EDUCATION FOR WHAT? MEANINGFUL AND EQUITABLE LEARNING IN SOUTH AFRICAN SCHOOLS

Shireen Motala and Stu Letsatsi
University of Johannesburg/University of the Witwatersrand

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http://www.create-rpc.org/
RELEVANCE OF ACCESS TO SA EDUCATION

• the political and economic context characterised by high income inequality
• The gini co-efficient has been consistently high (6.79 in 2010)
• Inequality in broader society reproduced in education with a two tier system of access and quality
• Size and shape of the public schooling system
  - Mainly public (96% with 12 million learners), high GERs and NERs up to Grade 9, GDP expenditure (6%), devolved system of governance with 9 provinces, 66% in primary and 34% in secondary.
  - Key challenges include managing curriculum reform, teacher quality, governance and decentralisation, and achieving both equity and equality and meeting MDGs and EFA goals
• Relevance of CREATE framework to South African education
• Inclusion, exclusion, improved participation and meaningful access continue to be major issues
Zones of Exclusion in South Africa – is access a problem?

South Africa

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6

Age/Grade Population

Secure Enrolment with Meaningful Learning

CREATE Model based on NDoE Data

Boys

Girls
POST APARTHEID PROMISE - 1994
whither quality education?

“Whereas this country requires a new national system for schools which will redress past injustices in education provision, provide an education of progressively high quality for all learners and in doing so lay a strong foundation for the development of all our people’s talents and capabilities, advance the democratic transformation of society, combat racism and sexism and all other forms of unfair discrimination and intolerance, contribute to the eradication of poverty and the economic well being of society, protect and advance our diverse cultures and languages, uphold the rights of all learners, parents and educators, and promote their acceptance of responsibility for the organisation, governance and funding of schools in partnership with the State”

...(SASA 84 of 1996: 1)

15 years on...
- Poor learning outcomes in national and international benchmarking tests Grade 6 (2006), mean score in lolt 38%, maths, 27%, and science 41%.
- SACMEQ, South African learners fare poorly in relation to regional counterparts.
- SA has highest level of between school inequality of performance in both maths and reading in amongst these countries (van den Berg 2008).
CREATE SA RESEARCH APPROACH 2008-2010: focusing on meaningful & equitable access

- Data included
  - 1500 learner profile cards to track vulnerable learners,
  - 200 parent surveys,
  - 1150 numeracy tests to assess curriculum coverage,
  - Day in the life school and class based observations in 9 schools and focus-group interviews with learners (approx. 500),
  - Analysis of learners classwork books in numeracy,
  - 16 school case studies (GT & EC) on the implementation of fee free schooling
  - Longitudinal analysis of grade 4 learners investigating SES and learner outcomes.
  - Statistical analysis from census data including profiling learner drop-outs
  - Provincial analysis on language and access
CREATE RESEARCH – OVERVIEW FINDINGS

Patterns of educational exclusion and meaningful learning in South Africa

- Many have access to basic education but the marginalised are hard to reach
- Minimal repetition and drop-out
- Appropriate age enrolment remains a problem
- Meaningful learning remains an elusive goal
- Two systems of educational quality in South Africa
- Restricted school choice for the poor
- Restricted school voice for poor parents
- The impoverished learning environment
- Limited parental engagement with learning
- Good quality post-basic education is the preserve of the few: the post-Grade 9 bottleneck
Quality and Access in two Districts in Gauteng and the Eastern Cape

- Participation trends
- Numeracy testing
- Day in the Life Study
## Profile of Districts

<table>
<thead>
<tr>
<th></th>
<th>Ekurhuleni South</th>
<th>Gauteng</th>
<th>Dutywa</th>
<th>Eastern Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educators</td>
<td>5 275</td>
<td>55 807</td>
<td>3 243</td>
<td>64 926</td>
</tr>
<tr>
<td>LERs</td>
<td>34.5</td>
<td>32.3</td>
<td>33.3</td>
<td>35</td>
</tr>
<tr>
<td>Learners</td>
<td>182 132</td>
<td>1 804 642</td>
<td>107 018</td>
<td>2 100 425</td>
</tr>
<tr>
<td>Male learners</td>
<td>91 217</td>
<td>902 034</td>
<td>51 093</td>
<td>1 038 557</td>
</tr>
<tr>
<td>Female learners</td>
<td>90 915</td>
<td>902 608</td>
<td>55 925</td>
<td>1 061 868</td>
</tr>
<tr>
<td>Schools</td>
<td>184</td>
<td>2 233</td>
<td>351</td>
<td>6 035</td>
</tr>
<tr>
<td>School Size</td>
<td>990</td>
<td>808</td>
<td>400</td>
<td>490</td>
</tr>
<tr>
<td>Quintile 1 (poorest)</td>
<td>4.8%</td>
<td>12.1%</td>
<td>36%</td>
<td>34.85%</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>7.2%</td>
<td>9.4%</td>
<td>22%</td>
<td>21.58%</td>
</tr>
<tr>
<td>In migration to the</td>
<td>18 576 (10%)</td>
<td>473 074(2%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>province</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
FINDINGS – PARTICIPATION TRENDS

- Community Survey (2007) surveying 386,000 learners noted exclusion and dropout is limited - related disability, fragile household structure, deep poverty and lack of access to social grants.

- Delayed progression (repetition and drop-out, drop-in) an early predictor of dropout and academic success.

- Under age learners enrolled in Gr 1 (used as preschool provision) and over-agedness related to underperformance.

- Poorer children and boys more likely to repeat, repetition deferred to later years when more summative assessment takes place and repetition does not mean remediation.

- Gender parity masks gendered access patterns:
  - poorer girls stay in school longer but perform worst.
  - girls move to schools perceived to be safer.
Percentage of learners by age and grade for the Ekurhuleni district
Percentage of learners by age and grade for the Dutywa district

% of learners by age and grade for the Dutywa district
Numeracy Testing in Two Provinces

- Twelve schools in two provinces (Gauteng and Eastern Cape) - 1150 learners – to assess learners’ numeracy skills in relation to expected curriculum outcomes.
- Grade 4 test administered to grade 5 learners and Grade 6 test to Grade 7 learners.
- Key findings
  - Average Grade 5 score on grade 4 test was 23.5%
  - The twelve schools achieved below national average scores with a high standard deviation (16.5%)
  - LO for Counting highest score 50.6%, while division and rounding off was the poorest (8 and 8.2%)
  - Only half of the learners mastered 50% at Grade 3 skills and knowledge
  - Grade 7 – mean percentage score was 28.1%, only 6 of the schools achieved mean of 50%
  - Evidence of pushing through learners with little repetition and remediation
  - Reasons for poor performance include insufficient home literacy, limited written work, poor planning and preparation and lack of monitoring curriculum implementation
### Mean % scores per numeracy skill, Grade 4 Test

<table>
<thead>
<tr>
<th>Skill</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division</td>
<td>8</td>
</tr>
<tr>
<td>Rounding off</td>
<td>8.2</td>
</tr>
<tr>
<td>Fraction</td>
<td>12</td>
</tr>
<tr>
<td>Place value</td>
<td>18.1</td>
</tr>
<tr>
<td>Multiplication</td>
<td>22.5</td>
</tr>
<tr>
<td>Even and odds</td>
<td>24.8</td>
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<tr>
<td>Subtraction</td>
<td>26.2</td>
</tr>
<tr>
<td>Addition</td>
<td>27.4</td>
</tr>
<tr>
<td>Ordering</td>
<td>31.9</td>
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<tr>
<td>Counting</td>
<td>50.6</td>
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<tr>
<td>Number patterns</td>
<td>12.9</td>
</tr>
<tr>
<td>Symmetry</td>
<td>23.8</td>
</tr>
<tr>
<td>Coordinates</td>
<td>20.7</td>
</tr>
<tr>
<td>Shapes</td>
<td>34.4</td>
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<tr>
<td>Conversions between SI units</td>
<td>3.3</td>
</tr>
<tr>
<td>Mass</td>
<td>4.3</td>
</tr>
<tr>
<td>Area</td>
<td>10.1</td>
</tr>
<tr>
<td>Time</td>
<td>13.4</td>
</tr>
<tr>
<td>Graph</td>
<td>18.3</td>
</tr>
<tr>
<td>Tally</td>
<td>31.4</td>
</tr>
</tbody>
</table>

**LO Levels:**
- LO1
- LO2
- LO3
- LO4
- LO5
Mean % scores per Numeracy skill, Grade 6 Test

<table>
<thead>
<tr>
<th>LO1</th>
<th>Ordering Whole Numbers</th>
<th>42.3</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Fractions, Decimals, Percentage</td>
<td>24.6</td>
</tr>
<tr>
<td></td>
<td>Multiply &amp; Divide</td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>Place Value</td>
<td>19.3</td>
</tr>
<tr>
<td></td>
<td>Ordering Fractions</td>
<td>17.6</td>
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<tr>
<td></td>
<td>Add &amp; Subtract</td>
<td>14.4</td>
</tr>
<tr>
<td></td>
<td>Rounding Off</td>
<td>5.6</td>
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<tr>
<td>LO2</td>
<td>Number Patterns</td>
<td>55.5</td>
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<td></td>
<td>Geometric Patters</td>
<td>34.1</td>
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<td></td>
<td>Equations</td>
<td>27.2</td>
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<tr>
<td></td>
<td>Perspective</td>
<td>27.2</td>
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<tr>
<td>LO3</td>
<td>2-D Objects</td>
<td>32.9</td>
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<td></td>
<td>Transformation</td>
<td>30.0</td>
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<tr>
<td></td>
<td>Mass</td>
<td>36.1</td>
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<td></td>
<td>Length</td>
<td>24.8</td>
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<tr>
<td>LO4</td>
<td>Time</td>
<td>23.8</td>
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<tr>
<td></td>
<td>Capacity</td>
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<tr>
<td>LO5</td>
<td>Central Tendencies</td>
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<td></td>
<td>Data Interpretation</td>
<td>27.3</td>
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</tbody>
</table>
Day in the Life Study

9 schools and about 500 learners investigated to assess
• Competence in teaching methodologies
• Good grasp of content knowledge
• Ability to pace through content
• Effective assessment that ensures learning takes place
• Ability to maintain effective relationships and being “human”

Findings
• Insufficient content knowledge
• Lack of understanding of teaching methodologies
• Treat learners with disrespect – corporal punishment
Day in the Life Study (Cont)

- Preponderance of teacher “talk and chalk” with learners chorusing one word answers
- The lecturing style of teaching dominated
- Whole class question and answer routine was common
- Group reading practiced
- Meaningful access attained by learners whose parents cared, with social capital and with extra learning resources e.g textbooks, novels, etc.

“The generic and aggregating manner in which we understand access is hopelessly irrelevant in SA where inequality is so pervasive. We need analysis of access by poor and rural - otherwise we'll never understand the nature of the problem”

CREATE Researcher, Eastern Cape 2010
Generic and aggregating manner in which we understand access is hopelessly irrelevant in SA where inequality is so pervasive. We need analysis of access by poor and rural - otherwise we'll never understand the nature of the problem

DR Shireen, 19/02/2011
Meaningful Access

• Lack of curriculum coverage, content emphasis and curriculum pacing (Venkat)
• Absence of independent reading and writing (Dieftiens)
• Dependence on rote learning (Letsatsi)
• Numeracy tests show limited prior knowledge and illustrate cognitive deficits (Pereira and du Toit)
• “No education, slow education and mis-education”
Emerging Policy messages and conclusions

From physical access to access to what?

• Proposition 1: Overcoming silent exclusion is the imperative – improving pedagogy, teacher content knowledge and reduce curriculum confusion and complexity

• Proposition 2: a renewed emphasis on access – the current focus on outcomes fails to recognise the source of the problem

• Proposition 3: Need to improve the infrastructure of schools to create effective learning environments

• Proposition 4: Accountability is the gap and dysfunctionality needs strong intervention

• Proposition 5: Social compact to promote inclusion – we need creative solutions to address this crisis in SA education (including research)
From physical access to what?

More specifically to achieve EFA and MDG goals in SA

• Enrol the hard to reach and marginalised
• Focus not only on assessment but on process of classroom practice
• Tackle education inefficiencies: ensuring age specific enrolment and review automatic promotion
• Improve language in education policy
• Moving beyond basic education and improve quality of learning in post basic institutions and in FET