BY SCHOOLS – GAUGING IMPROVEMENT/RETROGRESSION

The chart shows improvement percentages of learners to the right of the middle line and deterioration percentages to the left.

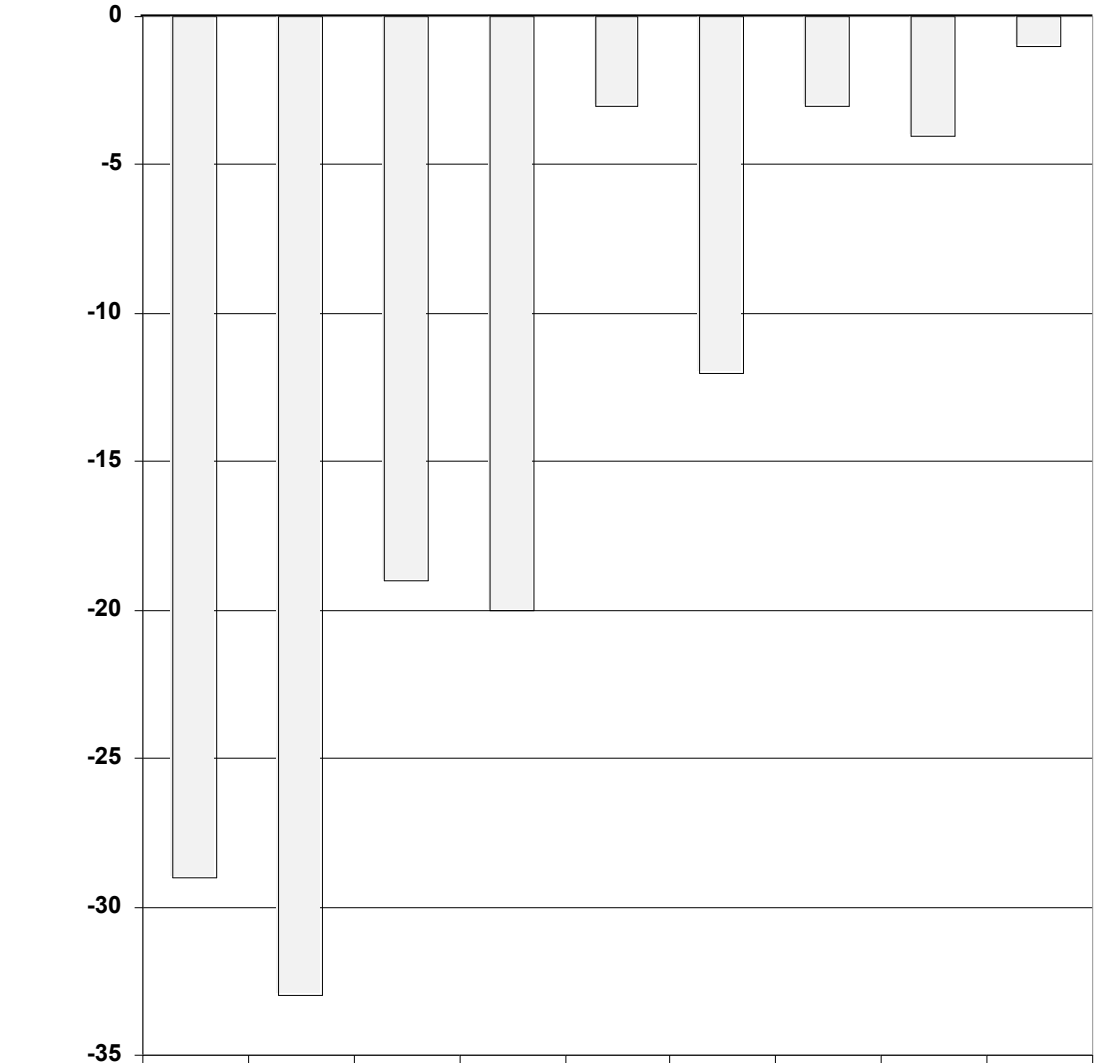


	Mrwet. G'town	M. Waters G'town	H. Kanise G'town	Kusile EL	Sik'lule EL	S'mela EL	St Pat Libode	Mtweni Libode	Port St John Libode
Numbers	-29	-33	-19	-20	-3	-12	-3	-4	-1
Spatial	-26	1	10	6	10	-15	0	12	26
Words	-17	37	17	7	9	4	1	11	26

3.2.4. Deterioration of thinking in number skills

DETERIORATION IN THINKING IN NUMBERS FROM GRADE 10 TO GRADE 12 DISPLAYED IN ALL THE SCHOOLS TESTED

The "word speed" line is darkened and it shows that without exception the learners performed better at the start of the FET compared with the Grade 12



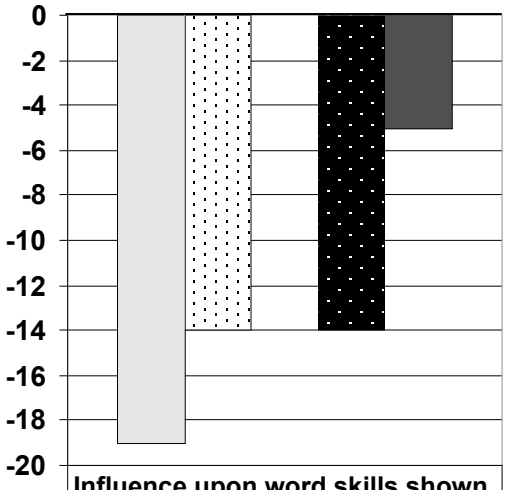
	Mrwet. G'town	M. Waters G'town	H. Kanise G'town	Kusile EL	Sik'lule EL	S'mela EL	St Pat Libode	Mtweni Libode	Port St John Libode
□ Numbers	-29	-33	-19	-20	-3	-12	-3	-4	-1

NOTE:

- Without exception learners performances have deteriorated between Grade 10 and Grade 12
- The inference one can draw from this is that there is some sort of "block" that is negatively affecting the learners' abilities to learn numerically.

3.2.5. Influences of thinking skills upon each other – analysis of the performances by the learners in the sample study shows that the tests that incorporated the associated skills tended to drag down performances in almost all cases. This is clearly demonstrated in the three charts that follow:

ANALYSING THE INFLUENCES ON THINKING IN WORDS BY LINKING OTHER SKILLS

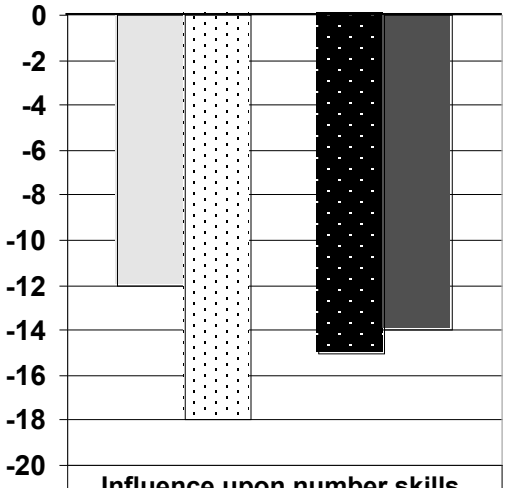


	Influence upon word skills shown by percentages
Numbers Grade 10	-19
Numbers Grade 12	-14
WORDS	0
Space/shape Grade 10	-14
Space/shape Grade 12	-5

NOTES

1. Thinking in words has been "dragged down" by weaknesses in using associated spatial and number skills which were linked by special tests (graphic organiser and word problems)
2. A clear pattern is shown where both number skills and spatial skills have negative effects on word skills in both Grade 10 and Grade 12

ANALYSING THE INFLUENCES ON THINKING IN NUMBERS BY LINKING OTHER ASSOCIATED SKILLS

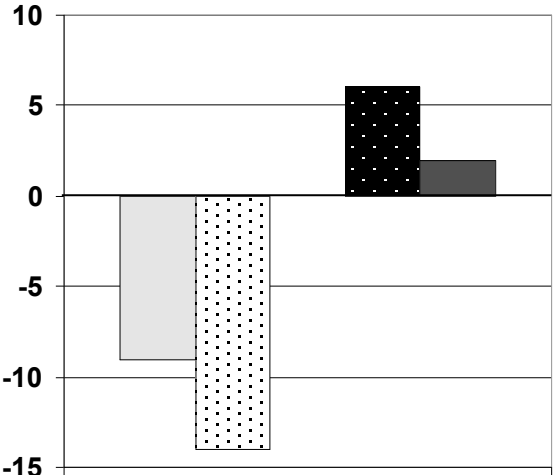


	Influence upon number skills shown by percentages
Words Grade 10	-12
Words Grade 12	-18
NUMBERS	0
Space/shape Grade 10	-15
Space/shape Grade 12	-14

NOTES

1. Thinking in numbers is significantly "dragged down" by weaknesses in using associated spatial and word skills which were linked by special tests (spatial patterns and word problems)
2. A clear pattern is shown where both word skills and spatial skills have negative effects on number skills in both Grade 10 and Grade 12

ANALYSING THE INFLUENCES ON THINKING IN SPACE/SHAPES BY LINKING OTHER ASSOCIATED SKILLS



	Influence upon spatial skills shown by percentages
Numbers Grade 10	-9
Numbers Grade 12	-14
SPACE	0
Words Grade 10	6
Words Grade 12	2

NOTES

1. Thinking in space/shapes is “dragged down” by weaknesses in using associated word which were linked by the number logic patterns special tests.
2. Word skills have a positive effect on spatial skills performances in the graphic organiser test. This is the only exception to the trend shown in all the other associations.

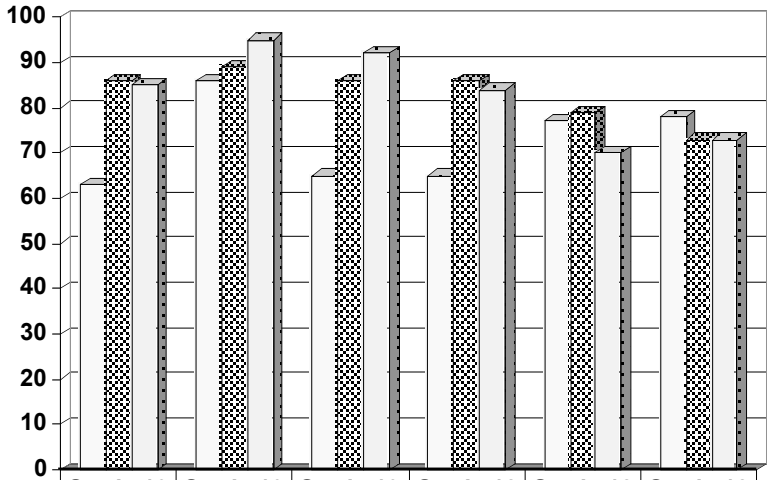
This points to a critical assumption that an integrative approach is needed to remedy weaknesses in any one thinking or problem solving skill. Remediation needs to be implemented on a broad front and not in ‘silo’ fashion.

3.2.6. Examining the differences displayed by different Districts

The performances of each of the three Districts are compared in the charts that follow with the aim of observing any significant differences

COMPARING THE PERFORMANCES BY DISTRICTS

The chart shows percentages of learners tested who need help (achieved <50 in tests)



	Grade 10 words	Grade 10 space	Grade 10 numbers	Grade 12 words	Grade 12 space	Grade 12 numbers
□ Grahamstown	63	86	65	65	77	78
▨ East London	86	89	86	86	79	73
□ Libode	85	95	92	84	70	73

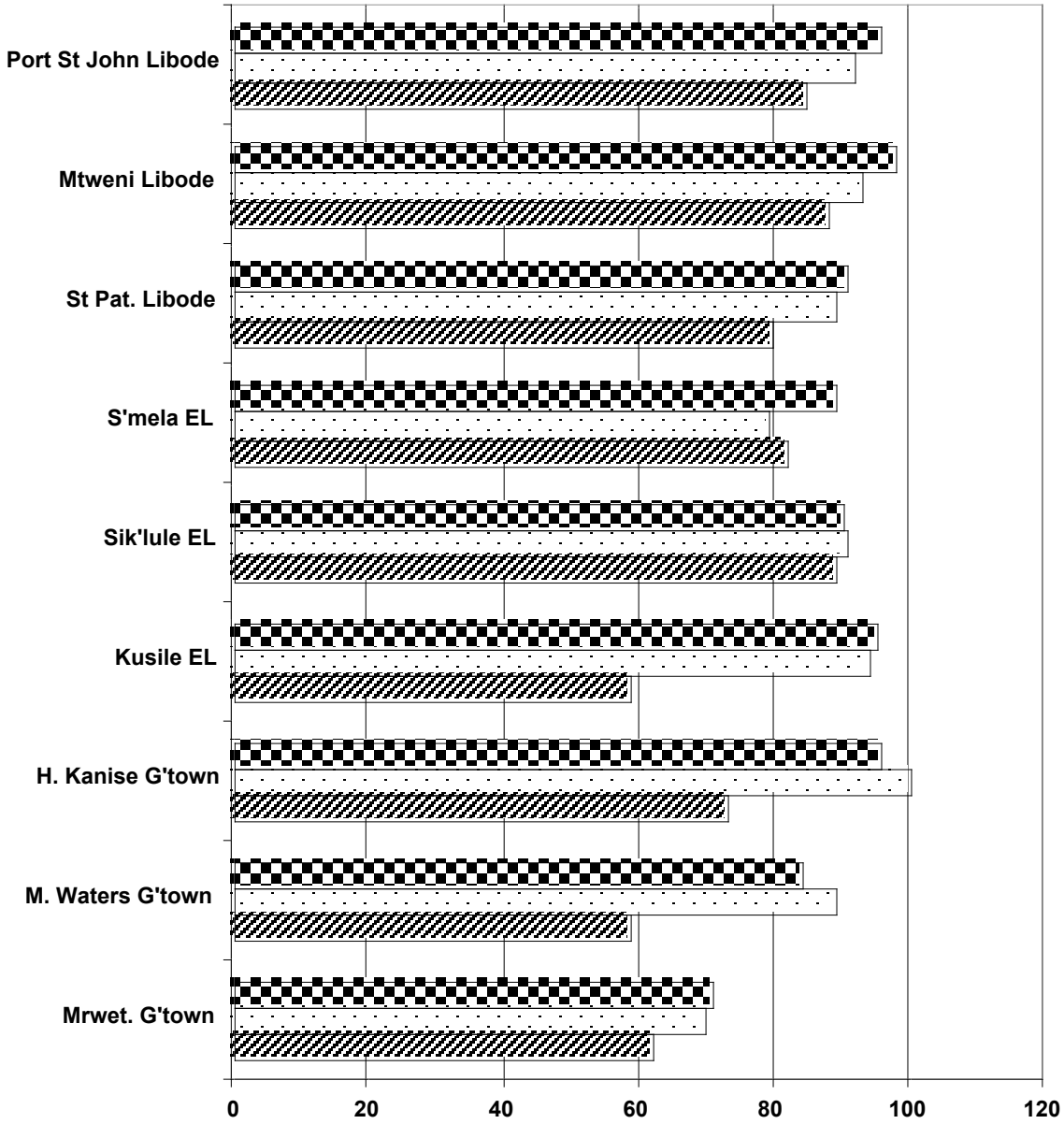
NOTES

1. Learners from all three Districts and in both Grade10 and Grade 12 show alarmingly high percentages that indicate unpreparedness and a need for remedial interventions in all three skills – there is no exception.
2. Better word skills in Grahamstown and a marginally better overall performance in this District appear to be the only noticeable District difference.

3.2.7. Analysis of individual school performances

COMPARING THE GRADE 10 PERFORMANCES BY SCHOOLS

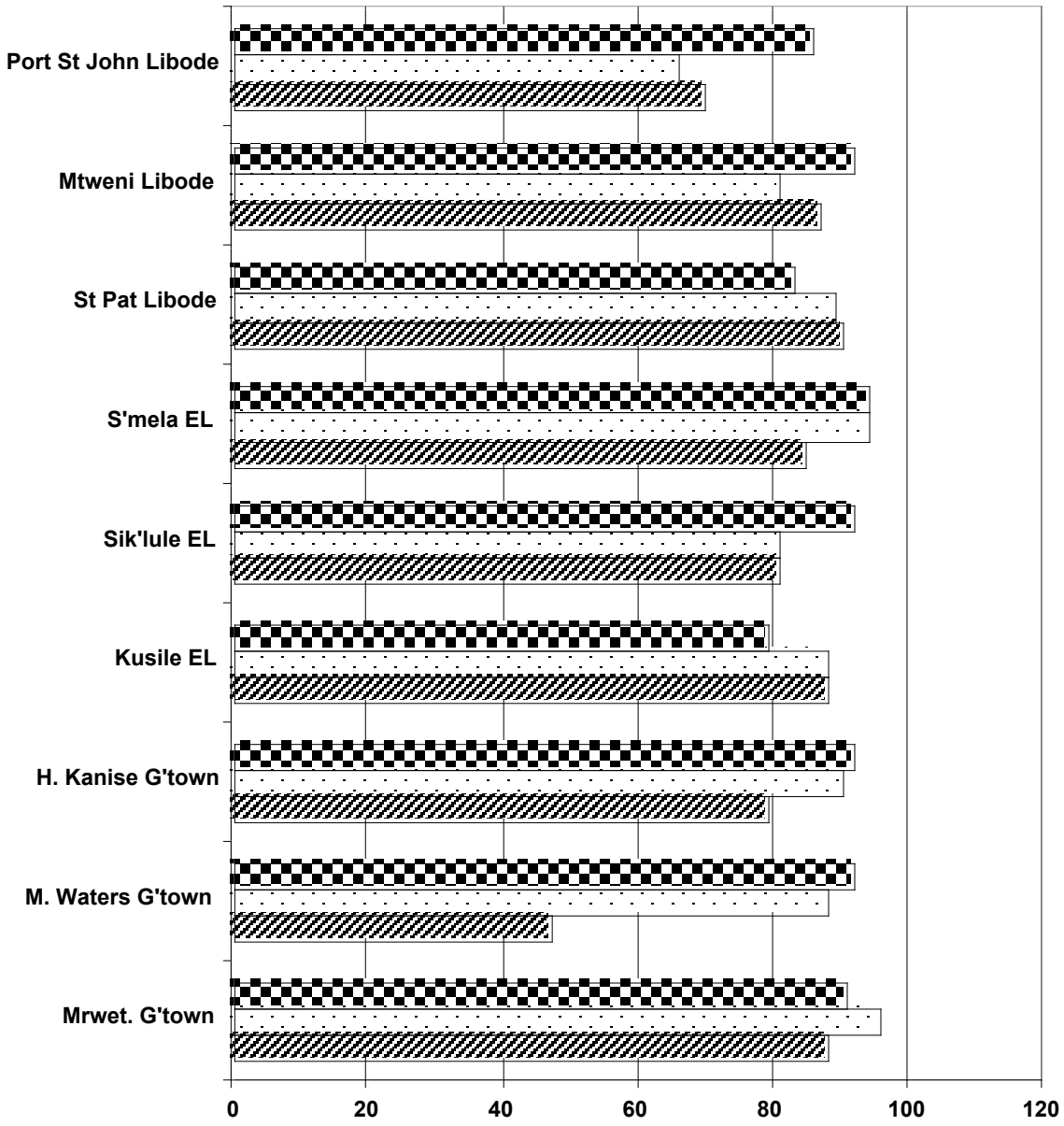
The chart shows percentages of learners tested who need help (achieved <50 in tests)



	Mrwet. G'town	M. Waters G'town	H. Kanise G'town	Kusile EL	Sik'lule EL	S'mela EL	St Pat. Libode	Mtweni Libode	Port St John Libode
Numbers	71	84	96	95	90	89	91	98	96
Spatial	70	89	100	94	91	79	89	93	92
Words	62	59	73	59	89	82	80	88	85

COMPARING THE GRADE 12 PERFORMANCES BY SCHOOLS

The chart shows percentages of learners tested who need help (achieved <50 in tests)



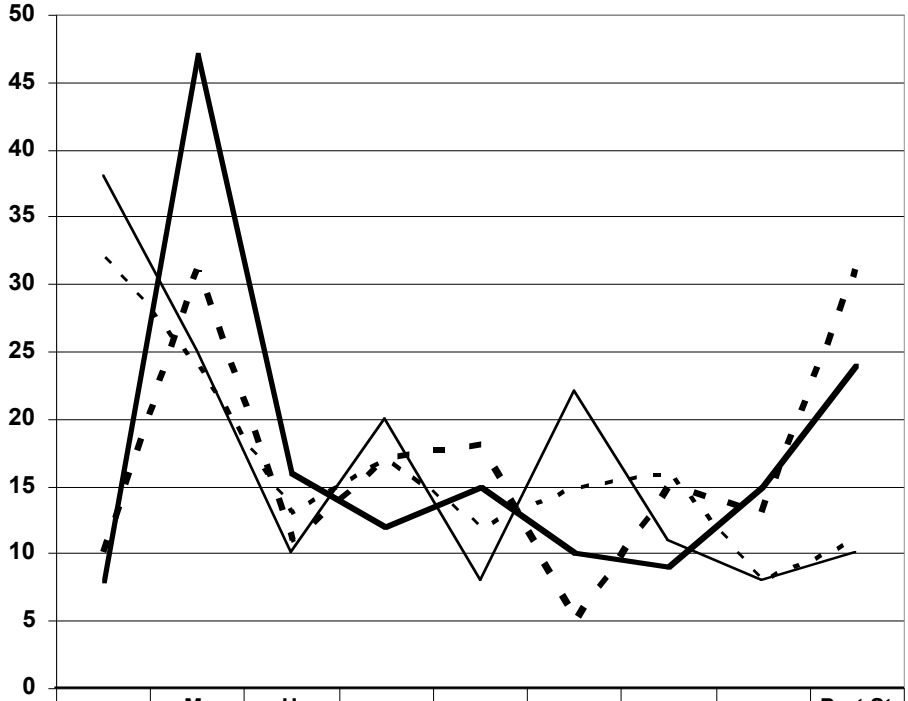
	Mrwet. G'town	M. Waters G'town	H. Kanise G'town	Kusile EL	Sik'lule EL	S'mela EL	St Pat Libode	Mtweni Libode	Port St John Libode
Numbers	91	92	92	79	92	94	83	92	86
Spatial	96	88	90	88	81	94	89	81	66
Words	88	47	79	88	81	85	90	87	70

No discernible difference in the individual school performances is shown.

3.2.8. Analysis of gender performances

CHART COMPARING PERFORMANCES OF GIRLS v BOYS

(Plotted are the combined positive performances of +50% for each)



	Mrwet. G'town	M. Waters G'town	H. Kanise G'town	Kusile EL	Sik'lule EL	S'mela EL	StPatr Libode	Mtweni Libode	Port St John Libode
Girls G10	38	25	10	20	8	22	11	8	10
Boys G10	32	24	13	17	12	15	16	8	11
Girls G12	8	47	16	12	15	10	9	15	24
Boys G12	10	31	11	17	18	5	15	13	31

NOTE

1. The boys do not regularly or noticeably score higher than the girls nor do girls score higher than boys.
2. One might anticipate that the Grade 12 performances should be superior to the Grade 10 performances since thinking skills should mature. This would be manifested by certain lines being consistently and significantly above the others. Clearly this does not happen.
3. The fact that the boys' and girls' graph lines criss-cross so often and so noticeably indicates that there is a certain randomness to the results.
4. This criss-crossing further indicates that there is no noticeable gender superiority or inferiority with any particular learning skill.

4. ISSUES ARISING FROM THIS STUDY

The following issues emanating from this study could be used by decision makers and policy formulators as a starting point for future discussion.

There is a need to:

- **identify preparedness benchmarks** - it is necessary through the design of appropriate instruments to identify through study what are the learning skill weaknesses at the start of Grade 10 and at the start of Grade 12;
- **implement a three year intervention** - remediation should be introduced at the start of Grade 10 and continue through the three years of Further Education and Training (FET); and
- **cultivate effective learning skills** - remediation should concentrate on developing generic learning skills and not only focus on subject-content driven extra tuition.
- **develop learner support material** (LSM) that is focused on developing thinking and problem solving skills to supplement content driven subject materials.
- **problem-solving and thinking** - introduce into the daily subject time-table at schools a formal component that focuses on developing thinking and problem solving skills as an extra subject.
- **follow-up** - of this initial baseline study so as to compare the performances achieved in this testing with later formal school assessment performances so as to evaluate the validity of the instruments designed for this study as predictors of later performances.
- **active learning** – the one key finding that this study study has revealed is that because there is such an emphasis on passive learning in the transmission of subject data from teacher to learner the thinking skills and problem solving skills of learners at the start of the FET band have actually deteriorated towards the end. The indictment that this poses onto our present practice is that we are not developing active learners.

5. CONCLUDING REMARKS

It is the considered view of the Study Team that this study is on the brink of ground-breaking developments. The study has revealed that there is:

1. a validity in identifying thinking-skill aptitudes as a forerunner to meaningful and effective learning performance improvement initiatives;
2. a need to compare individual thinking-skill performances with school subject-based performances in later formal assessment in both Grade 10 (Provincial common task assessments) and Grade 12 (Provincial trial matriculation examinations)
3. a clear relationship between the three key thinking skills – word-thinking, spatial-thinking and number-thinking and that therefore any intervention that attempts to improve one needs to take cognisance of this link and implement an intergative approach.
4. a present alarming fall-off in thinking skills from Grade 10 to Grade 12 which is possibly the result of content-driven rote learning requiring passivity and inhibiting free-thinking and creative-thinking.

If allowed to be expanded this study forms the first steps of a broader study that will undoubtedly pave the way for improved and effective learning performances by learners in the further education an training stage of their schooling

6. ATTACHMENTS

ATTACHMENT 6.1.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

PROFILE OF 20 STUDIES

QUALITATIVE STUDIES				
NO.	**NAME OF STUDY**	**FREQUENCY**	**MAIN SOURCES**	**LOG FRAME OUTPUT**
1	ECDE Strategic trends	Annually	Interviews: Executive Management Strategic Documents	One
2	Integrating the Imbewu II Programme into the DOE	2003 2005 2007	Interviews with Technical Advisors and DOE counterparts Quarterly Reports Video Recordings	One – Four
3	Middle Managers Case Studies : Provincial, District, School and Community	2003 2005 2007	Testimonies Interviews Video Recordings DOE Quarterly and Annual Reports	One Interfaces with Output One to Four
4	District Management	2003 2005 2007	Interview with District Director Resource and Environment Check list Strategic Documentation Video and Photographic evidences	Two
5.	School Management	2003 2005 2007	Interview with Principals Resource and Environment Check list Strategic Documentation Video and Photographic evidences	Two Interfaces with Output 2 – 4
6.	School Community Involvement	2003 2005 2007	Participative workshop with SGB's Video and Photographic evidences	Five Interfaces with Output 2 – 4
7.	Training of Trainers	2003 2005 2007	Questionnaire Interview Observation of Training	Three
QUANTITATIVE AND QUALITATIVE STUDIES				
8 & 9	Throughput rate cohort studies (2)	2003 to 2007 – Grade 1 –7	EMIS Annual Returns Learner interviews Educator interviews	One Interfaces with

	(dropout and repetition)	2004 to 2008 – Grade 8to12	Parent interviews Video and Photographs	Two – Four
10	Contact time	Annually	Quarterly Attendance Statistics from EMIS (Learner and Educator) Year end Promotion Schedule Statistics from Exams Spot checks at school.	One Interfaces with Two to Four
11	Grade 3 Learner Performance	2004 March 2006 March 2008 March	Literacy, Numeracy, Life Skill test, Observation and focus group interview Video and Photographic evidences	Three
12	Grade 3 Educator Performance	2004 March 2006 March 2008 March	Lesson Observation Environment and Resource Check list Interview Video and Photographs	Three
13	Grade 12 Learner Readiness	2004 March 2006 March 2008 March	Literacy, Graphicacy and Numeracy tests Interviews Exam schedule : March	Three
14	Grade 12 Educator Readiness	2004 March 2006 March 2008 March	Lesson Observation Environment and Resource Check list Interview Video and Photographic evidences	Three
15	Grade 6 Learner Performance	2004 Sept. 2006 Sept. 2008 Sept.	Literacy, Graphicacy and Numeracy tests Interviews	Three
16	Grade 6 Educator Performance	2004 Sept. 2006 Sept. 2008 Sept	Lesson Observation Environment and Resource Check list Interview Video and Photographic evidences	Three
17	Grade 9 Learner Performance	2004 Sept. 2006 Sept. 2008 Sept	Literacy, Graphicacy and Numeracy tests Interviews CTA's results	Three
18	Grade 9	2004 Sept.	Lesson Observation	Three

	Educator Performance	2006 Sept. 2008 Sept	Environment and Resource Check list Interview Video and Photographic evidences	
19	Public Perception Survey	2003 2005 2007	Questionnaire Interviews Newspaper Clippings	One
QUANTITATIVE STUDY				
20	Quantitative School and Learner Survey	Annually	1732 Imbewu schools & 650 non Imbewu school sample in relation to national performance indicators	Three Interfaces with Output one – four

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

STRUCTURE OF THE INSTRUMENT FOR MEASURING READINESS/PREPAREDNESS OF LEARNERS AT THE START OF GRADE 10 AND GRADE 12

STRUCTURE OF THE INSTRUMENT FOR MEASURING READINESS/PREPAREDNESS OF LEARNERS AT THE START GRADE 10 AND GRADE 12

THINKING IN …

WORDS	words and shapes	**SHAPES**	shapes and numbers	**NUMBERS**	numbers and words
1. Reading 2. Comprehending 3. Communicating 4. Summarising	5. graphic organiser	6. Cartoon summary	7. Patterns	8. Numeracy	9. Word/number problems
Colour coding for graphic representation					
BLUE	purple	**RED**	orange	**YELLOW**	green

Explanation

This is a visual presentation of the instrument designed to test learner preparedness at the start of the FET course (Grade 10) and at the start of the final Grade 12

There are three broad parameters and then there are three areas where boundaries are crossed… this is to obtain a gestalt view of preparedness and at the same time to be able to analyse compartments of weakness and overlaps…. Word thinking running into shape thinking; shape thinking running into number thinking; and number thinking running into word thinking

ATTACHMENT 6.3.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 10 PERFORMANCE
ASSESSMENT INSTRUMENT

IMBEWU II

COMPREHENSIVE EVALUATION

INSTRUMENT DESIGN FOR
THE QUALITATIVE

LONGITUDINAL COHORT

STUDIES

Province of the Eastern Cape

DEPARTMENT OF EDUCATION

Grade 10 Performance Assessment Instrument

NAME OF EVALUATOR : ……

TRACKING CODE: 04/ _____/ _____/ _____/pa/ _____
Year / district / school no/ learner no/ pa / grade

DATE: ……

Year \ month \ date

Grade 10 Performance Assessment Instrument

Introduction

The baseline assessment test consists of one reading text and assessment instruments on the following:

A Thinking in words (30 min)

1. Reading fluency test
2. Comprehension check
3. C- test (communicating in words)
4. Summarising

B Thinking in words and shapes (10 min)

5. Graphic organiser

C Thinking in shapes (10 min)

6. Cartoon analysis

D Thinking in shapes and numbers (10 min)

7. Patterns

E Thinking in numbers (10 min)

8. Numbers

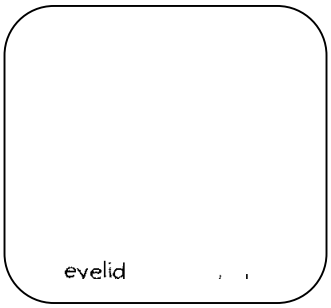
F Thinking in numbers and words (10 min)

9. Word Problems

A THINKING IN WORDS (30 MIN)

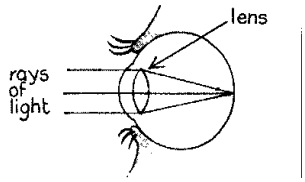
THE EYE

Your eyes are like round, white balls. In the middle of the white ball there is a circle of colour, which can be brown, green or blue. This is called the iris. In the middle of the iris is a black dot, which we call the pupil.

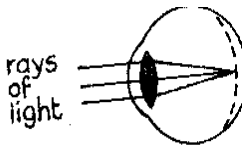


The pupil lets light into the eye so that we can see. The iris can close the pupil to a tiny dot when it is very bright to prevent too much light from getting into the eye. When there is very little light, the iris opens up to make the pupil large so that more light can get in.

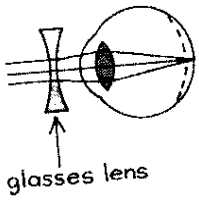
Our eyes are protected by our eyelids and eyelashes. We protect our eyes by closing them if anything comes towards them, and our eyelashes help us to keep dust out of our eyes. But if dust does get into our eyes, then tears help to wash it away so that it doesn't scratch our eyes.



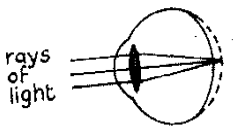
Our eyes show us light and colour, tell us the size and shape of objects and tell us where these objects are. But not everybody's eye work perfectly. Inside the eye is a lens, which helps us to focus on what we are looking at. The lens focuses rays of light from the object on the back of the eyes. This is what makes us see things and gives us sight.

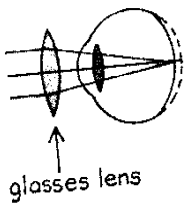


If you are short- sighted, then you cannot see things clearly when they are far away. This is because lens inside your eye makes light rays focus just before the back of your eyes. You need to wear glasses that put another lens in front of your eye to correct what the lens inside your eye is doing.



If you are long-sighted or farsighted, then you cannot see things clearly when they are close. This is because the lens inside your eye makes the light rays focus behind the back of your eye. You need to wear different glasses that put another lens in front of your eye. This lens helps to correct what the lens inside your eye is doing





Maybin, J. (1996) Mapep 2005

1. Reading fluency

(Learners will be given exactly sixty seconds to read as much of passage A as they can. The process must be carefully timed, with the supervisor (person administering the test) informing the learners when to start and when to stop.)

Instructions to the learners

- Listen carefully to the instructions
- You are going to do a timed reading of the passage so that we may find out how fast or slowly you read.
- When the supervisor says 'begin' the learner should begin reading.
- When the supervisor says stop, the learner must stop immediately and mark the point at which she/he stopped.
- Then the supervisor and learner will count the number of words read and write the number of words in the answer sheet provided.
- The number represents the number of words read per minute.

2. Comprehension check

Read the passage and answer the questions that follow on the answer sheet provided. Do not rewrite the whole sentence, write only the letter of the answer.

Choose the correct answer

2.1 If you are short sighted then

A. You cannot see things that are near
B You cannot see things that are far away
C You have good vision
D The lens of your eyes makes the light rays focus in front of your eye

2.2 The iris reacts to light by

A. closing when it is very bright
B. opening to a large dot when it is very dark
C. closing when it is dark
D. opening to a large dot when it is very bright

2.3 **If you are long-sighted or farsighted**

A. Then you cannot see things when they are close
B. Then you cannot see things that are far away

C. You can see things both near and far

D. The lens of your eyes makes the light rays focus in front of your eye

Choose the incorrect answer

2.4 Our eyes are protected by

A. eyelashes

B. eyelids

C. closing them when something comes near

D. keeping them open

Choose the incorrect answer

2.5 The pupil lets light into the eye

A. so that we can see

B. so that we can determine colour

C. so that we could all have perfect vision

D. to tell us the size and shapes of objects

(5 x 2)

3. C- Test

Read Passage A and answer the questions that follow:

3.1 Why is the pupil sometimes large and sometimes small? (4)

3.2 Why do we need to protect our eyes? Give two reasons. (4)

3.3 How do tears protect our eyes? (4)

3.4 Explain in your own words why glasses help people to see better? (4)

3.5 Describe the iris. (4)

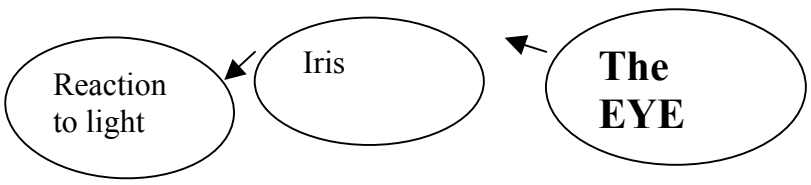
4. Summary

Read the passage carefully and summarise the text in 100 words. (10)

B THINKING IN WORDS AND SHAPES (10 MIN)

5. Graphic organiser (10)

Read **the text on the EYE and present it visually**. *Complete the graphic organiser (mind map).(The task of transferring information from a text to a graphic organiser or visual representation of the information provides insight into a learners ability to identify key information from a text and to see the relationships among ideas presented in the text or a portion of the text. You can present information visually by using a mind map or a tree or a flow diagrams).*



C THINKING IN SHAPES (10MIN)

6. Cartoon analysis

Study the cartoon (Figure 1) and answer the questions that follow:

Figure 1

6.1 Give the cartoon a title. (4)

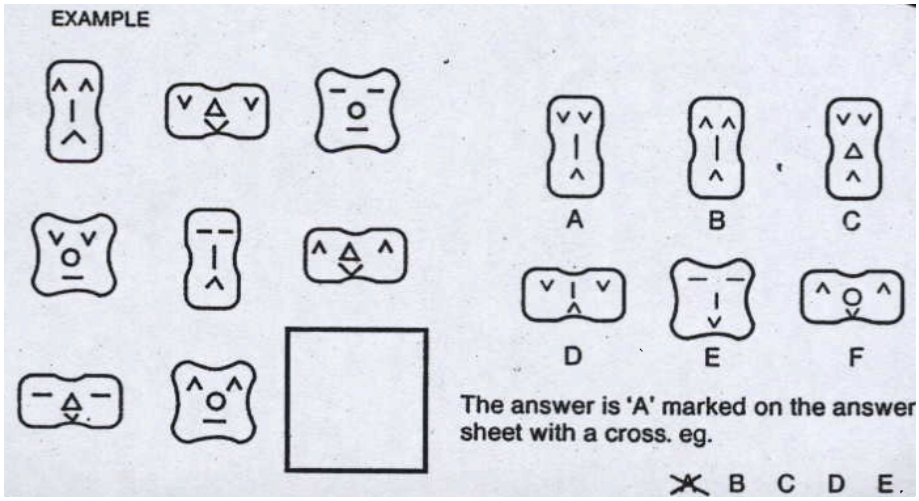
6.2 What message is the cartoonist trying to convey? (6)

D THINKING IN SHAPES AND NUMBERS (10 MIN)

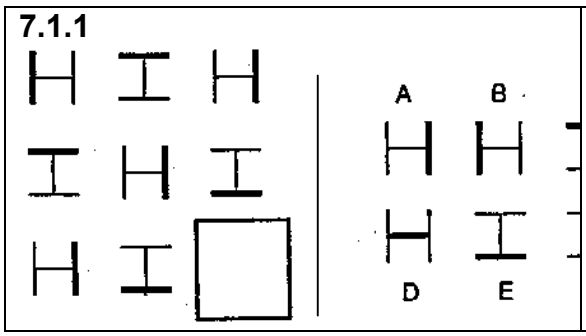
7. Patterns

7.1 Filling the vacant space

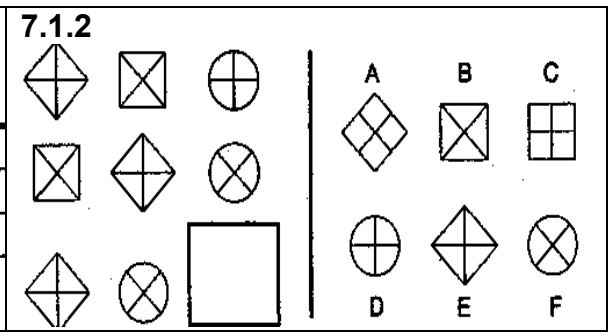
This test has six numbered figures. Identify the figure that fits into the vacant square so as to complete the pattern. Answers to be written on the answer sheet provided.



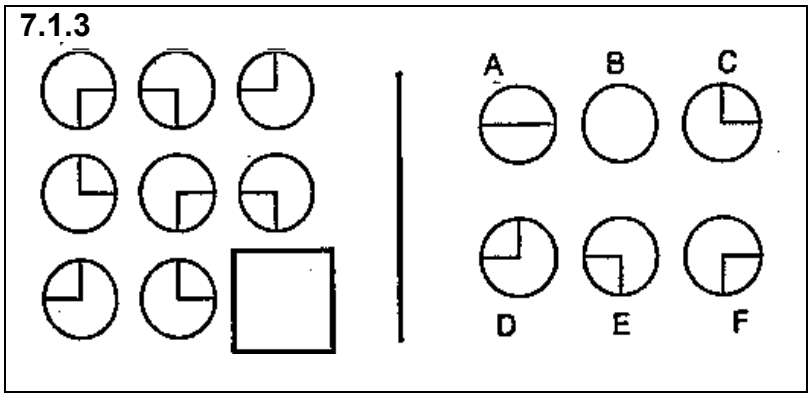
7.1.1



7.1.2



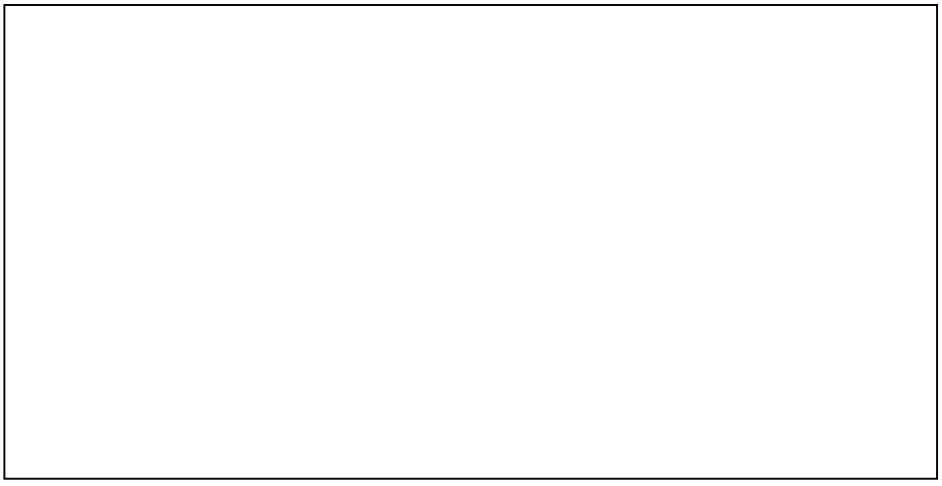
7.1.3



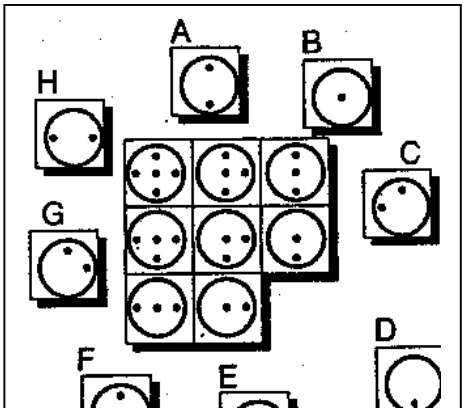
(3 x 4)

7.2 Placing a tile

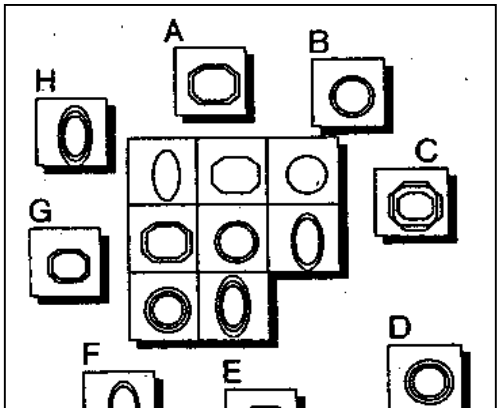
A central block of tiles has one end missing. Work out which of the scattered tiles makes the best logical fit. Answers to be written on the answer sheet provided.



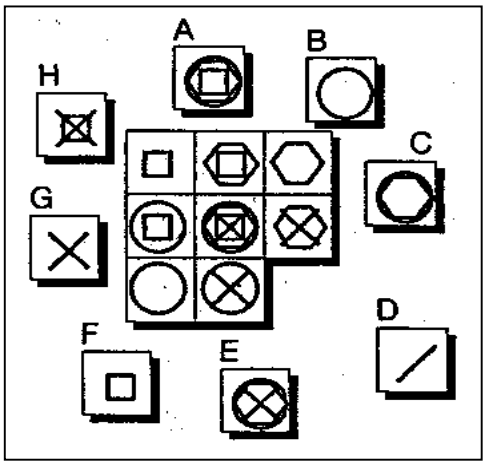
7.2.1



7.2.2



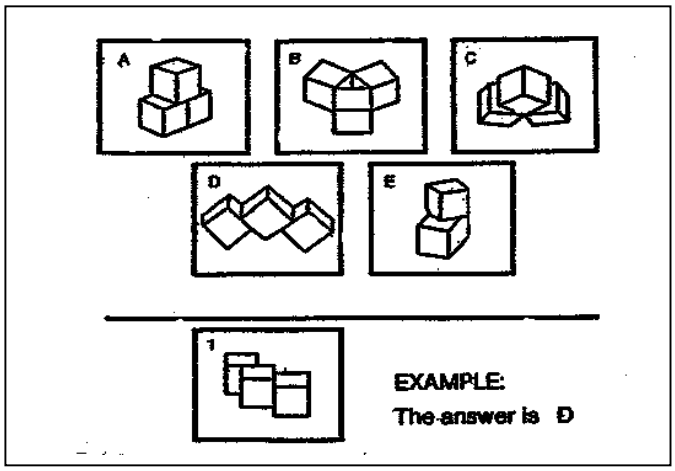
7.2.3



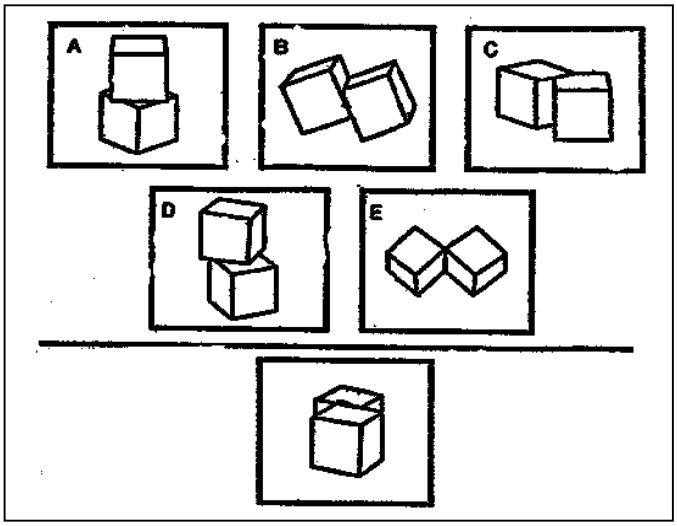
(3x 4)

7.3 Dimensional Blocks

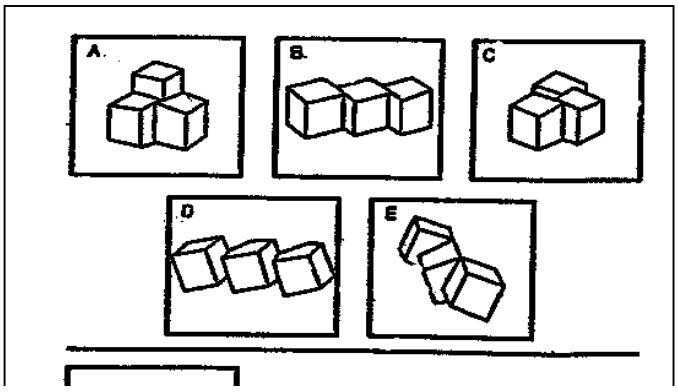
This test has blocks above and below a dark line. You should decide which set of blocks match each other. Answers to be written on the answer sheet provided.



7.3.1



7.3.2



E THINKING IN NUMBERS (10 MIN)

8. Numbers

Read the question carefully. Choose the correct answer and enter it on the answer sheet provided. (Circle the correct answer)

8.1 Which number follows in the series?

11 14 17

A. 22

B 24

C 23

D 20

8.2. What is _ of _ ?

A. 1

B. _

C. _

D. 0

8. 3. Find the $\frac{1}{3}$ of 24 ?

A. 6

B. 8

C. 72

D. 12

8.4 The following series is based on the alphabet. Which letter follows in the series?

a e c g e

A. i

B. d

C. h

D. j

8.5 What fraction is 50c of R5, 00?

A. $\frac{1}{10}$

B. $\frac{1}{5}$

C. _

D. $\frac{1}{3}$

8.6 Which number follows in the series?

37 43 49 55

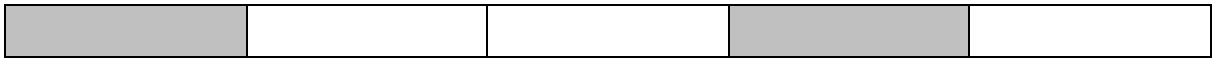
A 60

B 61

C 62

D 63

8.7 What fraction is the shaded part of the whole figure?



A 2

B 3

C $\frac{2}{5}$

D $\frac{3}{5}$

8.8 Find the value of $\frac{2}{3}$ of an hour

A 20 minutes

B 40 minutes

C 60 minutes

D 80 minutes

8 x 2 = 16

F Thinking in numbers and words (10 min)

9. Word Problems

9.1. A t-shirt costs R120- 00. How much will it cost if the amount was decreased by 30% ?

A. R 100

B. R81

C. R36

D. R84

9.2 The ratio of girls to boys in a class is 3 : 2. If there are 30 students in the class, how many girls are there?

A. 12

B. 15

C. 18

D. 24

9.3 If 5 / of milk cost R2 , 75. How much will 2 / of milk cost?

A R0 , 55
B R0 , 75
C R1 , 10
D R1 , 50

9.4 250 bananas are in a box. Only $\frac{8}{100}$ of the bananas are ripe. How many bananas are green.

A 50
B 200
C 20
D 230

9.5 There are 150 grade 10 learners. 90 of them passed the exams. What is the percentage passed the exams?

A 40 %
B 50 %
C 60 %
D 70 %

9.6 If 6 bags of coal cost R13, what will 14 bags?

A R28

B R30,33

C R32,50

D R25

9.7 A person drives 42 km in 4 hours 26 minutes. How long will it take to drive 72 km?

A 8 hours

B 7 hours 36 minutes

C 7 hours

D 6 hours 24 minutes

7 x 2 = 14

ATTACHMENT 6.4.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 12 PERFORMANCE ASSESSMENT INSTRUMENT

IMBEWU II

COMPREHENSIVE EVALUATION

INSTRUMENT DESIGN FOR
THE QUALITATIVE

LONGITUDINAL COHORT

STUDIES

Province of the Eastern Cape

DEPARTMENT OF EDUCATION

Grade 12 Performance Assessment Instrument

NAME OF EVALUATOR : ……

TRACKING CODE: **04 /_____/ _____/ _____/ pa / gr _____**
Year /district /Sch. No./ learner no./ pa/ gr

DATE: ……

Year \ month \ date

Grade 12 Performance Assessment Instrument

Introduction

The baseline assessment test consists of one reading text and assessment instruments on the following:

A Thinking in words (30 min)

1 Reading fluency test
2. Comprehension check
3. C- test (communicating in words)
4. Summarising

B Thinking in words and shapes (10 min)

5. Graphic organiser

C Thinking in shapes (10 min)

7. Cartoon analysis

D Thinking in shapes and numbers (10 min)

7. Patterns

E Thinking in numbers (10 min)

10. Numbers

F Thinking in numbers and words (10 min)

11. Word Problems

1. Thinking in words (30min)

ARTICLE : *INDIA FACES FAMINE ON ETHIOPIA SCALE*

By GEOFFREY LEAN, Environment Correspondent

INDIA is facing an ecological[1] crisis, which will cause an Ethiopia-style famine within the next decade.

Water sources are drying up, according to evidence gathered by Indian officials and presented at a meeting of world experts on environment and development in Madrid. This seriously threatens food supplies and health in India, which is regarded as a third world success story for its achievements in increasing food production.

Nalni Jayal, adviser to India's Planning Commission, said at the general assembly of the International Union for the Conservation of Nature and Natural Resources: 'We are on the verge[2] of an enormous ecological disaster. What is happening in Africa is going to happen in India within ten years.'

The first signs of crisis emerged a year ago when representatives of the state governments met in Delhi to discuss their progress in introducing measures under the UN Clean Water Decade.

India has set a target of providing clean water to every home by 1990. But state after state indicate that although the engineering work of laying pipes and digging wells was going satisfactorily, springs and ground water sources were drying up, leaving more people without water than when the decade began.

According to the Chief Minister of Maharashtra, although his state had a target of completing water supplies to 15,000 villages: it found that 22,000 villages had lost water supplies. Investigations throughout India found similar crises everywhere, even in Kerala which is in the extreme south and has seven months of rains. In the northern state of Uttar Pradesh, 2,300 out of 2,700 water supplies provided by the Government had dried up.

WORSE FLOODS

Within 10 years there will be too little water to satisfy demand in almost every state in the country.

According to Nalni, the main reason for the crisis is the felling[3] of forests as trees help to retain water in the soil, and in a country where the rains are seasonal, people depend on such stored water for most of the year.

"Wherever the forests have been left intact there is water,' he told the conference: 'Wherever they have been cut down there is a crisis.

A THINKING IN WORDS (30 MIN)

1. Reading fluency

(Allow learners exactly **sixty seconds** (1 minute) to read as much of the article as they can. Carefully time the reading. The person administering the test will inform the learners when to start and when to stop.

Instructions to the learners

- Listen carefully to the instructions

[1] Ecological disaster - disaster that affects nature
[2] verge – on the edge of
[3] felling – chopping down

- You are going to do a timed reading of the article so that we may find out how fast or slowly you read.
- When I say 'begin' you should begin reading.
- When I say stop, you must stop immediately and mark the point at which you stopped.
- Then count the number of words read and write the number of words read in the answer sheet provided. This number represents the number of words read per minute.

2. Comprehension check

Read the article, "*India faces famine on an Ethiopia scale"* and answer the questions that follow on the answer sheet provided. Do not rewrite the whole sentence; write only the letter of the answer.

Select the most appropriate answer from the options given. Write your answer in the answer sheet provided. You do not have to rewrite the whole sentence.

2.1 One of the characteristics of famine is that

A. When a famine occurs there is lots of food for people to eat.
B. When a famine occurs there is not enough food for people to eat.
C. Flooding rivers wash away fertile soils and crops and results in famine.
D. Famines occur regularly in North America and Europe.

2.2 The relationship between forests and water supplies.

E. When forests are cut down water supplies are decreased.
F. When forests are cut down fewer floods occur.
G. Trees help the soil retain water.
H. In India trees are being cut down so that more water runs into the dams.

Select the most appropriate statement relating to:

2.3 Famine and India

E. The famine in India will be caused by the monsoon rains.
F. The famine in India will result from inadequate investment on agricultural study.
G. The famine in India will be the result of the felling of too many trees
H. The famine in India can be prevented by providing clean water

2.4 India and water supplies

E. When forests are left intact, there is water.

F. The government is able to meet the demands of its people.

G. Springs and underground water supplies are increasing the amount of water supplies in times of famine.

H. The drying up of the water sources does not affect the production of food supplies.

(4 x 2)

3. C- Test (communicating in words)

Read the article and answer the questions that follow:

3.1 Why is India on the verge of ecological disaster? (5)

3.2 What effect will this have on the people of India? (5)

3.3 What measures should the government implement to prevent this famine from taking place. (5)

4. Summary

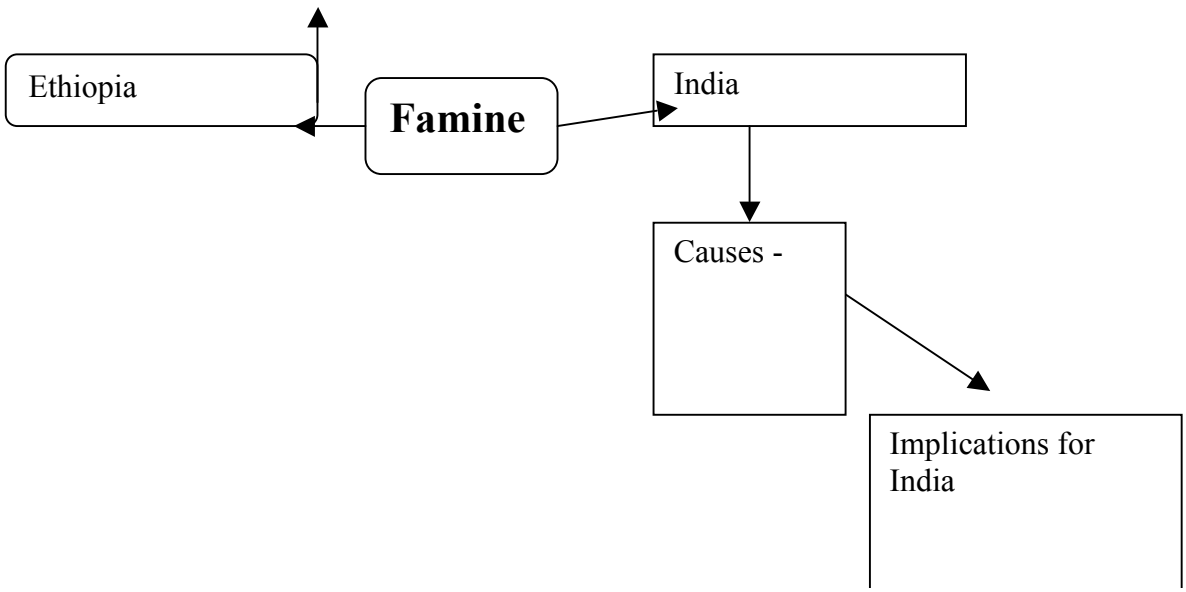
Read the article and summarise in 100 words. (10)
You may write in point form.

B THINKING IN WORDS AND SHAPES (10 MIN)

5. Graphic organiser (10)

Read the text and present a visual representation of it.

(The task of transferring information from a text to a graphic organiser or visual representation of the information provides insight into a learners ability to identify key information from a text and to see the relationships among ideas presented in the text or a portion of the text. You can present information visually by using a mind map or a tree or a flow diagrams). Eg mind map of the history of Russia -1918 – 1939.



C THINKING IN SHAPES (10 min)

6. Cartoon analysis

Study the cartoon (Figure 1) and answer the questions that follow:

Figure 1

6.2 Give the cartoon a title. (4)

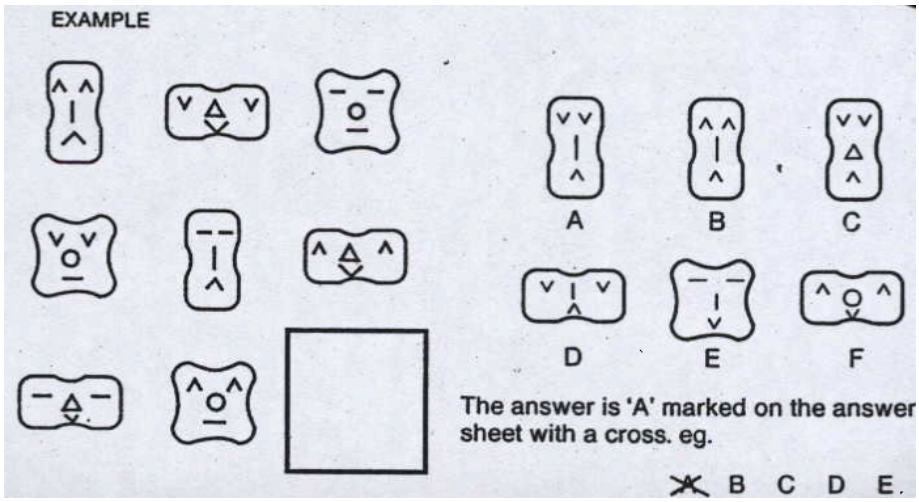
6.3 What message is the cartoonist trying to convey? (6)

D THINKING IN SHAPES AND NUMBERS (10MIN)

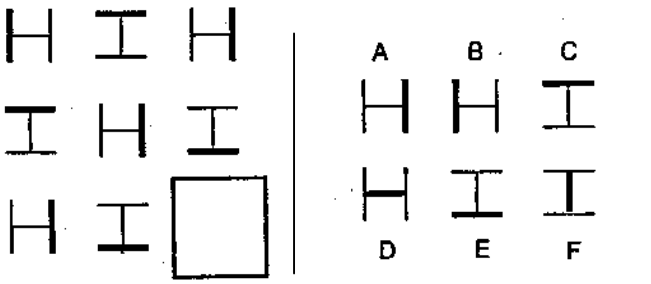
7. Patterns

7.1 Fill the vacant space

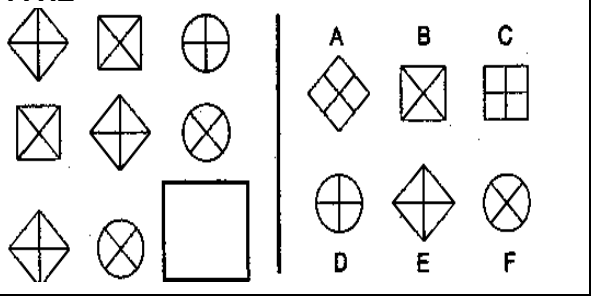
This test has six numbered figures. Identify the figure that fits into the vacant square so as to complete the pattern. Answers to be written on the answer sheet provided. **Circle the correct answer**



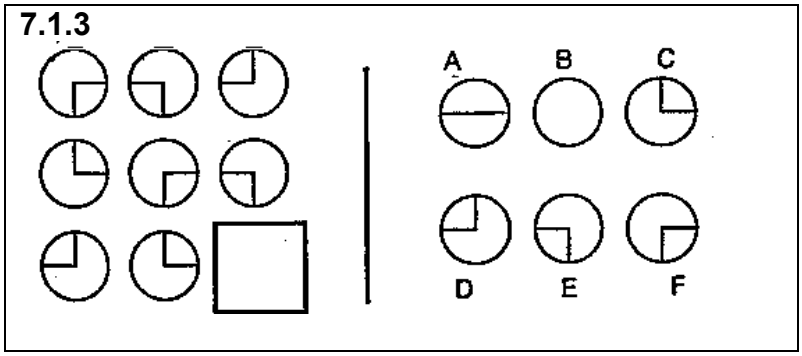
7.1.1



7.1.2



7.1.3

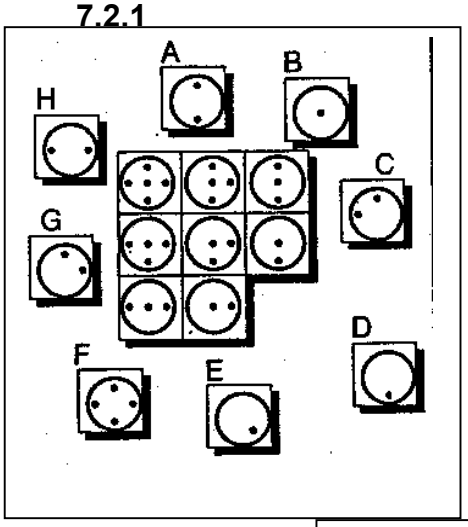


(3 x 4)

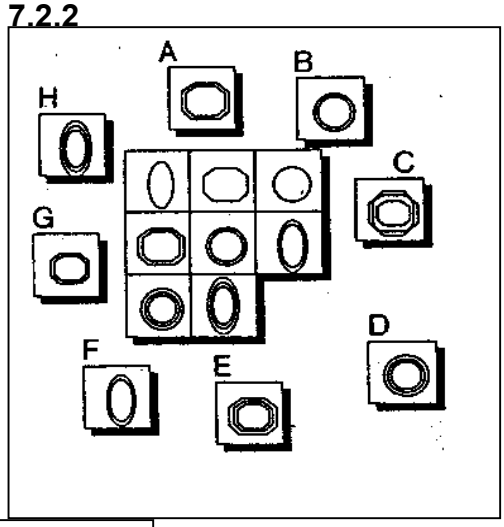
7.2 Placing a tile

A central block of tiles has one end missing. Work out which of the scattered tiles makes the best logical fit. Answers to be written on the answer sheet provided. **(Circle the correct answer)**

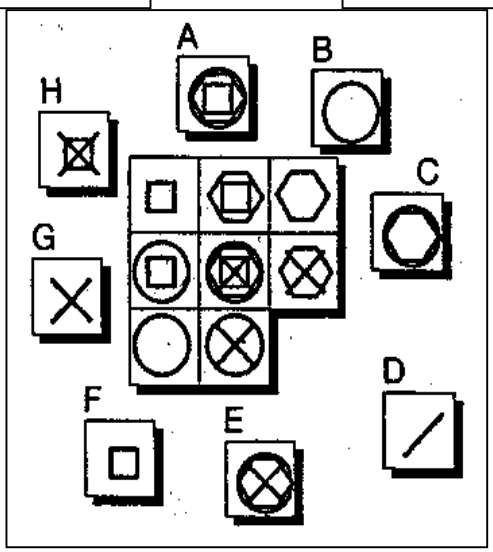
7.2.1



7.2.2



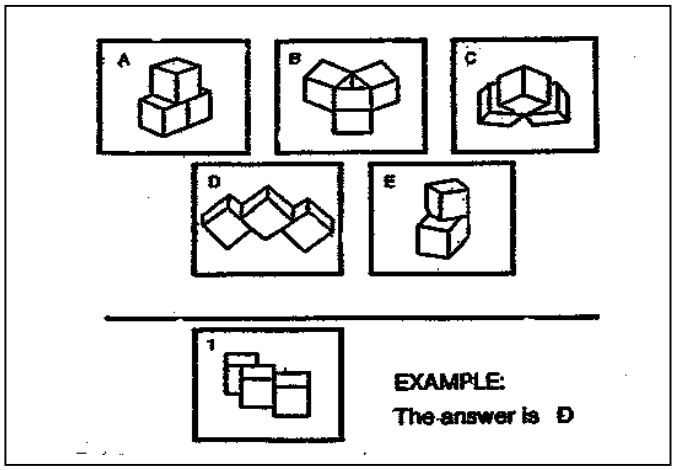
7.2.3



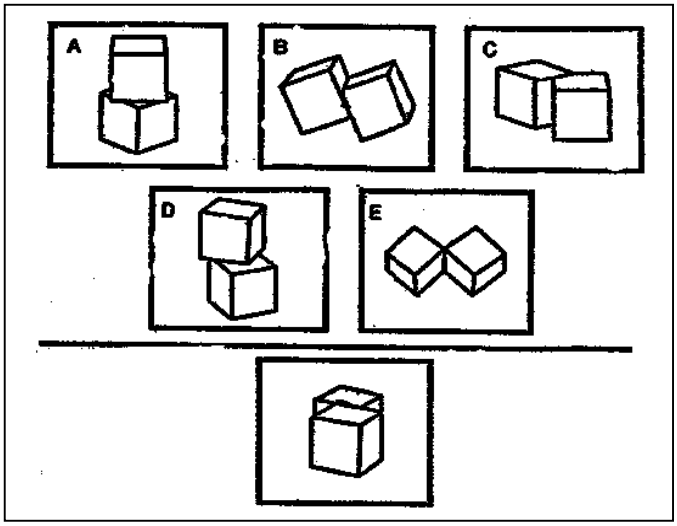
(3x 4)

7.3 Dimensional Blocks

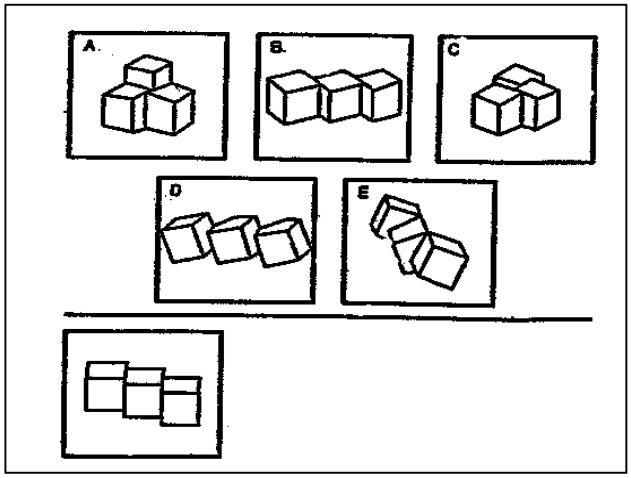
This test has blocks above and below a dark line. You should decide which set of blocks match each other. Answers to be written on the answer sheet provided. **(Circle the correct answer)**



7.3.1



7.3.2



(2 x 4)

E THINKING IN NUMBERS (10 MIN)

8. Numbers

Read the question carefully. Choose the correct answer and enter it on the answer sheet provided.

8.1 Which number follows in the series?

11 14 17

A. 22
B 24
C 20
D 23
E. none of the above

8.2 The following series is based on the alphabet. Which letter follows in the series?

a e c g e

E. i
F. d
G. h
H. j
I. none of these

8.3. Which letter is the fourth letter to the left of the letter which is immediately before L in the alphabet?

A. h
B. l
C. g
D. k
E. none of these

8.4 Which two numbers follow in the series?

37 43 49 55 ___ ___

A. 60 66
B. 61 66

C. 61 67

D. 62 67

E. none of these

8.5 What is _ of _ ?

E. 1

F. _

G. _

H. 0

I. none of these

8. 6. Find the $\frac{1}{3}$ of 24 ?

E. 6

F. 8

G. 72

H. 12

I. none of these

8.7 15 % of R 146 is ……

A. R 14 , 60

B. R16 , 00

C. R21 , 90

D. R21 , 09

E. none of these

8.8 What fraction is 50c of R5, 00?

A. $\frac{1}{10}$

B. $\frac{1}{5}$

C. _

D. $\frac{1}{3}$

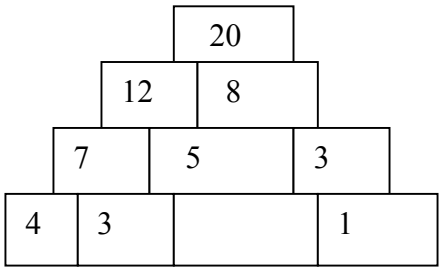
E. none of these

8.9. One of the numbers in the series is incorrect, choose the incorrect number.

13 26 39 144 221

A. 26
B. 39
C. 144
D. 221
E. none of these

8.10 Find the missing number



A. 2
B. 1
C. 3
D. 5
E. none of the above **(10 x 2)**

F THINKING IN NUMBERS AND WORDS (10 min)

9. Word Problems

9.1 A t-shirt costs R120- 00. How much will it cost if the amount was dropped down by 30% ?

E. R 100
F. R81
G. R36
H. R84
I. none of these

9.2 The sum of two numbers is 12. If one number is three times the other then their product is

A. 27
B. 24
C. 36
D. 20
E. none of these

11.3 The ratio of girls to boys in a class is 3 : 2. If there are 30 students in the class, how many girls are there?

E. 12
F. 15
G. 18
H. 24
I. none of these

9.4. If the cost of c oranges is d rand, what is the cost, in cents, of x oranges?

A. $\frac{dc}{100x}$
B $\frac{100dx}{c}$
C $\frac{100d}{x}$
D $\frac{100d}{cx}$
E none of these

9.5 A person drives 42 km n 4 hours 26 minutes. How long will it take to drive 72 km?

A 8 hours
B 7 hours 36 minutes
C 7 hours
D 8 hours 24 minutes

(5x2)

ATTACHMENT 6.5.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 10 PERFORMANCE
ASSESSMENT INSTRUMENT – ANSWER SHEET

IMBEWU II

COMPREHENSIVE EVALUATION

INSTRUMENT DESIGN FOR
THE QUALITATIVE

LONGITUDINAL COHORT

STUDIES

Province of the Eastern Cape

DEPARTMENT OF EDUCATION

Grade 10 Performance Assessment Instrument

ANSWER SHEET

NAME OF EVALUATOR : ……

TRACKING CODE: 04/ _____/ _____/ _____/ pa / gr _____
Year / district / school no/ learner no/ pa / grade

DATE: ……

Year \ month \ date

LEARNER PROFILE

1. **Name of learner :** _____
2. **Date of birth :** _____
3. **Identity No :** _____
4. **Gender :** **Male** _____ **Female** _____
5. **Home language :** _____
6. **Home address :** _____
7. **Name of parent or guardian:** _____
8. **Do you live with your parents / guardian/ other / alone.**
   (Indicate by circling your response)
9. **Name of school :** _____
10. **Please write down your subjects**

1. English	**5.**
2.	**6.**
3.	**7.**
4.	

11.1 Have you repeated any grades? Yes _____ **No** _____

11.2 If yes, please state. _____

LEARNER PERFORMANCE TEST - ANSWER SHEET

A Thinking in words (30 min)

1 Reading fluency test
2. Comprehension check
3. C- test (communicating in words)
4. Summarising

B Thinking in words and shapes (10 min)

5. Graphic organiser

C Thinking in shapes (10 min)

9. Cartoon analysis

D Thinking in shapes and numbers (10 min)

7. Patterns

E Thinking in numbers (10 min)

12. Numbers

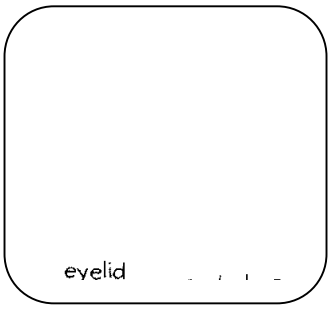
F Thinking in numbers and words (10 min)

13. Word Problems

A THINKING IN WORDS (30 MIN)

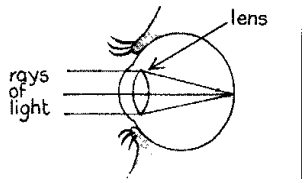
THE EYE

Your eyes are like round, white balls. In the middle of the white ball there is a circle of colour, which can be brown, green or blue. This is called the iris. In the middle of the iris is a black dot, which we call the pupil.

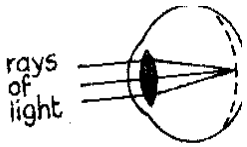


The pupil lets light into the eye so that we can see. The iris can close the pupil to a tiny dot when it is very bright to prevent too much light from getting into the eye. When there is very little light, the iris opens up to make the pupil large so that more light can get in.

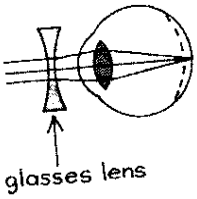
Our eyes are protected by our eyelids and eyelashes. We protect our eyes by closing them if anything comes towards them, and our eyelashes help us to keep dust out of our eyes. But if dust does get into our eyes, then tears help to wash it away so that it doesn't scratch our eyes.



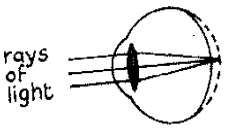
Our eyes show us light and colour, tell us the size and shape of objects and tell us where these objects are. But not everybody's eye work perfectly. Inside the eye is a lens, which helps us to focus on what we are looking at. The lens focuses rays of light from the object on the back of the eyes. This is what makes us see things and gives us sight.

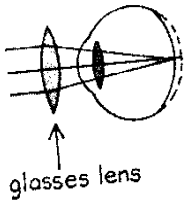


If you are short- sighted, then you cannot see things clearly when they are far away. This is because lens inside your eye makes light rays focus just before the back of your eyes. You need to wear glasses that put another lens in front of your eye to correct what the lens inside your eye is doing.



If you are long-sighted or farsighted, then you cannot see things clearly when they are close. This is because the lens inside your eye makes the light rays focus behind the back of your eye. You need to wear different glasses that put another lens in front of your eye. This lens helps to correct what the lens inside your eye is doing





Maybin, J. (1996) Mapep 2005

Reading

1. **Reading fluency**

Number of words read in 60 seconds _____

2. **Comprehension check** (circle the correct /best answer)

2.1	A	B	C	D
2.2	A	B	C	D
2.3	A	B	C	D
2.4	A	B	C	D
2.5	A	B	C	D

3. C-TEST

3.1

_____
_____
_____
_____
_____

3.2

_____
_____
_____
_____
_____

3.3

_____
_____
_____
_____
_____

3.4

_____
_____
_____
_____

3.5

_____
_____
_____
_____
_____

4. Summary

Summarise the information in Passage A in 100 words. You may write in point form

B THINKING IN WORDS AND SHAPES (10 MIN)

5. Graphic organiser (10)

Read **the text on the EYE and present it visually**. *Complete the graphic organiser (mind map).(The task of transferring information from a text to a graphic organiser or visual representation of the information provides insight into a learners ability to identify key information from a text and to see the relationships among ideas presented in the text or a portion of the text. You can present information visually by using a mind map or a tree or a flow diagrams).*

C THINKING IN SHAPES

6. Cartoon

6.1 Give the cartoon a title.

_____

6.2. What message is the cartoonist trying to convey?

_____

_____

_____

_____

D THINKING IN SHAPES AND NUMBERS (10 MIN)

7. Patterns

7.1 Filling the vacant space (Circle the correct answer)

7.1.1	A	B	C	D	E	F
7.1.2	A	B	C	D	E	F
7.1.3	A	B	C	D	E	F

7.2 Placing a tile (Circle the correct answer)

7.2.1	A	B	C	D	E	F	G	H
7.2.2	A	B	C	D	E	F	G	H
7.2.3	A	B	C	D	E	F	G	H

7.3 Dimensional blocks (Circle the correct answer)

7.3.1	A	B	C	D	E
7.3.2	A	B	C	D	E

E THINKING IN NUMBERS (10 MIN)

8. Numbers (Circle the correct answer)

8.1	A	B	C	D
8.2	A	B	C	D
8.3	A	B	C	D
8.4	A	B	C	D
8.5	A	B	C	D
8.6	A	B	C	D
8.7	A	B	C	D
8.8	A	B	C	D

F Thinking in numbers and words (10 min)

10. Word Problems (Circle the correct answer)

9.1	A	B	C	D
9.2	A	B	C	D
9.3	A	B	C	D
9.4	A	B	C	D
9.5	A	B	C	D
9.6	A	B	C	D
9.7	A	B	C	D

Reading and writing assessment

Competencies				
	Emergent 1	**Developing 2**	**Competent 3**	**Exemplary 4**
Reading				
Fluency and comprehension (reading speed)	0-50 words per minute	51-100 words per minute	101-150 words per minute	151 + words per minute
Comprehension check + C test	0% -25%	26%-50%	51% -75%	76% -100%
Summary and graphic organisers	0% -25%	26%-50%	51% -75%	76% -100%

ATTACHMENT 6.6.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 12 PERFORMANCE
ASSESSMENT INSTRUMENT – ANSWER SHEET

IMBEWU II

COMPREHENSIVE EVALUATION

INSTRUMENT DESIGN FOR
THE QUALITATIVE

LONGITUDINAL COHORT

STUDIES

Province of the Eastern Cape

DEPARTMENT OF EDUCATION

Grade 12 Performance Assessment Instrument

ANSWER SHEET

NAME OF EVALUATOR : ……

TRACKING CODE: **04 / _____/ _____/ pa / gr _____**
Year / district / school no/ pa / grade

DATE: ……

Year \ month \ date

LEARNER PROFILE

12. Name of learner : _____

13. Date of birth : _____

14. Identity No : _____

15. Gender : Male _____ Female _____

16. Home language : _____

17. Home address : _____

18. Name of parent or guardian: _____

19. Do you live with your parents / guardian/ other / alone.

(Indicate by circling your response)

20. Name of school : _____

21. Please write down your subjects

1. English	**5.**
2.	**6.**
3.	**7.**
4.	

22.1 Have you repeated any grades? Yes _____ No _____

11.2 If yes, please state. _____

LEARNER PERFORMANCE TEST - ANSWER SHEET

ARTICLE : *INDIA FACES FAMINE ON ETHIOPIA SCALE*

By GEOFFREY LEAN, Environment Correspondent

INDIA is facing an ecological[4] crisis, which will cause an Ethiopia-style famine within the next decade.

Water sources are drying up, according to evidence gathered by Indian officials and presented at a meeting of world experts on environment and development in Madrid. This seriously threatens food supplies and health in India, which is regarded as a third world success story for its achievements in increasing food production.

Nalni Jayal, adviser to India's Planning Commission, said at the general assembly of the International Union for the Conservation of Nature and Natural Resources: 'We are on the verge[5] of an enormous ecological disaster. What is happening in Africa is going to happen in India within ten years.'

The first signs of crisis emerged a year ago when representatives of the state governments met in Delhi to discuss their progress in introducing measures under the UN Clean Water Decade.

India has set a target of providing clean water to every home by 1990. But state after state indicate that although the engineering work of laying pipes and digging wells was going satisfactorily, springs and ground water sources were drying up, leaving more people without water than when the decade began.

According to the Chief Minister of Maharashtra, although his state had a target of completing water supplies to 15,000 villages: it found that 22,000 villages had lost water supplies. Investigations throughout India found similar crises everywhere, even in Kerala which is in the extreme south and has seven months of rains. In the northern state of Uttar Pradesh, 2,300 out of 2,700 water supplies provided by the Government had dried up.

WORSE FLOODS

Within 10 years there will be too little water to satisfy demand in almost every state in the country.

According to Nalni, the main reason for the crisis is the felling[6] of forests as trees help to retain water in the soil, and in a country where the rains are seasonal, people depend on such stored water for most of the year.

"Wherever the forests have been left intact there is water,' he told the conference: 'Wherever they have been cut down there is a crisis.

A THINKING IN WORDS (30 MIN)

2. Reading fluency

Number of words read in 60 seconds _____

[4] Ecological disaster - disaster that affects nature
[5] verge – on the edge of
[6] felling – chopping down

2. Comprehension check

Read the article, "*India faces famine on an Ethiopia scale"* and answer the questions that follow on the answer sheet provided. Do not rewrite the whole sentence; write only the letter of the answer.

Select the most appropriate answer from the options given. Write your answer in the answer sheet provided. You do not have to rewrite the whole sentence.

2.1	A	B	C	D
2.2	A	B	C	D
2.3	A	B	C	D
2.4	A	B	C	D

(4 x 2)

3 C- Test (communicating in words)

Read the article and answer the questions that follow:

3.1. Why is India on the verge of ecological disaster? (5)

_____
_____
_____
_____
_____
_____

3.2. What effect will this have on the people of India? (5)

_____
_____
_____
_____
_____
_____

3.3. What measures should the government implement to prevent this famine from taking place. (5)

_____
_____
_____
_____
_____
_____

(3 x 5 = 15)

4. Summary

Read the article and summarise in 100 words. (10)
You may write in point form.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

B THINKING IN WORDS AND SHAPES (10 MIN)

5. Graphic organiser (10)

Read the text and present a visual representation of it.

(The task of transferring information from a text to a graphic organiser or visual representation of the information provides insight into a learners ability to identify key information from a text and to see the relationships among ideas presented in the text or a portion of the text. You can present information visually by using a mind map or a tree or a flow diagrams). Eg mind map of Russia -1918 - 1939

C THINKING IN SHAPES (10 MIN)

6. Cartoon analysis

Study the cartoon (Figure 1) and answer the questions that follow:

6.4 Give the cartoon a title. (4)

_____

6.5 What message is the cartoonist trying to convey? (6)

_____
_____
_____
_____
_____
_____

D THINKING IN SHAPES AND NUMBERS (10 MIN)

7. Patterns

7.1 Fill the vacant space

This test has six numbered figures. Identify the figure that fits into the vacant square so as to complete the pattern. **(Circle the correct answer)**

7.1.1	A	B	C	D	E	F
7.1.2	A	B	C	D	E	F
7.1.3	A	B	C	D	E	F

(3 x 4)

7.2 Placing a tile

A central block of tiles has one end missing. Work out which of the scattered tiles makes the best logical fit. **(Circle the correct answer)**

7.2.1	A	B	C	D	E	F	G	H
7.2.2	A	B	C	D	E	F	G	H
7.2.3	A	B	C	D	E	F	G	H

(3x 4)

7.3 Dimensional Blocks

This test has blocks above and below a dark line. You should decide which set of blocks match each other. **(Circle the correct answer)**

7.3.1	A	B	C	D	E
7.3.2	A	B	C	D	E

(2 x 4)

E THINKING IN NUMBERS (10 MIN)

8. Numbers (Circle the correct answer)

8.1	A	B	C	D	E
8.2	A	B	C	D	E
8.3	A	B	C	D	E
8.4	A	B	C	D	E
8.5	A	B	C	D	E
8.6	A	B	C	D	E
8.7	A	B	C	D	E
8.8	A	B	C	D	E
8.9	A	B	C	D	E
8.10	A	B	C	D	E

(10 x 2)

F THINKING IN NUMBERS AND WORDS

9. Word Problems (Circle the correct answer)

9.1	A	B	C	D	E
9.2	A	B	C	D	E
9.3	A	B	C	D	E
9.4	A	B	C	D	E
9.5	A	B	C	D	E

(5x2)

Reading and writing assessment

Competencies				
	Emergent 1	**Developing 2**	**Competent 3**	**Exemplary 4**
Reading				
Fluency and comprehension (reading speed)	0-50 words per minute	51-100 words per minute	101-150 words per minute	151 + words per minute
Comprehension check + C test	0% -25%	26%-50%	51% -75%	76% -100%
Summary and graphic organizers/numeracy	0% -25%	26%-50%	51% -75%	76% -100%

ATTACHMENT 6.9.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 10 PERFORMANCE ASSESSMENT
DATA CODED

GRAHAMSTOWN DISTRICT [122]

1. TEM Mrwetyana (36)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	1	10	3	12	3	2	19	5	18
2	0	10	13	19	14	27	11	8	16
3	10	11	18	5	7	7	6	21	2
4	25	5	2	0	12	0	0	2	0

2. Mary Waters (60)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	10	6	9	10	14	33	13	24
2	2	23	24	34	43	36	25	30	26
3	22	18	24	14	5	10	2	14	8
4	36	9	6	3	2	0	0	3	2

3. Hendrik Kanise (26)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	2	8	4	18	6	12	22	14	15
2	5	6	14	7	20	14	4	9	11
3	15	8	8	1	0	0	0	3	0
4	4	4	0	0	0	0	0	0	0

EAST LONDON DISTRICT [131]

1. Kusile Comprehensive (56)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	6	17	10	7	23	32	41	19	28
2	5	15	20	31	28	22	12	32	27
3	27	22	23	16	1	1	3	5	1
4	18	2	3	2	4	1	0	0	0

2. Sikhulule Secondary School (38)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	4	23	22	30	15	27	30	19	18
2	9	8	11	8	14	10	8	13	15
3	18	5	5	0	9	1	0	5	5
4	7	2	0	0	0	0	0	1	0

3. Silimela High School **(37)**

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	21	10	20	16	11	30	14	18
2	7	9	19	12	11	14	6	16	15
3	25	7	7	5	3	10	1	7	4
4	5	0	1	0	7	2	0	0	0

LIBODE DISTRICT [124]

1. St. Patrick's Senior Secondary School **(29)**

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	18	13	15	8	14	25	14	11
2	4	7	6	11	17	11	2	11	16
3	14	2	6	3	3	4	2	4	2
4	11	2	4	0	1	0	0	0	0

2. Mtweni Senior Secondary School **(42)**

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	22	38	37	21	35	39	30	22
2	17	10	1	3	13	6	3	12	18
3	22	8	3	2	8	1	0	0	2
4	3	2	0	0	0	0	0	0	0

3. Port St. Johns Senior Secondary School **(53)**

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	2	29	28	45	29	37	47	24	31
2	9	13	15	5	13	15	5	23	22
3	25	9	10	3	11	1	1	5	0
4	17	2	0	0	0	0	0	1	0

TOTAL = 377

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems	**TOTAL**
1	**15**	**158**	**134**	**193**	**131**	**184**	**286**	**152**	**185**	**1438**
2	**58**	**101**	**123**	**130**	**173**	**155**	**76**	**154**	**166**	**1136**
3	**178**	**90**	**104**	**49**	**47**	**35**	**15**	**64**	**24**	**606**
4	**126**	**28**	**16**	**5**	**26**	**3**	**0**	**7**	**2**	**213**

3393

PERCENTAGES %

GRAHAMSTOWN DISTRICT [122]

1. TEM Mrwetyana (36)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	2.8	27.8	8.3	33.4	8.3	5.6	52.8	13.8	50
2	0	27.8	36.1	52.8	38.9	75	30.6	22.2	44.4
3	27.8	30.6	50	13.8	19.4	19.4	16.6	58.4	5.6
4	69.4	13.8	5.6	0	33.4	0	0	5.6	0

2. Mary Waters (60)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	16.7	10	15	16.7	23.3	55	21.7	40
2	3.3	38.3	40	56.7	71.7	60	41.7	50	43.3
3	36.7	30	40	23.3	8.3	16.7	3.3	23.3	13.3
4	60	15	10	5	3.3	0	0	5	3.4

3. Hendrik Kanise (26)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	7.7	30.8	15.4	69.2	23	46	84.6	53.8	57.7
2	19.2	23	53.8	26.9	77	54	15.4	34.6	42.3
3	57.7	30.8	30.8	3.9	0	0	0	11.6	0
4	15.4	15.4	0	0	0	0	0	0	0

EAST LONDON DISTRICT [131]

1. Kusile Comprehensive (56)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	10.7	30.4	17.8	12.5	41.1	57.1	73.2	33.9	50
2	8.9	26.8	35.7	55.4	50	39.3	21.4	57.1	48.2
3	48.2	39.3	41.1	26.7	1.8	1.8	5.4	9	1.8
4	32.2	3.5	5.4	3.4	7.1	1.8	0	0	0

2. Sikhulule Secondary School (38)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	10.5	60.5	57.9	78.9	39.5	71.1	78.9	50	47.4
2	23.7	21.1	28.9	21.1	36.8	26.3	21.1	34.2	39.4
3	47.4	13.2	13.2	0	23.7	2.6	0	13.2	13.2
4	18.4	5.2	0	0	0	0	0	2.6	0

3. Silimela High School (37)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	56.8	27	54.1	43.3	29.7	81.1	37.8	48.6
2	18.9	24.3	51.4	32.4	29.7	37.8	16.2	43.3	40.6
3	67.6	18.9	18.9	13.5	8.1	27	2.7	18.9	10.8
4	13.5	0	2.7	0	18.9	5.5	0	0	0

LIBODE DISTRICT [124]

1. St. Patrick's Senior Secondary School (29)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	62.1	44.8	51.7	27.6	48.3	86.2	48.3	37.9
2	13.8	24.1	20.7	37.9	58.6	37.9	6.9	37.9	55.2
3	48.3	6.9	20.7	10.4	10.3	13.8	6.9	13.8	6.9
4	37.9	6.9	13.8	0	3.5	0	0	0	0

2. Mtweni Senior Secondary School (42)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	52.4	90.5	88.1	50	83.3	92.9	71.4	52.4
2	40.5	23.8	2.4	7.1	31	14.3	7.1	28.6	42.9
3	52.4	19	7.1	4.8	19	2.4	0	0	4.7
4	7.1	4.8	0	0	0	0	0	0	0

3. Port St. Johns Senior Secondary School (53)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	3.8	54.7	52.8	84.9	54.7	69.8	88.7	45.3	58.5
2	17	24.5	28.3	9.4	24.5	28.3	9.4	43.4	
3	47.2	17	18.9	5.7	20.8	1.9	1.9	9.4	0
4	32	3.8	0	0	0	0	0	1.9	0

TOTAL = 377

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems	**TOTAL**
1	**4**	**41.9**	**35.5**	**51.2**	**34.7**	**48.8**	**75.9**	**40.3**	**49.1**	**42.4**
2	**15.4**	**26.8**	**32.6**	**34.5**	**45.9**	**41.1**	**20.2**	**40.8**	**44**	**33.5**
3	**47.2**	**23.9**	**27.6**	**13**	**12.5**	**9.3**	**3.9**	**17**	**6.4**	**17.9**
4	**33.4**	**7.4**	**4.3**	**1.3**	**6.9**	**0.8**	**0**	**1.9**	**0.5**	**6.2**

3393

ATTACHMENT 6.10

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 12 PERFORMANCE ASSESSMENT
DATA CODED

GRAHAMSTOWN DISTRICT [103]

1. TEM Mrwetyana (31)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	1	17	14	13	25	25	20	11	22
2	11	8	13	17	6	3	9	18	5
3	12	5	4	1	0	2	2	2	2
4	7	1	0	0	0	1	0	0	2

2. Mary Waters (51)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	18	2	2	4	1	23	5	32
2	4	23	18	9	17	32	23	29	9
3	21	8	25	39	29	16	5	15	9
4	26	2	6	1	1	2	0	2	1

3. Hendrik Kanise (21)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	1	14	9	4	16	8	15	4	18
2	3	6	6	11	3	10	5	13	3
3	13	1	6	5	1	3	1	3	0
4	4	0	0	1	1	0	0	1	0

EAST LONDON DISTRICT [71]

1. Kusile Comprehensive (43)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	14	17	22	40	28	18	3	34
2	5	19	22	19	3	7	18	23	6
3	26	9	4	2	0	3	6	14	2
4	12	1	0	0	0	5	1	3	1

2. Sikhulule Secondary School (12)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	6	3	9	12	3	8	3	10
2	0	4	5	2	0	3	3	8	1
3	9	2	2	1	0	6	1	1	1
4	3	0	2	0	0	0	0	0	0

3. Silimela High School (16)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	1	9	9	11	13	9	7	8	9
2	4	3	4	5	3	6	7	7	7
3	9	3	3	0	0	0	2	1	0
4	2	1	0	0	0	1	0	0	0

LIBODE DISTRICT [120]

1. St. Patrick's Senior Secondary School (59)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	3	27	40	22	37	34	31	9	49
2	22	22	16	33	18	19	19	31	8
3	26	8	3	4	4	6	8	18	1
4	8	2	0	0	0	0	1	1	1

2. Mtweni Senior Secondary School (31)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	11	17	11	19	12	25	7	28
2	11	15	14	13	8	7	4	20	2
3	18	5	0	5	3	10	2	4	1
4	2	0	0	2	1	2	0	0	0

3. Port St. Johns Senior Secondary School (30)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	6	13	10	7	2	9	0	24
2	8	10	7	17	13	10	18	21	5
3	12	12	8	2	9	12	2	8	1
4	10	2	2	1	1	6	1	1	0

TOTAL = 294

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems	**TOTAL**
1	**6**	**122**	**124**	**104**	**173**	**122**	**156**	**50**	**226**	**1083**
2	**68**	**110**	**105**	**126**	**71**	**97**	**106**	**170**	**46**	**899**
3	**146**	**53**	**55**	**59**	**46**	**58**	**29**	**66**	**17**	**529**
4	**74**	**9**	**10**	**5**	**4**	**17**	**3**	**8**	**5**	**135**

2646

PERCENTAGES %

GRAHAMSTOWN DISTRICT [103]

1. TEM Mrwetyana (31)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	3.2	54.8	45.2	41.9	80.6	80.6	64.5	35.5	71
2	35.5	25.8	41.9	54.8	19.4	9.7	29	58	16
3	38.7	16.2	12.9	3.3	0	6.5	6.5	6.5	6.5
4	22.6	3.2	0	0	0	3.2	0	0	6.5

2. Mary Waters (51)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	35.3	3.9	3.9	7.8	2	45.1	9.8	62.8
2	7.8	45.1	35.3	17.6	33.3	62.7	45.1	56.8	17.6
3	41.2	15.7	49	76.5	56.9	31.3	9.8	29.4	17.6
4	51	3.9	11.8	2	2	4	0	4	2

3. Hendrik Kanise (21)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	4.8	66.6	42.8	19	76.1	38.1	71.4	19	85.7
2	14.3	28.6	28.6	52.4	14.3	47.6	23.8	61.9	14.3
3	61.9	4.8	28.6	23.8	4.8	14.3	4.8	14.3	0
4	19	0	0	4.8	4.8	0	0	4.8	0

EAST LONDON DISTRICT [71]

1. Kusile Comprehensive (43)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	32.6	39.5	51.2	93	65.1	41.9	7	79
2	11.6	44.2	51.2	44.2	7	16.3	41.9	53.5	14
3	60.5	20.9	9.3	4.6	0	7	13.9	32.6	4.7
4	27.9	2.3	0	0	0	11.6	2.3	6.9	2.3

2. Sikhulule Secondary School (12)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	50	25	75	100	25	66.7	25	83.4
2	0	33.3	41.6	16.7	0	25	25	66.7	8.3
3	75	16.7	16.7	8.3	0	50	8.3	8.3	8.3
4	25	0	16.7	0	0	0	0	0	0

3. Silimela High School (16)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	6.3	56.2	56.2	68.8	81.3	56.3	43.8	50	56.3
2	25	3	25	31.2	18.7	37.5	43.8	43.8	43.7
3	56.2	3	18.8	0	0	0	12.4	6.2	0
4	12.5	1	0	0	0	6.2	0	0	0

LIBODE DISTRICT [120]

1. St. Patrick's Senior Secondary School (59)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	5.1	45.7	67.8	37.3	62.7	57.6	52.5	15.3	83.1
2	37.3	37.3	27.1	55.9	30.5	32.2	32.3	52.5	13.5
3	44.1	13.6	5.1	6.8	6.8	10.2	13.5	30.5	1.7
4	13.5	3.4	0	0	0	0	1.7	1.7	1.7

2. Mtweni Senior Secondary School (31)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	35.5	54.8	35.5	61.3	38.7	80.6	22.6	90.3
2	35.5	48.4	45.2	41.9	25.8	22.5	12.9	64.5	6.5
3	58.1	16.1	0	16.1	9.7	32.3	6.5	12.9	3.2
4	6.4	0	0	6.5	3.2	6.5	0	0	0

3. Port St. Johns Senior Secondary School (30)

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems
1	0	20	43.3	33.3	23.3	6.7	30	0	80
2	26.7	33.3	23.3	56.7	43.4	33.3	60	70	16.7
3	40	40	26.7	6.7	30	40	6.7	26.7	3.3
4	33.3	6.7	6.7	3.3	3.3	20	3.3	3.3	0

TOTAL = 294

	Word speed	Comp	C Test	Summary	Graphic Org.	Cartoon	Patterns	Numeracy	Word problems	**TOTAL**
1	**2**	**41.5**	**42.2**	**35.4**	**58.8**	**41.5**	**53**	**17**	**76.9**	**40.9**
2	**23.1**	**37.4**	**35.7**	**42.9**	**24.2**	**33**	**36**	**57.8**	**15.6**	**34**
3	**49.7**	**18**	**18.7**	**20**	**15.6**	**19.7**	**9.9**	**22.4**	**5.8**	**20**
4	**25.2**	**3.1**	**3.4**	**1.7**	**1.4**	**5.8**	**1.1**	**2.8**	**1.7**	**5.1**

2646

ATTACHMENT 6.11.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

GRADE 10-12 ADVOCACY NOTE

GRADE 10 AND 12 ADVOCACY

The Grade 10 and 12 learner and educator studies are designed to measure the readiness of both the teacher and the learner in the FET schooling sector to cope with the expectations required to progress through the system.
This required that the learners engage in literacy, graphicacy and numeracy testing and that the educators not only subject themselves to an interview but also to a lesson observation.

Due to the sensitive nature of the process it was imperative to plan and execute an advocacy programme that would create awareness and get buy in from the main stakeholders.

From the sample schools, 3 schools were chosen from each district. These consisted of 2 Imbewu schools and 1 non Imbewu school. The advocacy programme was conducted by the evaluation team in all 3 districts.

Appointments to visit schools were set over the phone prior to the school visits. The advocacy was done in a group context with the principal, together with grade 10 and 12 educators, SMT members and RCL representatives.

The method used consisted of an open discussion where it was explained to everyone that learner assessment would be conducted to both grade 10 and 12 learners and teacher observations to grade 10 and 12 educators. It was explained that video recordings and photographs would be taken. All questions were answered and suggestions were acknowledged.

Teachers were given the opportunity to volunteer to participate in the observation lessons and also to choose the lesson they would teach. The whole class would be assessed - there were no set numbers. The teachers were expected to teach the whole class for the entire lesson.

It was also explained that pre and post interviews were to take place. These were designed to better understand the educator s/he would be observing and the post interview would be an opportunity to discuss the lesson proceedings.

Teachers were given an opportunity to ask questions where they needed clarity. Follow up on who was going to be observed was done by phone as the teachers were given the opportunity to volunteer and produce the list with the name and lesson to be observed.

The advocacy programme paved the way for a smooth evaluation process.

IMBEWU II COMPREHENSIVE EVALUATION

THE QUANTITATIVE SAMPLE

The quantitative sample consists of schools from across the Province, made up of the 523 Schools which were part of the IMBEWU 1 interventions and of the 1500 schools which were part of the IMBEWU II interventions in year 1 of the programme. Since some of the schools in the IMBEWU II interventions were schools from IMBEWU 1, the final quantitative sample consists of 1732 IMBEWU schools. A sample of 650 non-IMBEWU schools, which is 10% of the total number of schools in the Province, have been selected from across the Province for comparative purposes. These non-IMBEWU schools were randomly selected.

THE QUALITATIVE SAMPLE

The Districts of Lusikisiki, Motherwell and Mdantsane (East London) were originally selected as the sample districts for these studies, since these were the same Districts that were identified by National as having the highest poverty index in the Province as well as being the Districts selected for the administration of the Whole School Systemic Evaluation. However, the sample of IMBEWU schools in two of these Districts was very weak, and did not make up the representative sample needed for the purpose of this comprehensive evaluation.

The Districts of Greater East London, Libode and Grahamstown were selected as the sample Districts. Schools were selected from both the GET and the FET bands. Consideration was given to whether these schools were considered to be Urban, Rural or Farm schools. Furthermore, a cross reference exercise was conducted to establish the extent of the interventions from IMBEWU I and II, making sure that the various interventions from both IMBEWU I and II were present and able to be measured. Schools were not chosen for their level of performance.

Attached is the list of sample schools which were used in all qualitative studies

ATTACHMENT 6.12.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

COMPREHENSIVE EVALUATION
SAMPLING

FET SCHOOLS														
No	**EMIS**	**SCHOOL NAME**	**1&2**	**S21**	**ABET**	**HIV/ AIDS**	**Smt /TT**	**Gr 9**	**Gr 12**	**P**	**ED**	**L**	**ADDRESS**	**ADDRESS**
1	**200333**	**KUSILE COMPR. SCHOOL#**	- +	A	TRUE	+	+ +	10	10*	+	O/I	+	MSIMANGO ST	DUNCAN VILLAGE
2		**VULAMAZIBUKO HIGH S**	- +	A		+	+ +	10	10*		O/I	+	2004 N.U.1	MDANSTANE
3	**200765**	**SIKHULULE SS**	- +	A	TRUE	+	+ +	10	10*		O/I	+	2011 N.U.1	MDANTSANE
4	**200767**	**SILIMELA SS SCHOOL**	- +	A		+	+ +	10	10*		O/I	+	MABELINI LOC	BERLIN
5	**201047**	**UNATHI SS SCHOOL**	- +	A		+	+ +	10	10*		O/I	+	TALENI ST.	CAMBRIDGE
		TOTAL					**5 / 5**	**50**	**50***	**1**	**5/5**	**5**		

SAMPLE OF SCHOOLS FOR THE IMBEWU 2 COMPREHENSIVE EVALUATION

DISTRICT: EAST LONDON

GET SCHOOLS

No	EMIS	SCHOOL NAME	1&2	S21	Abet	HIV/ AIDS	Gr. 1	Gr 3	Gr 6	P	ED	S/ TT	ADDRESS	ADDRESS
1	200149	ELITHENI SP SCHOOL	+ +	A		+			10				9706 NU4	MDANTSANE
2	200309	KHANYISA JP SCHOOL	+ +	A		+	2	10			O/I	+ +	9705 N.U.3	MDANTSANE
3	200167	EQULENI JP SCHOOL	+ +	A		+	2	10			O/I		6172 NU2	MDANTSANE
4	200354	LANGELITSHA SPS	+ +	A	True	+			10			+ +	5108 N.U.2	MDANTSANE
5	200644	NQONQWENI P SCHOOL	+ -	A		+	2	10	10	+	O/I	+ +	NQONQWENI	BERLIN
6	200199	GCOBANI INTERMIEDIATE P S	- +	A		+	2	10	10	+	O/I	+ +	TALENI ST.	CAMBRIDGE
7	200420	MASAKHE P SCHOOL (N/I)	- -			+	2	10	10	+	O/I	+ +	MASWI ST.	DUNCAN VILLAGE
		TOTAL					10	50	50	3	5	5/5		

 # - SGB WORKSHOP *** USE ALL RESULTS OF PREVIOUS FINAL EXAMS**

SAMPLE OF SCHOOLS FOR THE IMBEWU 2 COMPREHENSIVE EVALUATION

DISTRICT: LIBODE

GET SCHOOLS

No	EMIS	SCHOOL NAME	1&2	S21	ABE T	SMT/ T.T	Gr. 1	Gr 3	Gr 6	Gr 9	ED	P	ADDRESS	ADDRESS
1	400822	NONESI JS SCHOOL #	+ -	True	SCIPP	+ +	2	10	10	15	O/I	+	NYANDENI A/A	LIBODE
2	400892	NYANDENI JS SCHOOL	+ -	True		+ +	2	10	10	15	O/I		NYANDENI A/A	LIBODE
3	400563	MDENI JP SCHOOL	+ +		ELMD	+ +	2	10	10	-	O/I	+	ZITATELE A/A	LIBODE
4	400968	ROMAN CATHOLIC JS SCHOOL	+ +	A		+ +	2	10	10	10	O/I		WESTGATE ST	PORT ST JOHNS
5	400255	GXULU JSS (N/I)	- -			+ +	2	10	10	10	O/I	+	GXULU A/A	LIBODE
		TOTAL				5 / 5	10	50	50	50	5	3		

FET SCHOOLS

No	EMIS	SCHOOL NAME	1&2	S21	ABE T	HIV/ Aids	Smt/ T.T	Gr 9	Gr 12	P	ED	L	ADDRESS	ADDRESS
1	401076	TUTOR NDAMASE SS SCHOOL	- +	A	SCIPP		+ +		10*	+	O/I	1	NYANDENI A/A	LIBODE
2	400986	SEHUSHE COMMERCIAL SCH	- +	A			+ +		10*		O/I	1	ZITATELE A/A	LIBODE
3	401032	ST PATRICK'S SS SCHOOL	- +	A			+ +		10*		O/I	1	GXULU A/A	LIBODE
4	400926	PORT ST JOHNS SS SCHOOL	- +	A			+ +		10*		O/I	1	BEREA ROAD	PORT ST JOHNS
5	400676	MTWENI SS	- +	A			+ +		10*		O/I	1		PORT ST JOHNS
		TOTAL					5 / 5		50	1	5	5		

 # - SGB WORKSHOP *** USE ALL RESULTS OF PREVIOUS FINAL EXAMS**

SAMPLE OF SCHOOLS FOR THE IMBEWU 2 COMPREHENSIVE EVALUATION

DISTRICT: GRAHAMSTOWN

GET SCHOOLS

No	EMIS	SCHOOL NAME	1&2	S21	ABE T	HIV/ AIDS	Gr 1	Gr 3	Gr 6	Smt /T.T	ED	P	ADDRESS	ADDRESS
1	100100	C.M.VELLEM P SCHOOL	+ +	A	ELMD	+	2	10	10	+ +	O/I	+	DANIELS ST	MAKANASKOP
2	100677	SAMUEL NTSIKO P SCHOOL	+ +	A	ELMD		2	10	10	+ +	O/I		8 EDWARD ST	GRAHAMSTOWN
3	100123	CLUMBER FARM SCHOOL #	+ -				2	10	10	+ +	O/I	+	BELCREST	BELCREST FARM
4	100144	D.D.SIWISA P SCHOOL	+ +	A	True		2	10	10	+ +	O/I		OLD ESKOM BUILDING	EXTENSION 7
5	100676	SAMUEL NTLEBI P SCH. (N/I)	- -				2	10	10	+ +	O/I	+		GRAHAMSTOWN
		TOTAL					10	50	50	5 / 5	5	3		

FET SCHOOLS

No	EMIS	SCHOOL NAME	1&2	S21	ABE T	HIV/ AIDS	Smt /T.T	Gr 9	Gr 12	P	ED	L	ADDRESS	ADDRESS
1	100059	BENJAMIN MAHLASELA SS	- +	B	ELMD		+ +	10	10*		O/I	1	ZOTE STREET	KWA NONZWAKAZI
2	100300	HENDRIK KANISE COMBINED S	- +	A		+	+ +	10	10*	+	O/I	1	ZOTE STREET	KWA NONZWAKAZI
3	100382	KHUTLISO DANIELS SSS	- +	B			+ +	10	10*		O/I	1	VELLEM ST	MAKANASKOP
4	100493	MARY WATERS S SCHOOL	- +	A			+ +	10	10*		O/I	1		LAVENDER VALLEY
5	100767	T.E.M.MRWETYANA S SCHOOL	- +	B			+ +	10	10*		O/I	1	NCAME ST	JOZA TOWNSHIP
		TOTAL					5 / 5	50	50*	1	6	5		

 # - SGB WORKSHOP *** USE ALL RESULTS OF PREVIOUS FINAL EXAMS**

ATTACHMENT 6.13.

IMBEWU II COMPREHESIVE LONGITUDINAL EVALUATION

REFERENCE GROUP TERMS OF REFERENCE
&
REFERENCE GROUP REPORT

IMBEWU 11 PROGRAMME

COMPREHENSIVE *LONGITUDINAL EVALUATION*

Province of the Eastern Cape

DEPARTMENT OF EDUCATION

Imbewu 11 Programme

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TO : **Prof H Glover and Dr O B Maqgaza**

FROM: **Mrs N Barry**
DATE: **22 May 2004**
SUBJECT: **Assignment : Imbewu II Comprehensive Evaluation Reference Group**

Your agreement to become part of the team of specialists who will make up the Reference Group for this evaluation process is much appreciated. Welcome aboard.

The process

*The Reference Group consists of 6 Departmental and 6 External Specialists.
*Each External Reference Group Member will be paired up with a Departmental counterpart
*The task at hand consists of engaging in the critique of the Evaluation Reports as they become available from the various researchers / writers
*Each group of 2 specialists will be expected to work as a team and will be required to communicate, collaborate and collate a report with recommendations
*The 20 reports for this baseline year will be divided amongst the 6 teams – dependent on their field of expertise – meaning that each team of 3 will get to critique approximately 3/4 reports between mid March and end May
*The External Reference Group Member will be responsible for the co-ordination of the input from the Team and for the collation and the writing up and submission of the report with recommendations
*The process for **each report** is expected to take 3 days at the most

- Day 1 – reading and notes / critique
- Day 2 – Team Collaboration (this could be per phone, e-mail or fax)
- Day 3 – Writing up and submission of report

*All submissions will be received and acted on by Mrs Noeleen Barry who is the co-ordinator of the evaluation process
* All critique to a particular report will form part of the attachments at the end of the Evaluation Report and will be taken into consideration when refining and improving on the studies before publication. Recommendations for the next round of the evaluation process will be taken into account when improving on the evaluation process after the baseline.

The teams for this assignment

TEAM	DEPARTMENTAL	EXTERNAL	EVALUATION REPORTS
Four	**Dr OB Maqgaza** **ECDE** **Director Policy and Research** **Cell 082 370 9813** **Ph: 040 608 4683** **ob@edumhop.ecape.gov.za**	**Prof H Glover** **Associate Prof.** **Maths Educ. UPE** **Cell: 0828094296** **maaohg@upe.ac.za**	**Grade 10.12 Learner Readiness Study** **And** **Grade 10/12 Educator Study**

Task Details

*You will be supplied with a copy of the expected format of the report
*You will be supplied with a hard copy of the report
*You will be supplied with an electronic version of the report – either through the e-mail, or on CD (often Quantitative Reports are difficult to e-mail successfully due to the many tables)
*Reference Group Members who are in Port Elizabeth will receive their report and CD by courier services
*You are not expected to comment on the design, layout, spelling etc – there is an editing team who are seeing to this. You may however mark on the hard copy where there are obvious mistakes – since all input will be useful as we finalise the report for publication
*Please concentrate on the research design, the methods and techniques used, the reporting technique and the suitability of the content of the report.
*Please make recommendations on two levels:

- How the report presented can be improved
- How the design, methods etc can be improved in Year 2.
- You will be expected to return the hard copy of the report so that any editing or margin notes can be attended to.
- You may keep the electronic version.

<u>The time frame</u>

The turnaround time for input into **each report** should not be more **than 7 consecutive days (14 days in all for both reports)**

Thank you in anticipation
Yours in quality education delivery

Noeleen Barry
Imbewu II Evaluation Project Co-ordinator

IMBEWU II PROGRAMME COMPREHENSIVE LONGITUDINAL EVALUATION

REFERENCE GROUP REPORT ON GRADE 10-12 LEARNER PREPAREDNESS STUDY

Introduction

As set out in the task details this report will comment on

- the research design, which includes the research purpose, literature review and operationalization of key concepts and methods employed
- the nine instruments designed for data gathering
- the research findings
- the suitability of the content of the report as well as recommendations for the way forward..

Research design

- The report clearly sets the context of the research as being related to the problem with poor matriculation performances within the ECED system. The problem definition would be strengthened by providing some statistical evidence (since it is available), showing the nature and extent of the problem. It could also show if there are any variations across districts and particularly the three districts included in the research.
- The purpose of this study (2.1.1.) seems reasonable in that is seeks to begin a process of developing and refining instruments. These are intended to assist the ECED in improving the quality of teaching and learning in FET schools, by assessing learner readiness and comparing such readiness over time. Such instruments might also assist in tracking project effects.

However the executive summary (p1) states "this extensive baseline research…. was designed to ascertain, evaluate thereby verify key indicators that can be used as a point of reference to determine the cause of unsatisfactory performance in final matriculation". There are two concerns.

Firstly there does not seem to be a congruence of purpose as read in the executive summary and the body of the report. Secondly if key indicators need to be verified what are these indicators? Do they exist?

- It is also unclear how this study aims to interface with the other IMBEWU studies and particularly how they intend to comply with the principle laid down for the evaluation process, namely that the studies "make use of existing data sources" (see 2.1 p 5)
- Three hypotheses are said to underpin the study, namely

  Identifying preparedness benchmarks

  Three year intervention

  Cultivate effective learning skills

No case is made out as to why these hypotheses are both reasonable and of a high priority. It seems important that this should be done and that such hypotheses concur with the ECED's views regarding the issue of addressing the lack of learner readiness in the FET band.

Furthermore two of the assumptions are related to how the lack of learner readiness should be addressed. It seems that such assumptions relate more to addressing the problem of poor performance in the matriculation or equivalent (FET) future assessments. Since this report focuses on learner readiness do these two assumptions not move beyond the brief of the study? Or is it that this report is the first stage of a broader process, hence these assumptions. Should these distinctions not be made?

- It is a matter of some concern that the research process is not underpinned by a sound theoretical basis. Whilst there are limited references given in the report, at no time is there an attempt to survey the international or local literature for determining current theories and understandings of fundamental issues such as the

notions of learner readiness, the assessment of generic, language, numeric and spatial competencies and possible methodologies for differentiating levels of thinking/reasoning demanded within different contexts.

Certain key notions/ideas, for instance “thinking”, “problem solving”, “profieciency” and “learning skills” seem to be used rather loosely throughout the report. For instance on page 2, para(5) there is a reference to key learning skills (thinking in words, spatial perception and thinking in numbers) and on page 10 there is reference to “thinking skills in problem solving”, and later reference to “thinking skills and problem solving” (line 3) and to “learning skills”. A clarification and defining of these concepts will then place the design of the (?) related to words, space and number on a sound research footing. Key to the development of a well grounded research report is the development of clear definitions related to key terms. The mixing of workd (1.2.(2)) learning skills development in all three of the key skills (what are these – stated page 2 under (5)), 1.2.(3) develop their thinking and problem solving skills.

- Furthermore some motivation why, according to piii, explain why at the lower levels in the system a more interpretive report is required. Explaining this position which seems to be a global principle, will assist any reader of the report. The nature of the universe defined for the problem being investigated and the subsequent sample chosen plays an important role ensuring scientific rigour. One therefore needs to give a clear description of how sampling was undertaken.
- On page 8 it is stated the sample was pre-determined – by whom? Any particular reason? One assumes there must be some logic to the selection of districts, schools and classes – what was the logic? It would also seem, based on the diversity, within the system that some form of deliberate stratification will be necessary in seeking to understand learner readiness across the whole Eastern Cape?
- On page 11, first paragraph under 3.1 it mentions the wide variety of contexts that the learners are drawn from. It does not however seem from reading the report

that this stratification was deliberately pursued. Or was it? Are we correct that this survey is limited to schools and learners whose home language is Xhosa? If so, why?

- With reference to the tests that have been developed it is unclear how these tests were developed. Have they been sourced from somewhere? If so whose tests are these and for what purpose were they designed? If not, what was the process opf design. Designing the tests needs to be based on theoretical principles derived from the literature and the research design that flows from the stated research purpose. Furthermore it would be important to state how these tests might be developed so as to ensure reliability, validity and develop stadardization. One does read that the fluency test was "based on tertiary research", but no reference is given.
- The nine different types of tests on the key areas of words, pictures and numbers hold much potential. However, since the notions linked to each of the categories words, pictures and number (eg. for words we have reading speed, comprehension, word completion and summarising) are not analysed in terms of their cognitive demands it is not possible to either critically analyse the test design or interpret the results.

For instance one would expect that comprehension is not as cognitively demanding as summarising but the results suggest some, but very little, difference in performance in this area. How do we understand this minimal discrepancy? Is it possible that the notion of comprehending and summarising have not been clearly defined? Is it also then possible that the design of the instrument is consequently affected?

Design of Instruments (para 2.2.2)

Word thinking *(page 5)*

The opening sentence should read – "The first four thinking skills tests assess proficiency in language" This is fine but the notion "proficiency in language" is very wide. "We feel there is a need to provide a taxonomy related to "proficiency in language" in terms of –Bloom where the domain applied (or another suitable taxonomy) - as has been mentioned in test 4 – (the word comprehension is related to the skill of summarizing).

This seems a reasonable start. Does Bloom not have 6 cognitive categories?

Word speed (Test 1)

The most critical aspect of the word speed test in our view is the choice of passage. Clearly complexity of sentence structure, length of sentence and word size all play a role in readability. It is questionable that we can assume comparability between the Grade 10 and 12 tests unless some equivalency can be established.

Comprehension (Test, p6)

- We feel that the very weaknesses of multiple choice features mentioned in this report could be negated if there is some description of how these items "were a product of adequate quality development" a statement made at the end of this section. Since there are only four questions in this test there is a concern that this low number of questions makes the test very sensitive to poor item construction. The warning in the literature is not referenced.

Cloze test (Test 3, p6)

- When studying the test in the attachment it does not have the features of a C-test. Can this be explained? Which research informs that the C-test is an alternative to a cloze test.

Numeracy thinking

Numeracy (Test 8)

- It is stated that these tests were not designed to test mathematical proficiency, but in each of the Grade 10 (4 items) and Grade 12 (3 items) test there are items that clearly test skills proficiency in the context of fractions. Three of the Grade 10 items, namely 8.2, 8.3 and 8.5 are matched Grade 12 test by 8.5, 8.6 and 8.7 in the while 8.8 in the Grade 10 test is unmatched in the Grade 12 test.
- The Grade 10 and 12 tests cannot be viewed as equivalent as they differ in a number of respects. These are

- They are of different lengths, the Grade 10 test containing 8 items and the Grade 12 test containing 10 items
- They have uncommon items
- 5 of the items are common to both tests, while 1 item (8.6/8.4) is similar, but has a different structure
- 2 of the items in the Grade 12 test might be unreliable, namely 8.3 and 8.9

Consequently the claimed determination of mathematical skills between Grade 10 and 12 must be provisionally challenged.
In the context of our understanding of numerical problem solving none of the fraction or number pattern items could lay claim to requiring problem solving, since they test fairly routine mathematical skills (Bloom level 2) all of which are found in the GET (senior phase).

Questions like "How many unit fractions are greater than 1/5?", assuming the concept of unit fraction is understood or "How would you share 5 pizzas between 8 people" might move one closer to testing problem solving skills. There are also then ways of assessing problem solving competencies based on such or similar questions.

Number problems using words (Test 9)

Similar comparison can be made for the "Thinking in numbers and words test" for Grade 10 and Grade 12. The Grade 10 test has 7 items the Grade 12 test has 5 items. 3 of these are identical, namely 9.1, 9.2 (Grade 10) with 9.1, 11.3 (Grade 12, 11.3 should be 9.3) respectively and 9.7 (Grade 10) with 9.5 (Grade 12). Furthermore the Grade 12 test provides an e) option in every question which affects the 'guess factor'. Clearly these tests are not comparable.
We would suggest that the sections "Background and context", "Partnerships", which includes the process of setting up and administering the tests be reported under section 2.2.4 and not 2.2.5.

The process of coding information and then aggregating the information into the classification categories from what we have read is not clearly spelt out. The process including:

- Transfering test scores onto a spreadsheet per class, recording data by pupil and test
- Reducing the information to performance by quartile, resulting in the tables showed in the appendices. Please note that the (?) 1-4 was used with no explanation.
- Obtain an aggregate score for each category by Grade. It is not clearly stated how this aggregate was achieved. The average for any grade could be obtained by using the raw totals by classification category as a percentage of the total Grade size or as an average of the percentages by classification category and test. These results would be different bsed on the severity of the difference between class sizes and performance of each class. This will need to be looked at a little more closely. Our sense is that averages of percentages would be better as it then uses the class as a unit of analysis advice might be needed in this regard.

We suggest that limitation to the study should appear after the findings have been given.

It seems that the whole of paragraph 3.1 (? Paragraph) would be better if integrated into the section that deals with research design.

para 3 – we don't understand what is stated is achieved in the test design and find the paragraph difficult to understand.

Findings

All of the information tabulated and represented graphically in the report from page 13-21 rests on the key data given on pages 15 and 16. This data is derived, based on our

interpretation from the information recorded by school and Grade in Appendices 6.9 and 6.10. As mentioned before we would suggest that the process of tabulating the data in Appendices in 6.9 and 6.10 be clearly explained as or similar to the manner are reflected when reporting on coding info. We also suggest that the tables and graphs on pages 15 and 16 appear first. Then the tables on pp 13,14, 17-21 can be given. The graphs on page 15 & 16 are so key that some colour might assist in us realizing the results.

There needs to be a consistency of how that data is represented in the tables. Either all numbers must be rounded to the nearest whole number of correct to one decimal place. One should not allow both as is the case in the report.

The concepts "needing help" and its complementary should be defined in the coding section. There is then no need to repeat related notions such as "accredited readiness" as is done under the notes on pages 18-20.

One questions whether the information listed on pages 13 and 14 adds anything to source data shown on pages 15 and 16. Here it is equally clear that the category "word speed" has an "increasing" pattern while all the other categories have a "decreasing pattern". Put another way: Whilst the majority of learners are accomplished or exemplary in terms of their reading speed the exact opposite is true for every other category. The argument then advanced on page 17, based on a comparison between comprehension and reading speeds, that word speed is not valid seems a little tenuous. Our understanding is that both these scores could be valid, based on the fact that they might measure the concept defined. It is however clear from this data that reading skills is no predictor of comprehension ability.

The results for the (?) category, particularly for Grade 10 (page 15), require some interpretation. They seem to stand out as a little different.
Further it does not seem appropriate to show the contrast between reading skills and the other constructs on a continuous graph. Since this data is discrete this seems an inappropriate form of representation. A bar graph of all nine categories would clearly

demonstrate that “speed of reading” is the “odd one out”.

There also seems to be less variation in scores in the 8 non word speed categories. Again some interpretation might be helpful. Many of the totals in the notes on pages 18 – 20 don’t seem to agree with the tabulated information.

We have a serious concern with the comparisons made on pages 21 – 23. As has been stated earlier we have some doubts that the tests used are comparable. If it is insisted that such a case be made out then notions of equivalence will have to be established.

Some more detail must be given to describe how the tables and graphs, that link a key category (eg words) with other key categories, were produced.

The graphs on page 28 – 30 are helpful. The fact that 2 of the Grahamstown schools in Grade 10 seem to need significantly less help in numbers, that one of these schools in Waters seems to stand out and that the same school features so well in numbers for Grade 12 cannot go unnoticed.

Suitability of the content of the report and recommendations

We would suggest that this report be carefully analysed and that then on the basis decisions taken by the IMBEWU authorities this report and any future reports be developed on the basis of what hopefully will be a growing consensus about the nature and quality of the research desired for this project. One recognizes that much effort has gone into this research and clearly there are foundations to build on.

Given the fact that many universities and other agencies concerned with learner performance have also developed tests along the lines being used in this research it is recommended that discussions be held with people who have developed significant expertise in the area of testing.

We are more than willing to provide further assistance in ensuring that we can support the process going forward.

Prof Hugh Glover
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Dr OB Magqaza
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Department of Education
Province of the Eastern Cape

Acknowledgements

Conceptualisation and Development of the Evaluation Framework	Mr J Shotton and Mrs N Barry: Education Management Consultants
Design development, conducting of study and writing of report	All Saints Education Development Trust
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Co-ordination of the Imbewu II Evaluation Process	Integrated Business Services cc.
Focus Group Chair	Mr E Katshaza: Chief Education Specialist Quality Assurance
Respondents	Learners in Grade 10 and Grade 12 from selected sample schools in East London, Libode and Grahamstown districts.
Quality Assurance	Imbewu II Evaluation Reference Group and the Evaluation Steering Committee
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