Teachers for EFA:
Teachers and the challenge of quality.

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Changing employment patterns

<table>
<thead>
<tr>
<th>Skilled manual work</th>
<th>Non routine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services and manufacturing</td>
<td>Managerial, creative.</td>
</tr>
</tbody>
</table>

| Unskilled manual work | Routine clerical work. |

• The big trends
  – Increasing proportion in skilled jobs
  – Decreasing numbers, and pay in unskilled jobs

• Implications for education
  – Higher standards
  – Greater understanding
  – Skills of decision making, analysis, synthesis.
Quality is needed for health and other benefits

- HIV infection rates in Uganda (1990-2002)
  - Over a 12 year period, infections rates declined with education
Old standards are not enough

• Making progress is not enough. To prosper, you have to move faster than the others.
Where would you send your child?

School A

• Good building
• Good furniture
• Good books

….. But no teacher.

School B

• A competent and committed teacher

….. But no resources, operating under a tree.
Teaching is central to quality

- The top correlates of learning outcomes are (OECD 2005):
  - (1) Home background
  - (2) The teacher

- Good teachers make a difference
  - Difference of 50 percentile points in student achievement after 3 years, as a result of teacher sequence (Tennessee study; Sanders and Rivers, 1996)

- But, “good teachers” are not always the best trained. Positive effects of
  - Experience
  - Teacher academic qualifications
  - Teacher education, (especially practical linked with content).
  - Teachers own test scores in school (Rice USA)
The story of EFA in Africa

Rapid growth in primary enrolment (GER)

<table>
<thead>
<tr>
<th>Year</th>
<th>GER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>43</td>
</tr>
<tr>
<td>1970</td>
<td>53</td>
</tr>
<tr>
<td>1975</td>
<td>62</td>
</tr>
<tr>
<td>1980</td>
<td>80</td>
</tr>
<tr>
<td>1985</td>
<td>79</td>
</tr>
<tr>
<td>1990</td>
<td>73</td>
</tr>
<tr>
<td>1995</td>
<td>76</td>
</tr>
<tr>
<td>2000</td>
<td>83</td>
</tr>
<tr>
<td>2005</td>
<td>97</td>
</tr>
</tbody>
</table>
Most start school, many do not complete:
Senegal: progress through education system

<table>
<thead>
<tr>
<th></th>
<th>Out of every 100 children in the population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access P1</td>
<td>65</td>
</tr>
<tr>
<td>Access P6</td>
<td>31</td>
</tr>
<tr>
<td>Access S1</td>
<td>13</td>
</tr>
<tr>
<td>Access S4</td>
<td>7</td>
</tr>
<tr>
<td>Access S5</td>
<td>5</td>
</tr>
</tbody>
</table>
Quality is poor
SACMEQ (grade 6 tests, 2001 data)
Figure 2.4: Changes in literacy scores between SACMEQ I and II in six African countries

Poor student literacy:
Reading speed of students in The Gambia

Children have to read 45 wpm to understand…
Teacher content knowledge
## Poor teacher content knowledge

### Results from teacher testing, The Gambia

<table>
<thead>
<tr>
<th>Questions</th>
<th>% of Teachers who Answered Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>The children worked in ___ silence during the test. (Complete, Common, Company, Count)</td>
<td>85.28</td>
</tr>
<tr>
<td>ENORMOUS: Heavy/Hard/Huge/Rotten</td>
<td>54.07</td>
</tr>
<tr>
<td>EVEN: Sandy/ Level/ Rocky/Hard</td>
<td>69.58</td>
</tr>
<tr>
<td>STARTLED: Began/Scattered/Frightened/Deafened</td>
<td>40.73</td>
</tr>
<tr>
<td>MYSTERIOUS: Pleasant/Stange/Quiet/ Frightening</td>
<td>48.38</td>
</tr>
</tbody>
</table>

-% of Teachers who Answered Correctly

Selected Literacy Questions (Full Sample)
The issue of content knowledge

- Quality of content knowledge is important
  - “the quality of education cannot exceed the quality of teachers”.
  - Evidence from SACMEQ, EGRA in the Gambia.

- Quality is a block to higher order teaching
  - Where teachers do not understand the material themselves, they teach use transcription
  - Reflected in lower scores in mathematics and sciences

- Measures to boost content knowledge
  - teach it and test it.
  - Teacher education should
    - teach the topics on the school curriculum,
    - teach them in depth,
    - test for understanding of them.

  - Often attempts to improve teacher quality use higher academic qualifications, less linked with the school curriculum.
Teaching methods - pedagogy
31st May, 2006

**SCALE**

A Scale of a map is a ratio between the distance on the map and that on the ground.

Scale may be grouped as large scale, medium scale, and small scale. The choice of a scale to use depends on the purpose of the map, the detail to be shown, and the size of the paper.

Large scale maps are used to present small areas and many details are shown. For example, a map of a village, farm, estate, or building will use large scales. The map size includes the following scales: 1:25,000, 1:100,000, 1:5,000.

Medium scale maps are used to present medium areas with medium details. Example: a map of a district, region, and a city use medium scale. The map scales include the following scales: 1:50,000, 1:100,000, 1:125,000.

Small scale maps are used to present information of a large area. This type of scale covers a big area.
UNIT FOUR
WORD PROCESSING

1. INTRODUCING MICROSOFT WORD
It is used to manipulate text-based documents such as letters, reports, manuals, news letters etc.

STARTING MICROSOFT WORD
1. Turn on your computer
2. Click the start button
3. Point to programs
4. Click on Microsoft Word

Microsoft Word screen contains the following:
1. Insertion point: It indicates where text will be inserted.

A. End Mark: It is a short horizontal bar which moves downward in the document each time you begin a new line.

B. Menus and commands: It contain the following:
   1. File: It is used to open, save, print etc.
   2. Edit: It is used to rearrange text and other document elements.
   3. View: It is used to view document in different ways.
   4. Insert: It is used to insert page breaks, pictures etc.
   5. Format: It is used to change the appearance of the document.
   6. Tools: It is used for checking spelling and grammar.

C. Toolbars: It is used to prepare tabular data.

D. Help: It is used for further reference.

4. Tool bar buttons:
   - A tool bar contain row of buttons used for frequently commands.
   - A tool bar can be divided into two: They are standard tool bar and formatting tool bar.

   A) Standard tool bar: It contain buttons for standard word operations such as file operations, printing, undo/redo operations.

   B) Formatting tool bar: It contain buttons that control the appearance of text.

   To see or view all tool bars just click view menu then click tool bars.

   Tool bars are adaptive.

5. Ruler: It is below tool bar.
   - It is used for measurement in your document.

   VIEWING A DOCUMENT
   - Your document look like the same screen as it will when it is printed.

   Microsoft Word have four viewing options.
Period

A period is a row of elements in the periodic table. Elements in the same period have the same number of electron shells. The number of electron shells is equivalent to the period number.

d) Group I

Name: Alkali metals

Trends:

<table>
<thead>
<tr>
<th>Decreasing reactivity</th>
<th>Increasing reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing melting point</td>
<td>Increasing melting point</td>
</tr>
</tbody>
</table>

Reaction with Water:

- When an alkali metal reacts with water, a hydroxide of the metal is produced, together with hydrogen gas.

$$2Na + 2H_2O \rightarrow 2NaOH + H_2$$

Reaction with Chlorine:

- When an alkali metal burns in chlorine, a chloride of the metal is produced.

$$2Na + Cl_2 \rightarrow 2NaCl$$

- Chlorides of alkali metals are white solids.
Grade 6: Community school, Liberia

\[
\begin{align*}
936 - 213 &= 723 \\
\end{align*}
\]

\[
\begin{align*}
y^2 + 3 + 5 \\
7 + 3 \\
(3^3) + 3 + 4 \\
y & = 13
\end{align*}
\]
The problem of pedagogy

• Dominance of transcription
  – Little explanation
  – Little checking for understanding
  – Little support for those who do not understand

• Why?

• Weak content knowledge

• Lack of practical training in teaching methods
  – Teacher trainers with limited experience of teaching
  – Some key skills – how to teach reading – not taught in depth.

• Insufficient teaching practice
  – Limited teaching practice
  – Weak support during teaching practice
  – Weak linkage between teaching practice and the taught course.
How to improve teacher education?

• Learning about curriculum, procedures, etc

• Learning the subject content
  – In depth
  – Tested for understanding

• Developing teaching skills
  – Simple practical methods
  – See those in practice
  – Time to practice and develop skills.

• Who is training teachers?
A focus on quality
Lessons from industry
Quality management

• Quality can be changed through quality management.

• You get what you monitor
  – every teacher should be checking for learning regularly (informally)
  – at least twice a year (formally).

• You need clear and transparent targets.
  – Often hidden in large formal documents
  – Need clear targets – eg: after year one, they should be able to…
  – Too many targets are less likely to be met, so a simple, clear list
  – Samples of standards…..

• Part of a culture of quality is a focus on the “failures”.
  – Too often teachers simply ignore large parts of the class and assume that they cannot make it.

• Professionals develop their own solutions: learning communities.
Quality: the place of parents
Involving parents in quality

• Home environment is vital. How do parents
  – encourage their children
  – provide help with homework
  – pose questions to them that develop thinking skills and practices, all make an enormous difference.

• Parents should be the teachers’ best assistants.
  – But often they push them away, or involve them only in fundraising.

• What can schools and teachers do?
  – Contact parents if attendance falls
  – Explain to parents how to support homework
  – Show parents the targets
  – Encourage parents to come to the school to discuss progress.
Conclusions

• Quality is one of the major challenges.

• But it is one that can be addressed – partly through quality of teaching

• Quality of teaching can be improved by:
  – A) Focus training on the school content (understanding)
  – B) Equip teachers with basic teaching skills.
  – C) Encourage a focus on and monitoring of quality
  – D) Encourage teachers to work with parents.

• Other quality issues (not teacher related)
  – Curriculum, examinations need to also focus on quality.
  – Targets have to be realistic.