The Power of Assessment

... 

bridging the gap between teaching and learning!
Research shows:

“The quickest way to change student learning is to change the assessment system.”


“Gains in learning, triggered by formative assessment, are amongst the largest ever reported in educational interventions ...”

... all students benefit from classroom assessment, however the students showing the largest gains are those who struggle the most.”

Research shows:

“Classroom Assessment is an educational innovation that unites efforts to improve both teaching and learning.”

“... helping teachers to use classroom-based assessments more effectively can contribute both to their subject matter knowledge and their pedagogy …

... formative assessment can be a powerful, cost-effective tool for improving teacher effectiveness.”
Research shows:

“If you don't change assessment, nothing changes.”

Dr. Bernice McCarthy, About Learning Inc., Wauconda, I.L., U.S.A.

“Developing nations must develop strategies that will enable them to exploit the power of assessment to strengthen their education systems.”

How can assessment help teachers teach better?
How can assessment help learners learn more?
We need to turn around our TEACHING and begin with the end in mind!

Stephen Covey’s 2nd Habit of Highly Effective People
What is the end? *real* knowledge!

What is real knowledge?

- it is purposeful, authentic and useful – it allows you to do or achieve something;
- it is connected and integrated with your existing knowledge;
- it is accessible from different starting points;
- it supports, facilitates and promotes growth of more knowledge;
- it enables creative thinking and problem-solving;
- it changes your brain, changes your life and can change the world!
How do we produce real knowledge?

... with meaningful learning through effective teaching

... enhancing teaching and learning through innovative assessment
According to Professor Dylan Wiliam at the Institute of Education, University of London:

“All teaching really boils down to three key processes:

- finding out where the learners are in their learning,
- finding out where they are going, and
- finding out how to get there.”
“Assessment is the bridge between teaching and learning”

Professor Dylan Wiliam, IOE, University of London: 2011

“Assessment occupies such a central position in good teaching because we cannot predict what students will learn, no matter how we design our teaching. Students do not learn what we teach.”
What can Rubricate PLUS offer?

Rubricate PLUS ... guides teachers through the planning, design and implementation of their classroom assessment:

- it informs and directs teaching practice;
- it develops, engages and improves learning;
- it bridges the gap between what teachers teach and what learners learn!
Rubricate PLUS is for TEACHERS
... it is a unique professional skills development tool developed specifically for teachers in South Africa

Rubricate PLUS is a CURRICULUM tool
... it is not an administrative tool - it is a grade- and subject-specific, CAPS-aligned curriculum tool

Rubricate PLUS promotes CAPS-adherence
... every assessment criterion for each grade, subject and term in the CAPS is included in the Rubricate PLUS programme

Rubricate PLUS supports curriculum change
... it keeps pace with the CAPS roll-out and is updated for each year until 2014
Rubricate PLUS is FLEXIBLE
... it is useful for all teachers - from the most inexperienced to the most proficient

Rubricate PLUS is a WRITING aid
... it produces professionally worded assessment plans, tools and records to document assessment strategies for a teacher’s work file

Rubricate PLUS is NON-PRESCRIPTIVE
... all Rubricate PLUS documents are fully editable and re-writable for unique lesson planning

Rubricate PLUS is a COMPUTER programme
... it has the added benefit of developing and improving computer literacy
Rubricate PLUS DESIGN

... assists teachers by providing on-screen access to assessment theory to advise and inform their decision-making.
... collates key decisions, identified choices and recorded notes to produce a Teacher Assessment Task Plan.

6. What assessment techniques will be used?
- test: selected response
- test: constructed response
- observation
- dialogue
- performance task
- created product

7. What assessment tools will be used?
- marking memo
- anecdotal record
- checklist
- performance list
- rubric: analytical
- rubric: holistic

8. Checklist of assessment principles to consider:
- Is it fair?
- Is it transparent?
- Is it valid?
- Is it aligned with curriculum?
- Is it aligned with teaching?
- Is it aligned with learning?
- Is it sufficient?
- Is it authentic?
- Is it practical?
- Is it engaging?

9. What instruction is needed in teaching/lesson plan?

Assessment Plan

Class: 9B
Grade: 9
Teacher: Mrs Butchart
Subject: Natural Sciences
Topic: Electrical Circuits

1. When will the assessment be used?
- pre-learning
- during-learning
- post-learning

2. What is the assessment purpose?
- diagnostic
- developmental
- summative

3. Description of the assessment task:
Drawings of simple electrical circuits are presented and the learner must make predictions as to what effects will be observed in each case based on their existing knowledge and understanding. Learner will be given circuit boards and electrical components which they will use to build the actual circuits and compare what they predicted with what they observe. Learners will write a paragraph to explain any discrepancies in what they predicted and what they observe. Different electrical circuit misconceptions are presented by the teacher and learners diagnose their own difficulties based on the discrepancies they discovered.

4. What are the criteria for assessment?
- predicting which light bulbs will light up in different electrical circuits
- inferring comparable brightness of light bulbs in different positions in electrical circuits
- setting up electrical circuits
- observing, measuring and recording effects in an electrical circuit
- comparing inferences and predictions with observations and explaining any differences in these

5. What learning targets will be assessed?

<table>
<thead>
<tr>
<th>Learning Target</th>
<th>Knowledge Target</th>
<th>Reasoning Target</th>
<th>Skill Target</th>
<th>Product Target</th>
<th>Dispositional Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interprets electrical circuits</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sets up electrical circuits</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyses experimental results</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands own understanding of electrical circuits</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
Rubricate PLUS DESIGN

... generates a complementary Learner Task Guide which actively engages the learner in the task.

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**Learner Task Guide**

| Class: 9th | Teacher: Mrs. Butchart |
| Grade: 9 | Term: 2 |
| Topic: Electrical Circuits | Subject: Natural Sciences | Date: 27 May 2010 |

**WHAT must I show that I KNOW and can DO?**

**I can:**
- interpret electrical circuits
- set up electrical circuits
- analyse experimental results
- understand own understanding of electrical circuits

**HOW will I do this?**

- I will be given drawings of simple electrical circuits and I must predict what effects I would expect to see if I was to set each circuit up and observe it.
- I will be given a circuit board and electrical components which I will use to set up the actual circuits.
- I will compare what I predicted with what I observe.
- I will write a paragraph to explain any discrepancies (differences) in what I predicted and what I observed.
- My teacher will present different electrical circuit misconceptions and I will listen and diagnose my own difficulties based on the discrepancies I discovered.
- I will complete the rubric to show my teacher how I think I have done.

**WHEN will I do this?**

I will do this in class on 27th May 2010 and I will hand in my work to my teacher before I leave the classroom.

**How will my teacher MEASURE what I know and what I have done?**

I have a rubric to measure:
- predicting which light bulbs will light up in different electrical circuits
- inferring comparable brightness of light bulbs in different positions in electrical circuits
- setting up electrical circuits
- observing, measuring and recording effects in an electrical circuit
- comparing inferences and predictions with observations and explaining any differences in these
Rubricate PLUS CREATE

... creates customised assessment tools – such as:

Rubrics

<table>
<thead>
<tr>
<th>Grade:</th>
<th>Subject: Natural Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task:</td>
<td></td>
</tr>
<tr>
<td>Name of Learner:</td>
<td>Term:</td>
</tr>
<tr>
<td>Assessor:</td>
<td>Date of Assessment: 14 February 2011</td>
</tr>
</tbody>
</table>

**PREPARED READING – ANALYTIC RUBRIC**

**TASK: Prepared Reading in Class**

<table>
<thead>
<tr>
<th>Name of Learner:</th>
<th>Term:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Assessor:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment Criteria</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
<th>Level 7</th>
<th>Learner’s Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td></td>
<td></td>
<td></td>
<td>Adequate fluency: some hesitation but speech is usually correctly interpreted. Reading somewhat monotonous through.</td>
<td>Good despite read: slightly inaccurate interpretation of meaning and complex sentences/paragraphs.</td>
<td>Himalynic, delivery of text is so stilted, hesitant, unclear, that meaning is severely obscured.</td>
<td>Usually able to read text with suitable fluency and coherence. Interprets pronunciation and syntax easily but can still experience difficulty with highly complex sentences/paragraphs.</td>
<td>Highly articulate, fluent. Punctuation and syntax of even the most complex sentences/paragraphs are accurately interpreted and clearly delivered.</td>
</tr>
<tr>
<td>Eye-contact</td>
<td>No eye-contact made with audience.</td>
<td>Limited eye-contact made with audience.</td>
<td>Adequate eye-contact made.</td>
<td>Good eye-contact made.</td>
<td>Constant, effective eye contact made.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice projection</td>
<td>Very poor voice projection; reading is inaudible to those at any distance. Words are hard to discern.</td>
<td>Poor voice projection; frequently inaudible.</td>
<td>Adequate voice projection; most of what is read can be heard, although not always clearly.</td>
<td>Good projection; well modulated and clearly audible.</td>
<td>Excellent projection; controls volume well and is able to reach even the farthest members of audience. Interpretative response.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audience support</td>
<td>Reading is boring and monotonous – audience are totally distracted and uninterested.</td>
<td>Reading has some moments of colour and variety, but audience attention is not sustained.</td>
<td>Audience are interested and engaged for at least half of the time.</td>
<td>Audience attention is generally sustained.</td>
<td>Reading captivates and delights the audience.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:
Rubricate PLUS CREATE

... creates customised assessment tools – such as:

Analytic Records, Rating Scales, Checklists and Performance Lists

<table>
<thead>
<tr>
<th>Grade: 10</th>
<th>Subject: Mathematics</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Task:</th>
<th>Subject: Geography</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Task:</th>
<th>Subject: Natural Sciences</th>
</tr>
</thead>
</table>

### Performance List

**Grade:**

**Task:**

**Learner:**

**Assessor:**

**Term:**

**Date:**

<table>
<thead>
<tr>
<th>Assessment Criteria</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
<th>Level 7</th>
<th>Learner's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinguishing between pure and impure substances</td>
<td>Not Achieved</td>
<td>Elementary Achievement</td>
<td>Moderate Achievement</td>
<td>Adequate Achievement</td>
<td>Substantial Achievement</td>
<td>Meritorious Achievement</td>
<td>Outstanding Achievement</td>
<td></td>
</tr>
<tr>
<td>Distinguishing between compounds and mixtures</td>
<td>Not Achieved</td>
<td>Elementary Achievement</td>
<td>Moderate Achievement</td>
<td>Adequate Achievement</td>
<td>Substantial Achievement</td>
<td>Meritorious Achievement</td>
<td>Outstanding Achievement</td>
<td></td>
</tr>
<tr>
<td>Distinguishing between elements and compounds</td>
<td>Not Achieved</td>
<td>Elementary Achievement</td>
<td>Moderate Achievement</td>
<td>Adequate Achievement</td>
<td>Substantial Achievement</td>
<td>Meritorious Achievement</td>
<td>Outstanding Achievement</td>
<td></td>
</tr>
<tr>
<td>Distinguishing between metals and non-metals</td>
<td>Not Achieved</td>
<td>Elementary Achievement</td>
<td>Moderate Achievement</td>
<td>Adequate Achievement</td>
<td>Substantial Achievement</td>
<td>Meritorious Achievement</td>
<td>Outstanding Achievement</td>
<td></td>
</tr>
<tr>
<td>Distinguishing between phases of matter</td>
<td>Not Achieved</td>
<td>Elementary Achievement</td>
<td>Moderate Achievement</td>
<td>Adequate Achievement</td>
<td>Substantial Achievement</td>
<td>Meritorious Achievement</td>
<td>Outstanding Achievement</td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

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... enhancing teaching and learning through innovative assessment
Rubricate PLUS CREATE

... encourages self-evaluation by producing ‘checkpoint’ forms for teachers to evaluate their created assessment tools in order to improve their skills.
Rubricate PLUS RECORD

... collects and collates learner achievements either as rating codes or percentages by means of a simple recording process.
Rubricate PLUS RECORD

... facilitates easy record-keeping, progress-tracking and reporting by producing Teacher Assessment Records for an Assessment File.

<table>
<thead>
<tr>
<th>Learner Names</th>
<th>Grade</th>
<th>Working in a group</th>
<th>Listening to peers</th>
<th>Teaching peers</th>
<th>Assessing peers</th>
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<tbody>
<tr>
<td>Genis, Ane</td>
<td>9</td>
<td>74</td>
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<td>Gillies, Dusty</td>
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<td>Greaver, Shaneigh</td>
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<td>Khumalo, Sifiso</td>
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<td>Mashishi, Khatso</td>
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<td>Michau, Leigh</td>
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<td>Mohle, Kyle</td>
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<td>Muzerrie, Matthew</td>
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<td>Nkosi, Chief</td>
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<td>Pappin, Craig</td>
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<td>Pietersen, Darren</td>
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<td>Pinker, Christopher</td>
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<td>Rautenbach, Johan</td>
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<tr>
<td>Stapel, Ingaborg</td>
<td>9</td>
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</tr>
</tbody>
</table>
Rubricate PLUS packages include self-guided training manuals, exemplars and professional references ...

Courses are endorsed by South African Council of Educators and accredited with professional development points.
Remember:

“The quality of an education system cannot exceed the quality of its teachers.”

*Sir Michael Barber, Global Educational Advisor: 2007*
“Using Rubricate is like having a mentor sitting next to you while you prepare your lesson, guiding you to good teaching practice.”
Roger Cameron—Headmaster, St John’s College, Johannesburg

In May 2012, **100%** of the 82 Gauteng Department of Education (Rubricate PLUS Orientation) workshop participants agreed that: “Rubricate PLUS enables teachers to reflect on, and improve their teaching practice”.

**78%** of these GDE **curriculum specialists** said that they had **gained knowledge and understanding** in order to improve teaching **that they did not have before working with Rubricate PLUS.**
In summary, Rubricate PLUS:

• enables a teacher to know what to teach in each term of the year for each subject for their grade according to the CAPS documents;

• enables a teacher to understand what learner performance on each of the seven specified achievement levels should look like;

• empowers a teacher to develop and improve their own professional skills in their classroom through the daily use of the tool in their teaching practice;

• inspires teachers to fulfill not only their role as a classroom assessor but also to increase their subject knowledge and to excel in the science and art of teaching.
Rubricate PLUS harnesses the POWER of assessment

... enabling, empowering and inspiring teachers!

Rubricate PLUS uses the latest educational research in effective assessment for learning and evidence-based teaching, to provide a vital tool for teachers in the classroom, to improve their classroom practice and maximise their learners’ learning experiences.
For more information:
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