WCED GRADE 8
Assessment Tasks 2006

Preliminary Findings
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Social science that makes a difference

HSRC
Human Sciences
Research Council

Purpose & Roles

2006	2004-2005
• Continuation of Grade 8 Assessment Tasks:	1. Australian design:
• Maths; Home Language [E & A]	2. Maths, language [E & A]; MCQ only
• International Benchmarking	3. Instruments multi-country - but not intnl benchmarked
• NCS – linked	4. Not NCS linked – for Pacific Rim
• Grade 10 – predictive?	
	☞ WCED –
☞ HSRC –	☞ administration, CEMIS data (learner ID and biodata)
☞ instrument devt, analysis & reporting	

HSRC Instrument Development

Maths:
60% Multiple Choice
40% Constructed
    Response
- Significance of CR
- Language
    Accommodation:
    A & E versions
    Xhosa/AL learners

Language:
60% MC
40% CR
- Significance of CR
- Language
    Accommodation:
    Two parts: HL & LoLT
    HL: X, A & E
    LoLT: A & E only

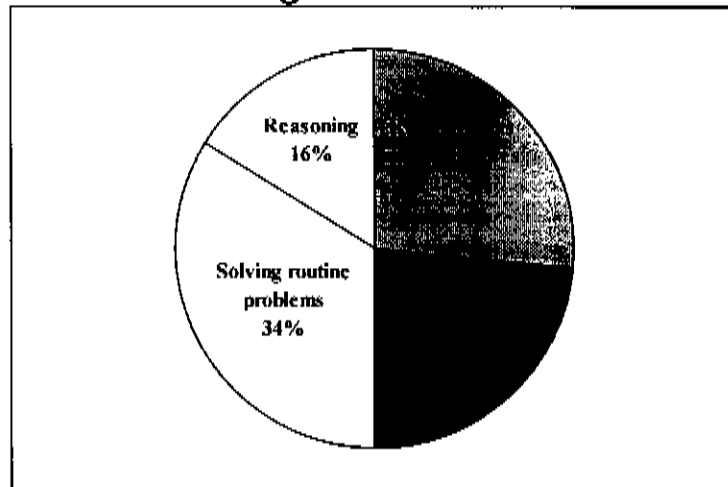# International Benchmarking and Standards Setting: Mathematics

International
benchmarking:
- TIMSS items for IB
    trending (22/54;
    41%)
- Based on NCS LOs
    - Intnl. standards
        based
    - MC & CR items

New standards setting
for SA assessment:
- Language
    accommodation for
    learners writing in L2
    (40% translated
    items)

Mathematics Instrument Design: cognitive domains

Reasoning
16%

Solving routine
problems
34%

International Benchmarking and Standards Setting: Language

Meeting international standards:
- Based on NCS LOs
  - Intnl. standards based
- Validity of Instrument
  - International validation:
    - Construct, content, diverse language accommodation
- International comparisons

Exceeding International Standards / Setting new standards

2 part instrument:
- HL & LoLT
- 3 X HL versions

Instrument Design- Language

HL

Comprehension passage – selected from literary sources originated in HL, at level typically used @ Gr 8

2 X writing exercises:

Paragraph & letter – to measure ability to construct, appropriately, a series of connected thoughts

LoLT

Passage from National Geographic
- Life Sciences (Biology)
- HSS (Geography, and History)

CR items – to control for MC guessing & measure productive vs. receptive lang. skills

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Administration & Logistics

Envisaged

Maths: 75 848

Xhosa: 18 062 (24%)

Afrik: 41 730 (55%)
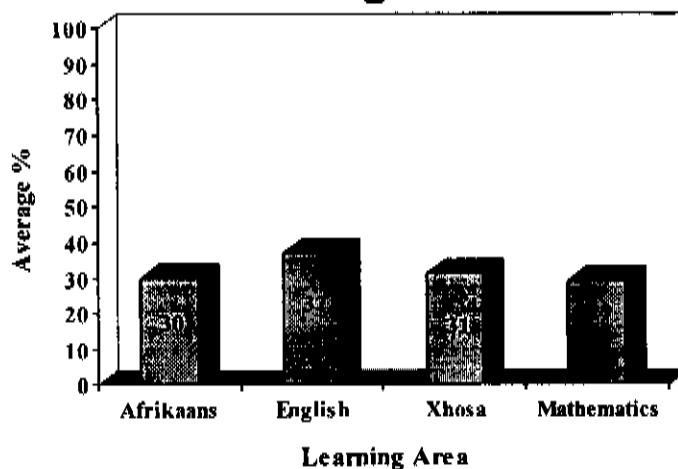
English: 15 493 (20%)

Only 50% Xhosa HL learners wrote XHL tests; 50% wrote EHL tests →

Actual

Maths: 75 000

Xhosa: 7 203 (12%)

Afrik: 33 112 (55%)

English: 20 172 (33%)
(8 500 still being processed)

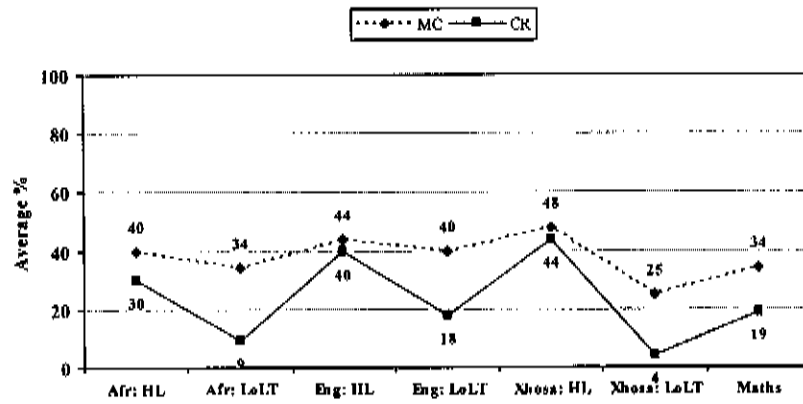Implications for: validity, & intl. benchmarking / stds setting

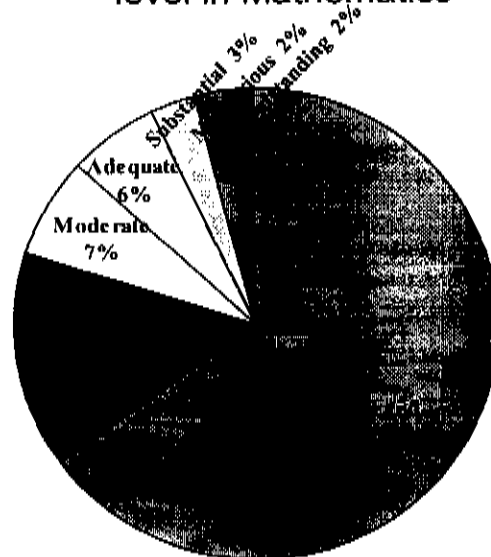# Provincial average scores per Learning Area

Reliability of Instruments

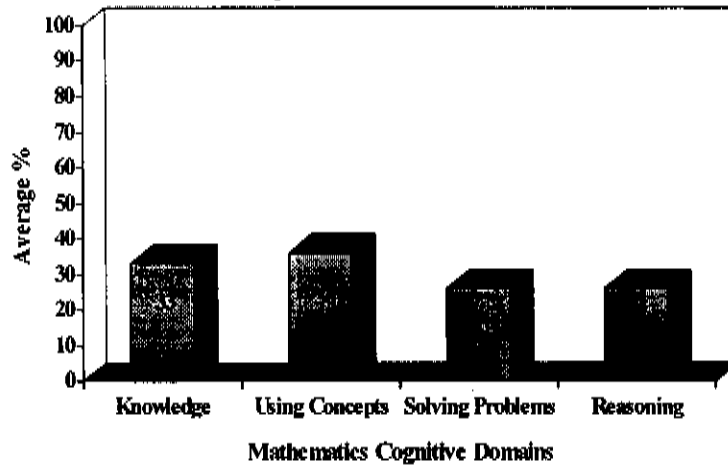| Learning Area	Alpha Coefficient
Language: Afrikaans	0,846
Language: English	0,899
Language: Xhosa	0,799
Mathematics	0,900

Comparison of achievement: multiple choice & constructed response items
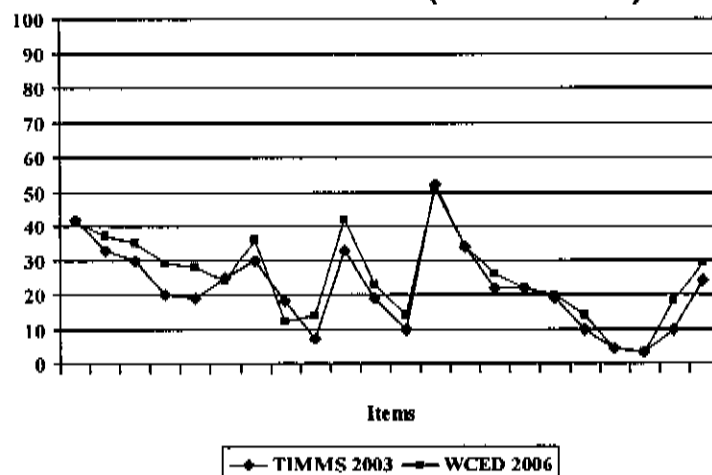

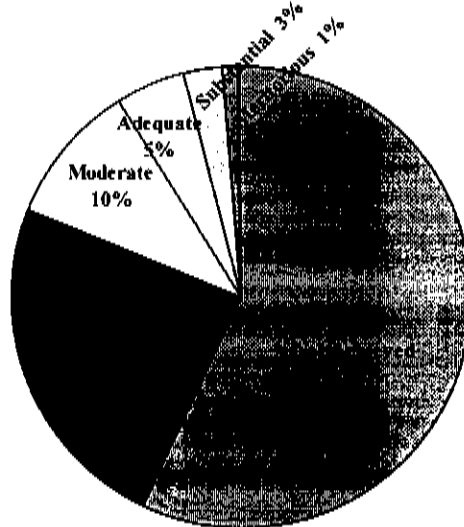## Percentage of learners at each achievement level in Mathematics
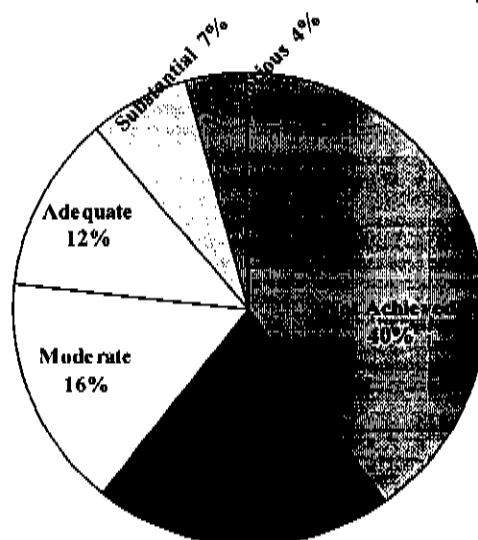
Mathematics achievement by cognitive domain

TIMSS items comparison: 2003 → 2006 (% correct)

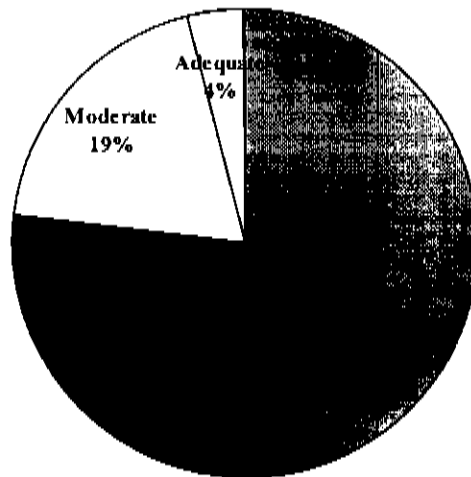**Percentage of learners at each achievement level in Afrikaans**

Substantial 3%   Serious 1%

Adequate 5%

Moderate 10%

Percentage of learners at each achievement level in English

Substantial 7%   Serious 4%

Adequate 12%

Moderate 16%

Percentage of learners at each achievement level in Xhosa

Adequa
4%

Moderate
19%

Language: Outstanding achievement

Meritorious
(level 6: 70-79%)
- Afrikaans: 306
- English: 750
- Xhosa: 0

Outstanding
(level 7: 80% +)
- Afrikaans: 52
- English: 152
- Xhosa: 0

Percentages of learners performing at or above specified levels (USA = 2005 Nat. Report Card; NCES, US DoE, IES)

Group	Proficient (SA Level 4-7; 51%+)	Basic (SA Level 3-7; 41%+)
WC English	23	40
WC Afrikaans	9	19
WC Xhosa	4	23
USA White	39	82
USA Hispanic	15	56
USA Black	12	52

Language achievement by Grade level of contents
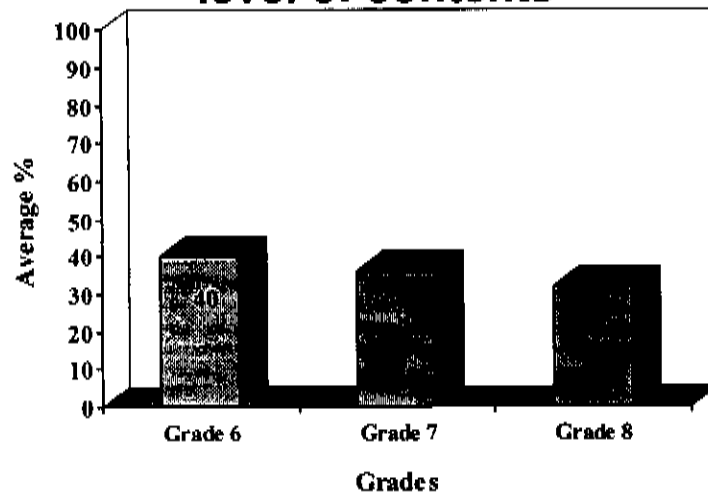
Limitations

- Difficulty to achieve both individual profiling / reporting & diagnostic / remedial contributions
- Population or all individuals are set @ the system as a whole or a sample
- Continuity / tracking = challenging
- Has high logistics, administrative & throughput costs for limited benefits to teachers/learner/parents

Short-term Recommendations: Strengthening Maths - Term 1 2007

1. Improve skills in basic calculations and operations
2. Improve learners' language ability by exposing them to Maths vocabulary
3. Focus on written work where learners show calculations
4. Concentrate on CR (and "applied") questions
5. Expose learners to questions that combine LOs
6. Teachers have to assist learners to do self assessment

Short-term Recommendations:
Strengthening Languages - Term 1 2007

Academic Literacy for HL and LoLT:

- Concentrate on building reading skills

  1. Variation of texts at appropriate reading level. CR questions, limit MCQs, close exercises

- Focus on writing paragraphs

  2. Build up sentence structure, logical sequence of sentences to parag level

- Teachers must score & teach learners to score using diagnostic rubrics

  3. Teachers & learners engage in scoring – will increase knowledge of structure