Purpose of presentation

- To share results of study conducted with SA teachers on their assessment beliefs, practices & needs
- To develop a strategy, informed by evidence, for implementing a computer based classroom assessment system in our schools
Acknowledgements

- Dr Cedric Croft,
- Dr Yusuf Sayed &
- HSRC research team
Working with Ministry of Education to develop and pilot an integrated national and classroom assessment system to support information needs of policy makers and teachers

- National Assessment of Learner Achievement – Grade 9 - policy makers
- Computerised classroom assessment system – teachers
Teacher Assessment Resources for Improving Instruction

- Provide teachers with high quality curriculum relevant tests on demand
- Diagnostic information on learner performance
- Ideas for intervention
Effect on implementation

Given large range of differences in schools ito:

- Resources & facilities
- Teacher experience and expertise in assessment
- Access to and use of computers
Design

- National survey – random sample of 269 schools
  - Teacher questionnaires - 629
- Site visits
  - Interviews - 30
  - Observations - 30
  - Document review - 30
  - Questionnaires - 115
Quintile 5 school
Key questions

• What are teacher beliefs and understanding of assessment?
• What is the level of teacher preparedness and available support for the use of assessment?
• What is the nature of teacher assessment practices
• What are the key assessment problems facing teachers? and
• How do teacher use computers to support their assessment practices?
Teacher beliefs and understanding
Use of assessment

- 58% of teachers agreed that classroom assessment was easy to implement & 9% disagreed (34% were unsure),
- Most teachers also agreed that classroom assessment was too time consuming (45%) while 30% disagreed and 25% were unsure.
## Importance of assessment

**Strong belief in importance of assessment**

<table>
<thead>
<tr>
<th>Assessment criteria discussed with learners</th>
<th>Crucial</th>
<th>Important</th>
<th>Limited importance</th>
<th>Not important</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>51</td>
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<table>
<thead>
<tr>
<th>Assessment of learner’s work mainly in the form of comments</th>
<th>Crucial</th>
<th>Important</th>
<th>Limited importance</th>
<th>Not important</th>
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<td></td>
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<td>45</td>
<td>32</td>
<td>10</td>
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</table>

<table>
<thead>
<tr>
<th>View learner mistakes as learning opportunity</th>
<th>Crucial</th>
<th>Important</th>
<th>Limited importance</th>
<th>Not important</th>
</tr>
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<tr>
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<th>Crucial</th>
<th>Important</th>
<th>Limited importance</th>
<th>Not important</th>
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<tr>
<td></td>
<td>12</td>
<td>55</td>
<td>23</td>
<td>10</td>
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</table>
Analysis of interviews

- Greater involvement of parents 25 teachers (83%).
- The best uses of assessment are to improve learner performance - 11 teachers (37%).
- 5 teachers (17%) noted that continuous assessment was suitable for both formal and informal assessment.
teacher preparedness and available support
Sources of additional information on assessment

- Teachers: 49
- Books: 47
- HoD: 46
- LA Specialist: 36
- Principal: 18

Social science that makes a difference
Interviews

- Support by HoD reported by 27 teachers (90%) - HoD’s visiting classrooms, providing feedback - weekly or at least once a term.
- Regular Phase meetings - 19 (63%)
- 7 (23%) - principal playing a similar role, but with less frequent visits.
Interviews

From outside the school the picture of the support offered was quite fragmented.

- Support from Learning Area Specialists (district) from the district office – 6 teachers (20%),
- However, 17 teachers (57%) - visits from District officials were yearly / irregular or had not taken place
- Support from cluster meetings, workshops by NGOs or the DoE and partnerships with other schools were stated by between two (7%) and four (13%) respondents respectively.
Teacher assessment practices
Who develops the tests?

Mainly by teachers themselves
Item formats typically used

Mainly open ended questions
Cognitive demand of tests developed

Mainly knowledge application questions
<table>
<thead>
<tr>
<th>Frequency</th>
<th>Class tests</th>
<th>Classwork</th>
<th>Projects</th>
<th>Homework</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a term</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Once a month</td>
<td>13</td>
<td>0</td>
<td>61</td>
<td>4</td>
<td>25</td>
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<tr>
<td>Twice a month</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td>7</td>
<td>12</td>
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<tr>
<td>Weekly</td>
<td>34</td>
<td>21</td>
<td>7</td>
<td>50</td>
<td>12</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
<td>72</td>
<td>2</td>
<td>26</td>
<td>6</td>
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</tbody>
</table>

Regular use of classwork, projects & homework
Frequency - recording of results

Majority – weekly or monthly recording
# Frequency and use of results

<table>
<thead>
<tr>
<th></th>
<th>Feedback to learners</th>
<th>Diagnose learning problems</th>
<th>Group learners</th>
<th>Report progress to parents</th>
<th>Assign extra homework</th>
<th>Evaluate curriculum coverage</th>
<th>Evaluate teaching methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>0</td>
<td>16</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes</td>
<td>20</td>
<td>37</td>
<td>52</td>
<td>16</td>
<td>58</td>
<td>21</td>
<td>38</td>
</tr>
<tr>
<td>Always</td>
<td>76</td>
<td>59</td>
<td>40</td>
<td>84</td>
<td>26</td>
<td>73</td>
<td>57</td>
</tr>
</tbody>
</table>
Document review & interviews

- No evidence of useful comments in learner notebooks or teachers records
- Essentially for this group of South African teachers classroom assessment is seen as a relatively formal process of recording marks for class work, or some other summative indicator of performance in the classroom.
- The broader meaning of classroom assessment seems not to have been adopted.
Frequency & type of teacher comments

Limited evidence of relevant comments to Improvement in support learning
Assessment problems facing teachers?
National assessment policy was seen as unclear or confusing by 9 teachers (30%) and involved too much paper work for six (20%)

However, these views are balanced out by 9 teachers who described the national policy as satisfactory.
Interviews – key problems

Time related issues – major problem

- Portfolios and peer assessment for 6 respondents (20%),
- 7 teachers (23%) - ALL assessment activities takes up too much time.
- 4 teachers (13%) that assessment detracts from learning time.

“There is a lot of paper work with lots of repetition and teachers are interested in teaching and cannot teach because of lots of recordings. The recordings take a lot of time, which is supposed to be devoted in actual teaching. There are a lot of things that need to be assessed which are not necessary.” (School 7, Grade 4, Teacher Interview: 08-10-2008)
Access to and use of policy docs

Majority have access but do not use documents
Use of computers
Teacher use of computers
### Use of computer for assessment

<table>
<thead>
<tr>
<th>Use of computers for:</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing reports</td>
<td>83</td>
</tr>
<tr>
<td>Keeping records</td>
<td>79</td>
</tr>
<tr>
<td>Developing class tests</td>
<td>73</td>
</tr>
<tr>
<td>Lesson planning</td>
<td>51</td>
</tr>
<tr>
<td>Classroom presentations</td>
<td>32</td>
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</tbody>
</table>
Results by quintiles

- **Small to no** differences between “good” and “poor” schools wrt to their assessment practices
Frequency – use of class test

- **Very Poor**: 16.0% Never, 7.4% Sometimes, 91.0% Always
- **Poor**: 84.0% Never, 91.7% Sometimes, 91.0% Always
- **Average**: 92.3% Never, 7.7% Sometimes, 92.3% Always
- **Fairly well to do**: 70.4% Never, 29.6% Sometimes, 70.4% Always
- **Well off**: 70.4% Never, 29.6% Sometimes, 70.4% Always
Items types mostly used in class tests

<table>
<thead>
<tr>
<th>Type</th>
<th>Very poor</th>
<th>Poor</th>
<th>Average</th>
<th>Fairly well to do</th>
<th>Well off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostly CR</td>
<td>55%</td>
<td>38%</td>
<td>46%</td>
<td>31%</td>
<td>37%</td>
</tr>
<tr>
<td>Mostly MC</td>
<td>44%</td>
<td>60%</td>
<td>50%</td>
<td>65%</td>
<td>58%</td>
</tr>
<tr>
<td>Half CR &amp; MC</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Computer use by Quintile

Diff due to access to computers
Implications - 1

- Introducing the TARMII system in a manner that is aligned to, or enhances, the support systems and structures that currently exist for teachers across all quintile categories.

- Extending teacher practice of the use of assessment from merely the recording of marks to:
  - identifying learner strengths and weaknesses, and
  - providing relevant feedback for improving learning.
Ensuring that teachers fully understand
- the purpose and added value of the TARMII system,
- that the system is fully aligned to the National Curriculum Statements and
- can be readily integrated into their regular learning and teaching activities,

Enhancing teacher skills and confidence in the use of computers for improving their assessment practices.
Implications - 3

- Clearly demonstrating the value of the TARMII system in **reducing teacher workloads** with regard to:
  - producing high quality curriculum aligned classroom tests on demand
  - providing a mechanism for recording learner scores for use in monitoring learner progress over time,
  - ensuring that the reports produced provide relevant information for teachers to identify learner needs and to obtain ideas on how to address these needs, and
  - provide teachers with opportunities to review their teaching practices
Implications - 4

- Involved other teachers
  - Use of cluster meetings & support structures

- From school management – involved HoD in project implementation
Next steps

- Randomised control trials to determine impact of the computerised systems on teaching practice and learner performance
  - Begin in January 2010
  - 200 schools
  - 4 provinces

- Results available in early 2011
THANK YOU
Assessment & use of ICT
Teacher assessment practices

Grade 4 - PIRLS 2006