USE OF TIMSS INFORMATION IN BOTSWANA: A PIECE OF A BIGGER PICTURE

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Botswana Examinations Council
A FEW FACTS ABOUT BOTSWANA

- Population: 2,030,738 - (2011) Census
- GDP (USD) 17.63 billion – (2011)
- Middle Income, struggling to transition into high income level
- General Education Structure: Centralised system
  7 years primary
  3 years junior secondary
  2 years senior secondary
EDUCATION & SKILLS DEVELOPMENT A PRIORITY

• About 30% of the recurrent budget goes to education and training
• Revised National Policy on Education (RNPE) (1994) -- Education and training - the primary vehicle for sustainable development and diversification of the economy
THINK GLOBALLY, ACT LOCALLY

• Internal and comparative indicators, provide information about Botswana’s education system in a globally competitive environment
• BEC mandated to coordinate and conduct TIMSS, PIRLS on behalf of MOESD
SOURCES OF INFORMATION FOR MONITORING SYSTEM PERFORMANCE

Internal indicators
Quality and context of learning

- Standard Four Attainment Study – 2007
- Enrollment Rates, Attrition Rates, recurrent Budget
- Performance patterns in national examination
- MLA
- SAGMEQ
- TIMSS– System level information on the context of learning –non comparative

External Indicators– Competitiveness---- Comparative context of learning & performance

- MLA
- SAG MEQ
- TIMSS
- Global Competitiveness Index
- Macro Economic Indicators
### SELECTED RECOMMENDATIONS FROM THE TIMSS 2003 NATIONAL REPORT

<table>
<thead>
<tr>
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<th>Recommendation</th>
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<tbody>
<tr>
<td>1</td>
<td>The review of the Upper Primary curriculum should consider the curriculum analysis report from the 2003 TIMSS which identified gaps in coverage of some topics. Generally, Botswana content expectation are less demanding with less emphasis on high order thinking skills.</td>
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<td>2</td>
<td>Botswana Mathematics and Science teachers should undergo some in-service training on specific topics in Science and Mathematics. Introduce teachers to instructional strategies that may work best for specific topics.</td>
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<td>3</td>
<td>BEC should introduce open-ended items in the Primary School Leaving Examinations</td>
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<td>4</td>
<td>MOESD should implement initiatives that will improve proficiency in English Language (Reading and Writing) at primary level</td>
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<td>5</td>
<td>Provide guidelines to teachers on classroom testing and the use of classroom test results.</td>
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RESPONSE TO TIMSS 2003 RECOMMENDATIONS


• Introduction of a teacher support programme known as “Strengthening of Mathematics and Science in Secondary Education” (SMASSE).

• The SMASSE program was intended to equip teachers with strategies of teaching learners with diverse learning styles, mainly employing student centered approaches.

• Documented justification for SMASSE:

  “The TIMSS 2003 report has shown that Botswana Is not performing well in Mathematics and Science, as such alternatives are needed…” (2010) Evaluation of SMASSE in Junior Secondary Schools. MOESD, DEPRS.
SELECTED RECOMMENDATIONS FROM TIMSS 2007

• Schools should promote parental involvement
• Performance in Mathematics and Science is not improving—MOESD should consider Strategies to promote Excellence in Mathematics and Science at student and school levels

Response:
• In 2009 BEC introduced Excellence Awards for best students, best performing schools and PTAs, best improved schools at national and regional levels. Excellence Awards supported by Minister and HE the President.
Call to Reform Education and Training

His Excellency the President’s Inaugural Address to the Nation in November 2008 drew attention to the necessity to focus on human resource development and indicated that achieving high income status will require an enhanced skill base.

*He emphasised delivery & delivery !!!*
A RESOURCE DEPENDANT COUNTRY

Need for new engines of growth?
MAJOR SYSTEM WIDE REFORM PROGRAMME

- Current improvement initiatives, fragmented and isolated
- Botswana is embarking on system wide reforms of the education and training sector
- Evidence from a variety of sources, including TIMSS
- Building a case for change
EDUCATION AND SKILLS DEVELOPMENT

ACCESS

EQUITY

QUALITY

RELEVANCE

VALUE FOR MONEY

COMPETITIVENESS

Advancing learning, certifying your future
Botswana’s performance in all three indexes has been declining during the current decade. The most problematic factors cited across all three indexes: Weakness of the human resources base, poor work ethic and an inadequately educated workforce.
Declining Academic Achievement in Secondary Education - Internal

Percentage of Grade A* - C (All Candidates & Syllabuses)

<table>
<thead>
<tr>
<th>Year</th>
<th>% Grade A* - C</th>
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<tbody>
<tr>
<td>2006</td>
<td>43.01</td>
</tr>
<tr>
<td>2007</td>
<td>40.69</td>
</tr>
<tr>
<td>2008</td>
<td>37.53</td>
</tr>
<tr>
<td>2009</td>
<td>34.75</td>
</tr>
<tr>
<td>2010</td>
<td>32.76</td>
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THE QUALITY IMPERATIVE – REGIONAL PERSPECTIVE (SACMQ)

GDP per capita (USD PPP) vs. SACMEQ score for various countries:
- South Africa
- Mauritius
- Seychelles
- Kenya
- Mozambique
- Tanzania
- Uganda
- Lesotho
- Zambia
- Malawi
- Botswana

The graph illustrates the correlation between GDP per capita and SACMEQ score, indicating that countries with higher GDP per capita tend to have higher SACMEQ scores.
The quality imperative – Global perspective (TIMSS)
EDUCATION AND SKILLS DEVELOPMENT

Staff Training

Public Spending on education

Secondary enrolment

Tertiary enrolment

literacy

Botswana
Mauritius
Chile

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RESPONSE

SYSTEM WIDE EDUCATION REFORM GUIDED BY THE NEW HUMAN RESOURCE DEVELOPMENT STRATEGY
Programme Life Cycle

Day 1 – APRIL 1st 2013

October 2012-March 31st 2013

April 1st 2013-March 31st 2016

START UP PHASE

CONSOLIDATION PHASE

PLANNING
By 2022 Botswana will be famous for its quality, skilled, well educated motivated and productive people.
Thank you for listening !!