

Assessment *of* and *for* learning: Supporting teachers to improve education quality

Learning Counts: International Seminar on Assessing and Improving Quality Learning for All
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Key argument -

- **Cognitive indicators are currently one of the most critical indicators of education quality (recognising difficulty of measuring non-cognitive factors)**
- **Across many developing (& FTI) countries, rapid progress in establishing assessment systems**
 - **Number of international and regional organisations available for support**
- **However these assessments focus primary on information needs of policy makers**
- **To improve learning, we must support information needs of teachers**
 - **Recognising other education challenges**

Key argument - conti.

- Research evidence points to positive impact of assessment *for* learning
- Effective A for L practices need to be
 - cost effective to implement
 - require minimum teaching resources,
 - easy to understand & use,
 - easy to integrate into teaching practices,
 - do not necessary increase in work load
- For improving learning and learning outcomes, now is the time to implement these practices,
 - Assuming issues of curriculum, teachers, etc adequately addressed
- **Challenge** - to develop A *for* L aligned with current A *of* L systems

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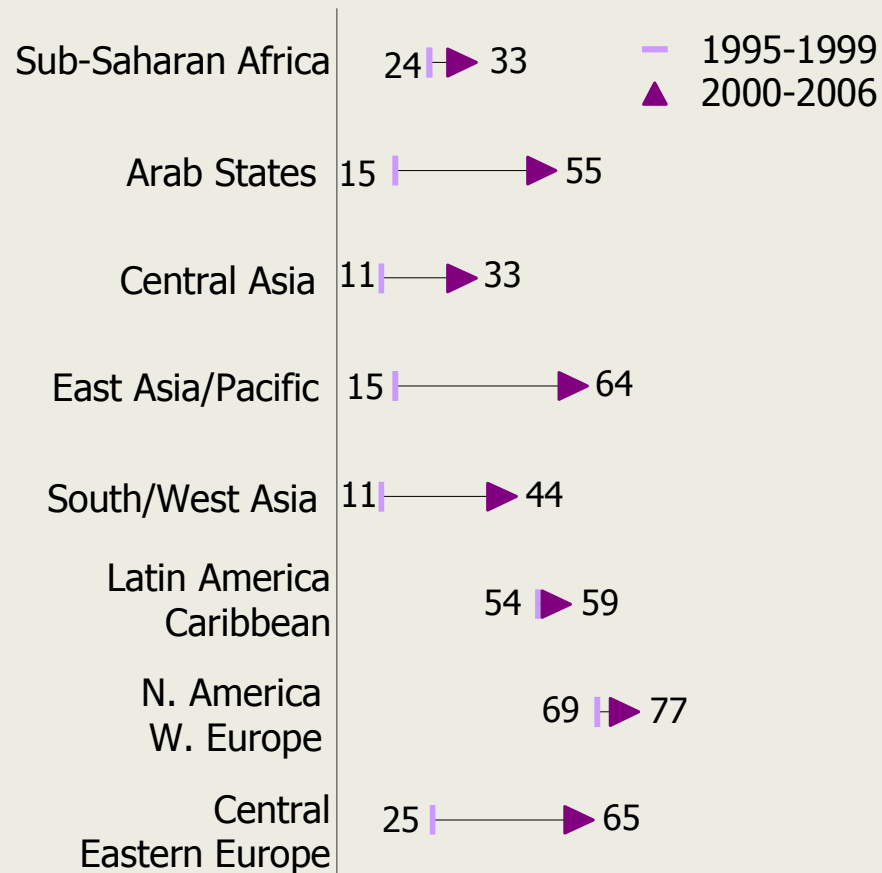


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Current assessment systems

- Increasing emphasis on measuring learning outcomes
- Greater focus on cognitive outcomes
- Increasing number of national assessments
- Evidence of improvement of assessment systems
- Existence of effective support structures
 - International/Regional organisations - IEA, Laborotario, OECD, PASEC & SACMEQ
 - “Private” organisations - ACER, ETS, CITO, HSRC, Universities, etc
- Information primary focussed at policy makers
- Limited focus on teachers and teaching practices

Increase in LSAS 1995/99 to 2000/06



% of countries that have carried out
at least one national assessment
between 1995-99 and 2000-06

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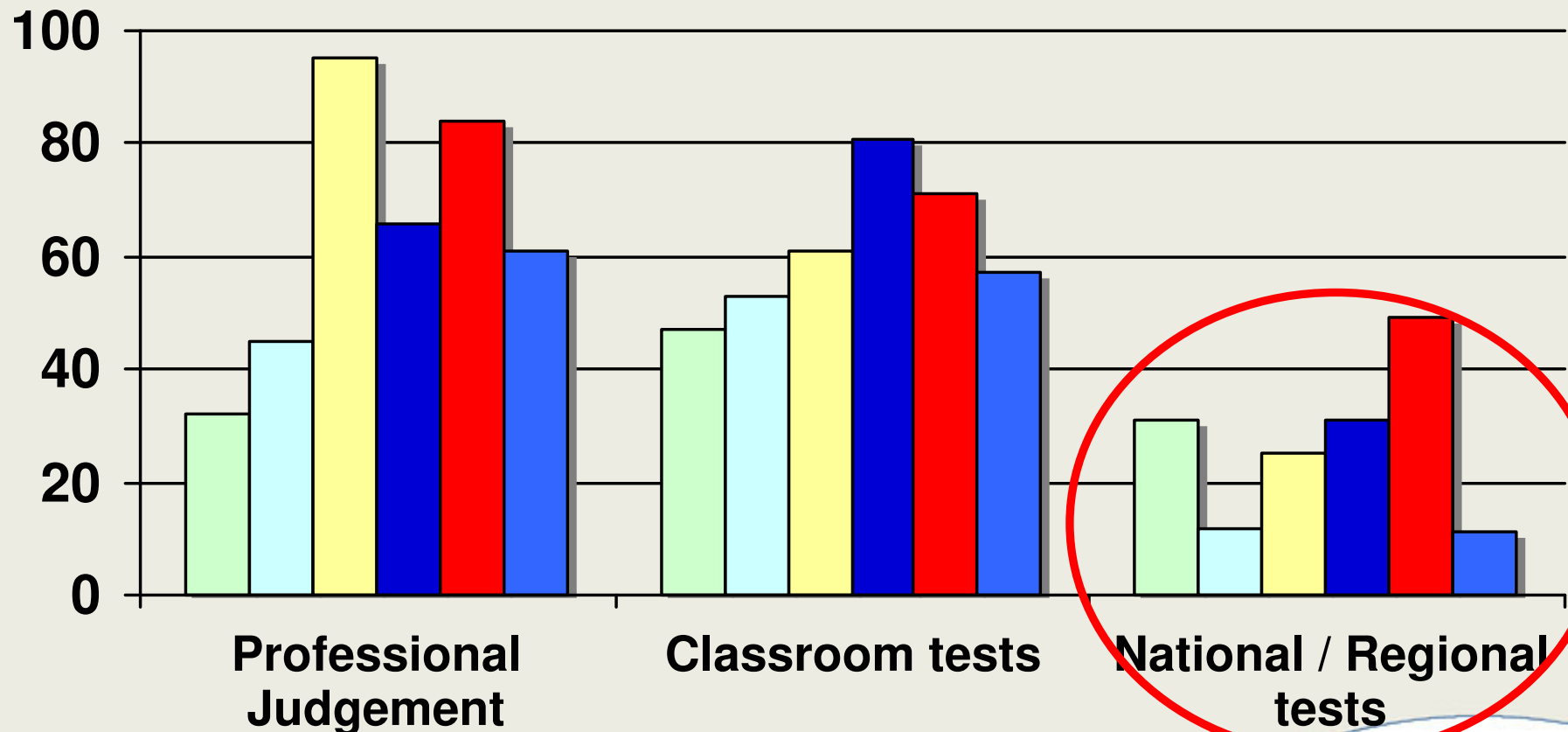


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Increase in National Assessments

QuickTime™ and a
decompressor
are needed to see this picture.

Teacher assessment practices



Grade 4 - PIRLS 2006

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For improving learning

- **Must support teachers :**
 - **Improve teaching and learning practices**
 - **Enhance classroom assessment practices**

- **Need appropriate tools and techniques for implementing *Assessment for Learning***
- **Base interventions on appropriate theories of learning**
- **Relevant curriculum reform**

- **Limited information on what strategies will work, under what conditions, etc**

What do we know about learning

- Learning is an active process in which self-monitoring and self-regulation are central
- Prior learning can help or hinder new learning and needs to be taken into account
- Learning is both an individual and a social process and is assisted by others (peers & teachers)
- Feedback on learning is important but learners need help and opportunities to improve.
- Motivation and a learner's sense of self are both a condition for, and an outcome of, learning and achievement
- Context within which learning occurs
- Curriculum is crucial in shaping learning

Benefits of A for L

Clear evidence on the benefits of assessment for learning

- Increase learning gains
- Greater participation and dialogue
- Improved teacher practices
- Improvement in learner performance

Assessment for Learning

...is a process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go, and how best to get there.

(Assessment Reform Group, 2001)

Comprises 4 key aspects

- **Making learning goals explicit**
- **Effective questioning**
- **Providing appropriate feedback**
- **Peer and self-assessment**

Key questions

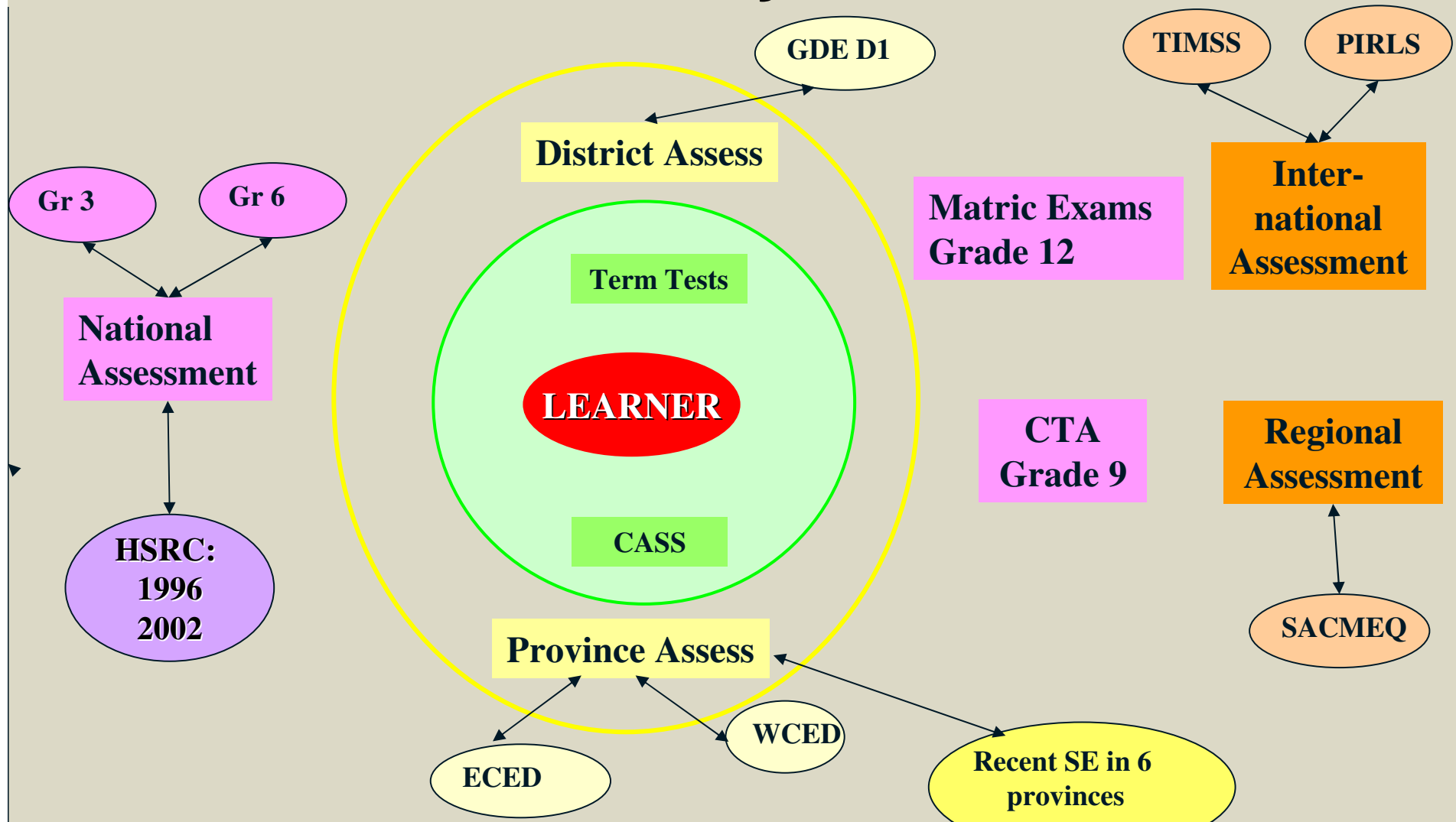
- **What are the practical (classroom assessment) strategies that we know will result in improving learning?**
- **how do we introduce these strategies to teachers, and ensure effective application?**
- **How feasible and cost effective are these new strategies?**
- **What will be the impact on teaching practice, learner performance and most important - improvement in learning?**

HSRC - MoE project

Develop & pilot an effective, integrated national assessment system to improve learning

- 1. Enhance teacher classroom assessment practices (A for L)**
 - ⑩ **Tools to conduct CASS - computers**
 - ⑩ **Teaching techniques**
 - ⑩ **Systems for reporting and using information**
- 2. National indicator framework to monitor performance of schools**
- 3. Grade 9 National Assessment Survey**

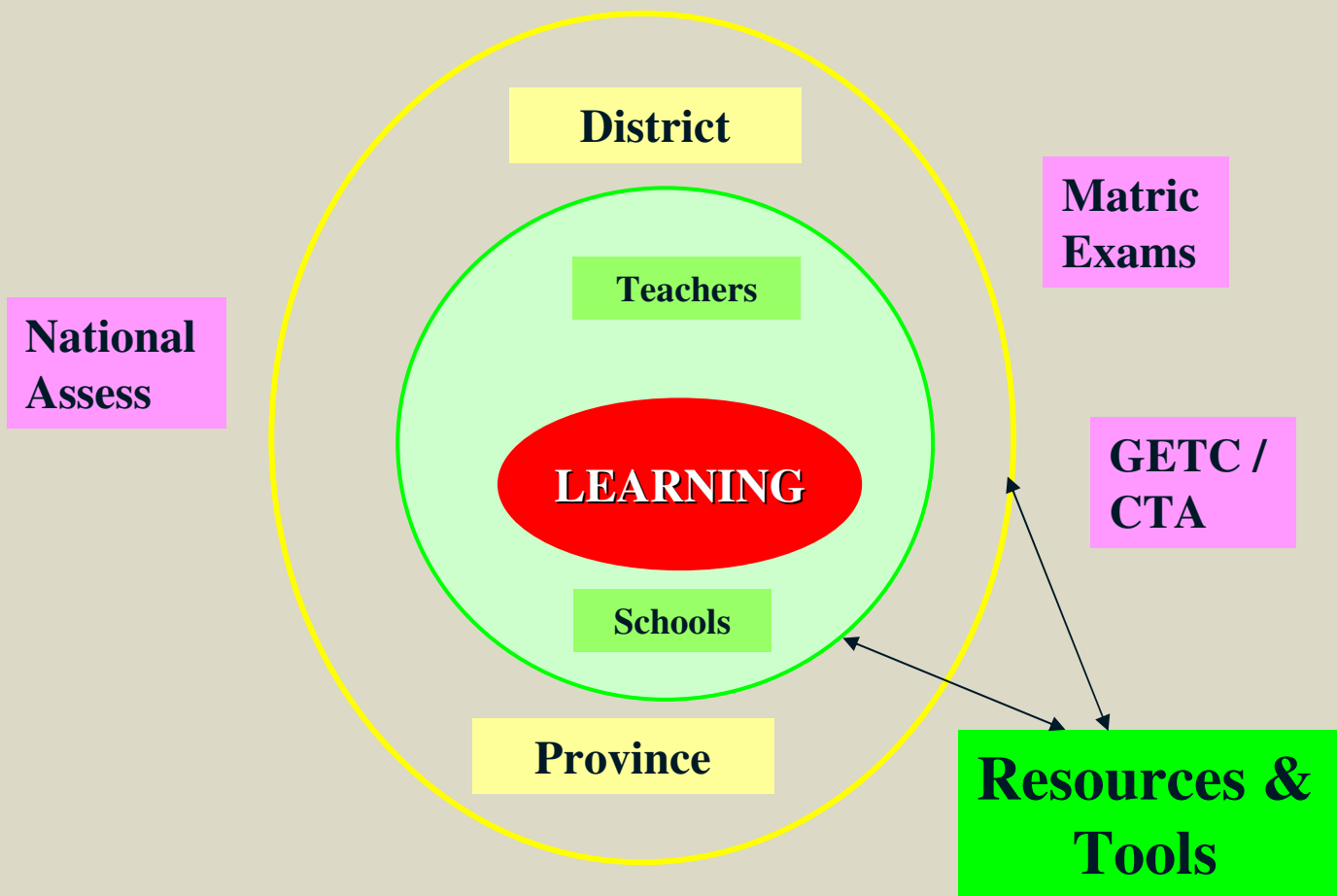
Current Assessment System Oct 08



**National Curriculum Statement
Learning Outcomes
Assessment Standards**

Integrated Assessment Model

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Inter-national Assess

Regional Assess

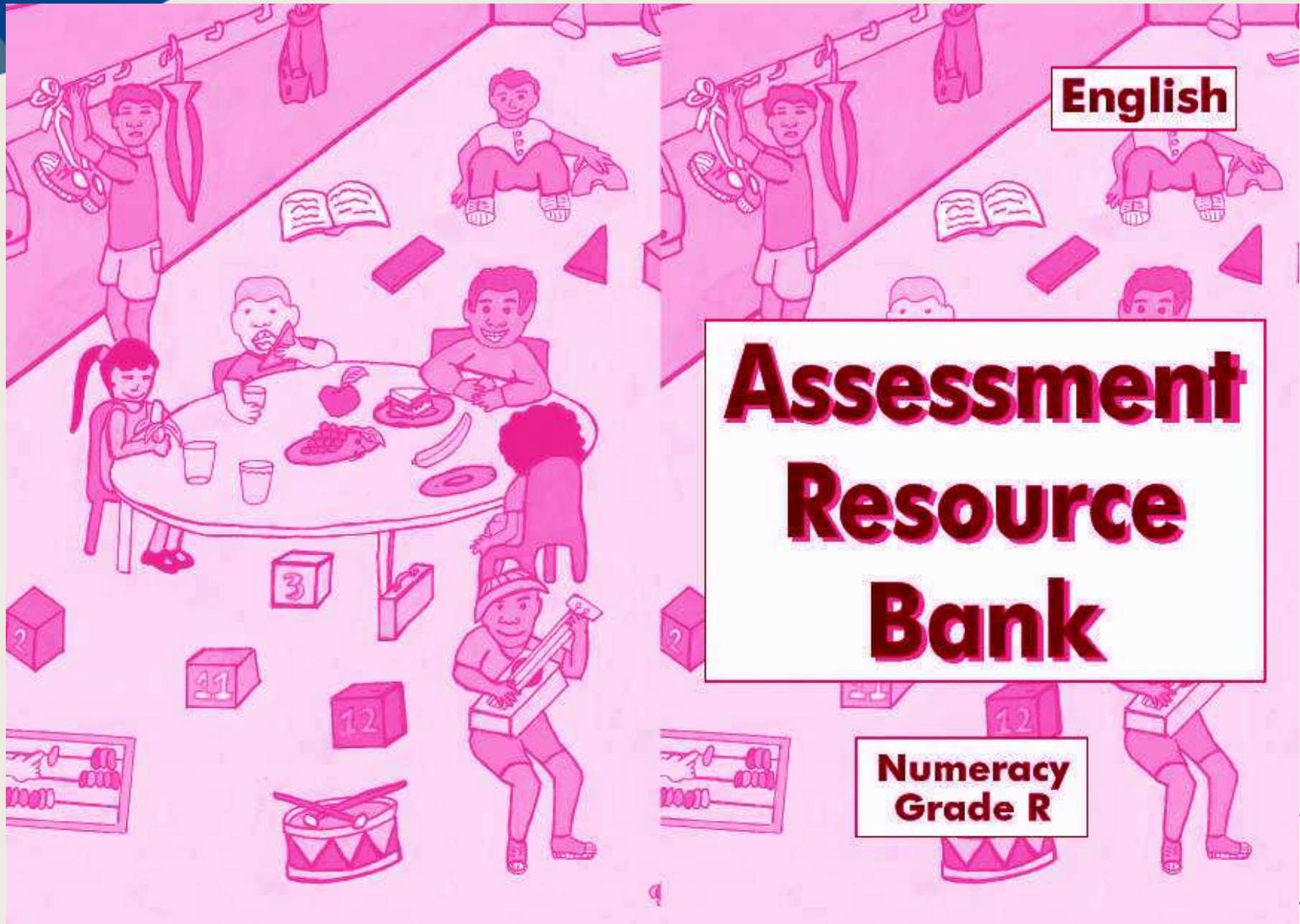
National Curriculum Statement (LO + AS)

Teacher tools / resources

EXAMPLE

Assessment Resource Banks

Developed computerised version



English

Assessment Resource Bank

Numeracy
Grade R



What are ARB?

- **A set of tasks - comprising different “testlets” used to assess specific assessment standards**
- **Tasks covers ALL assessment standards**
- **Teacher decides which tasks to administer**
- **Teacher decides when to administer tasks**
- **Administered within single period**
- **Easy to grade and intepret**
- **Available for Numeracy and Literacy**
- **Grades R to 6**

Learner Task 31

Name: _____ Date: _____

Complete the following: (show number sentence).

- 1 a) One hour is equal to _____ minutes.
 b) Three hours are equal to $60 \times 3 =$ _____ minutes.
 c) Five hours are equal to _____ = _____ minutes.
- 2 a) One week is equal to _____ days.
 b) Five weeks are equal to _____ = _____ days.
- 3 a) One day is equal to _____ hours.
 b) Half a day is equal to _____ = _____ hours.
 c) Five days are equal to _____ = _____ hours.
 d) One day is equal to _____ half hours.
- 4 a) One minute is equal to _____ seconds.
 b) Ten minutes are equal to $60 \times 10 =$ _____ seconds.
 c) Seven minutes are equal to _____ = _____ seconds.
- 5 a) One year is equal to _____ days.
 b) One leap year is equal to _____ days.
 c) One year is equal to _____ weeks.

Task 31

Learning Outcome: 4

The learner is able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard

The learner converts between:

Minutes - Hours
 Hours - Days
 Days - Weeks
 Months - Years

Skills

Estimation and calculation.

Reasoning and communication.

Degree of difficulty

Easy	Moderate	Difficult 3
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Equipment and administration

- Write Learner Task 31 on the board or hand out copies of the task to learners.
- Explain the instructions to the learners (see instructions on Learner task).
- Learners need only write the question number and the correct answer.

Scoring

Correct answers	Marks
1a) 60 minutes b) 180 minutes c) $60 \times 5 = 300$ minutes	1a) 1 mark b) 1 mark c) 2 marks
2 a) 7 days b) $7 \times 5 = 35$ days	4a) 1 mark b) 1 mark
3a) 24 hours b) $24 \div 2 = 12$ hours c) $24 \times 5 = 60$ hours d) $24 \times 2 = 48$ half hours	3a) 1 mark b) 2 marks c) 2 marks d) 2 marks
4a) 60 seconds b) 600 seconds c) $60 \times 7 = 420$ seconds	5a) 1 mark b) 1 mark c) 2 marks
5a) 365 days b) 366 days c) 52 weeks	6a) 1 mark b) 1 mark c) 1 mark
Total score:	20

Levels of performance

Score	Level
17 – 20	Fully attained
13 – 16	Satisfactorily attained
9 – 12	Partially attained
0 – 8	Not attained

Poster: Street Scene



Project gains & challenges

Significant improvement in teacher assessment practices

DIFFICULTY - effective use of information to provide feedback to learners improve learning

NEED to revise process to integrate into teaching practices

- **Assessment for Learning**
- Resource intensive - printing, distribution, etc
- Required significant training and support

Teaching practices

EXAMPLE

Questioning practices

Teacher questioning practices

- **Dominance of recall questions**
 - **Close questions - right or wrong answers**
- **Directed to**
 - **Mainly whole class or specific students**
- **Learners volunteer response - show of hands**
 - **“non-responsive” learners generally overlooked**
- **Minimum or no wait time for responses**
- **Teacher response (feedback) -**
 - **Praise**
 - **Redirect questions**
 - **Provides correct answers**

LIMITED cognitive engagement or learning opportunities

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Improving Questioning strategies

To enhance learner “cognitive engagement”

- **No hands up (only to ask questions)**
 - Encourages greater involvement of all
- **Create opportunities to reflect**
 - Increase wait time before responding to questions
 - Discuss response with a partner first
 - Write down responses
- **Rephrase questions**
 - into open-ended questions
 - Provide alternative answers
- **Training students to pose questions**

What next? Demonstration Project

- **To determine whether these strategies relevant to our teachers**
- **Determine how these strategies will work:**
 - with South African teachers
 - across the different school types
- **Identify implementation challenges**

and

- **Identify effect on learning and learner performance - using RCT**

For developing (FTI) nations

- **Continue to strengthened / improve National Assessment systems**
- **Need to develop / introduce systems for Assessment for Learning**
 - Teacher understanding of assessment & learning
 - Teacher tools & resources
 - Teaching practices
 - Curriculum guidelines & learning standards
- **Challenge - effective system to meet needs of both policy makers and teachers - I.e. assessment FOR and OF learning**

Contact Details

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Extra slides

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What do teachers need to do?

- **Seek & interpret evidence of existing learning & performance (especially through questioning)**
- **Provide feedback to help learners understand the strengths and weaknesses in their current performance, the standards aimed for, and how they might improve**
- **Provide opportunities for learners to improve their work**
- **Develop learners' own capacity to understand standards and to self-assess using criteria and exemplars**
- **These elements need to be *planned* as part of teaching**

What do students & teachers need?

- **Students need to know:**
 - where they are in their learning
 - where they are going
 - how to get there
- **Teachers need to know**
 - where students are in their learning
 - what to do about it
- **When assessment supports all these, it is formative**

Feedback

- **Comment-only marking**
 - **Comments to *cause thinking***
 - **What happens as a result?**
- **Focused marking**
- **Explicit reference to criteria**
- **Suggestions on how to improve**
 - **‘Strategy cards’ ideas for improvement**
 - **Not giving complete solutions**
- **Re-timing assessment**
 - **(eg two-thirds-of-the-way-through-a-topic test)**

Sharing criteria with learners

- **Explaining learning objectives at start of lesson/unit**
- **Criteria in students' language**
- **Posters of key words to talk about learning**
 - **eg describe, explain, evaluate**
- **Planning/writing frames**
- **Annotated examples of different standards to 'flesh out' assessment criteria**
- **Opportunities for students to design their own tests and marking schemes**

Peer and self-assessment

- **Students assessing their own/peers' work**
 - with marking schemes
 - with criteria
 - with exemplars
- **Identifying group weaknesses**
- **Self-assessment of confidence and uncertainty**
 - Traffic lights
 - Smiley faces
- **End-of-lesson students' review**

Applications of ARBs

- **As assessment tasks**
- **For lesson planning**
- **As examples in lessons**
- **As classroom exercises**
- **As homework exercises**

Advance applications of ARBs

Reflecting deeper understanding of assessment

- **As exemplars to develop their own items**
- **Use of posters to develop items**
- **Selection of specific items into classroom tests**

Critical Challenge

- **To provide teachers with:**
 - Information to identify learning needs of students
 - Support & resources/tools to improve learning
- **Teachers must have information:**
 - when they need it
 - for immediate use with current students
 - to integrate into teaching practices, specifically lesson presentation
- **To address both “formal” and “in-formal” assessment practices**

What we need ?

Strategies to support teachers

- **improve gains in learning**
- **Integrate in teaching practices**
- **Limited increase in workloads**
- **Easy to learn and implement**
- **Limited training required**
- **Cost effective to implement**