The impact of national and international assessment programmes on education policies and practices in the Asia-Pacific

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Australian Council for Educational Research
OVERVIEW

1. Background
2. Concepts
3. Study questions
4. Methodology
5. Findings
6. Final thoughts and feedback
I. BACKGROUND

STUDY BACKGROUND

• Impact of large-scale assessment programmes on education policy in developing countries - AusAID/DFAT

• NEQMAP - links between assessment and policy of interest

• Extension:
  - 43 original countries from Asia Pacific, 2011 - 2014
  - 7 new high-income countries in Asia Pacific, 1990 - 2014
  - original methodology
I. BACKGROUND CONT.

LARGE-SCALE ASSESSMENT BACKGROUND

• 1964: (IEA) conducted first internationally comparative study in mathematics - 12 countries participated

• 2009: 70% of the countries have participated in some form of large-scale assessment (regional and international)

• 1980s-1990s: Large growth in national assessments
## I. BACKGROUND CONT.

### LARGE-SCALE ASSESSMENT BACKGROUND

<table>
<thead>
<tr>
<th>National</th>
<th>Regional</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locally relevant</td>
<td>Locally and regionally relevant</td>
<td>Enables cross-national comparisons</td>
</tr>
<tr>
<td>Provide important</td>
<td>Provide important and timely</td>
<td>Highly standardised and technically</td>
</tr>
<tr>
<td>information on</td>
<td>information on system</td>
<td>rigorous</td>
</tr>
<tr>
<td>system performance</td>
<td>performance</td>
<td>Provides some opportunity for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>capacity development</td>
</tr>
<tr>
<td>Assessment cycles can be shortened to allow for more timely release of data</td>
<td>Standardised and technically rigorous</td>
<td>High profile</td>
</tr>
<tr>
<td>Technical standards can vary making cross national comparisons difficult</td>
<td>Can be high profile</td>
<td>Costly and local relevance sometimes in question</td>
</tr>
<tr>
<td></td>
<td>Significant capacity development opportunities</td>
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</tbody>
</table>
I. BACKGROUND CONT.

LARGE-SCALE ASSESSMENT BACKGROUND

Large-scale assessments:

- **National/Sub-national** - participating in by 2006 - East Asia (64%), South and West Asia (44%), Central Asia (33%)

- **Regional**: SACMEQ since 1995, PASEC since 1993, UNESCO LLECE/SERCE/TERCE since 1997

- **International**: IEA - PIRLS, TIMSS, ICCS (civics), ICLS (ICT literacy) since 1960, OECD - PISA since 2000
2. CONCEPTS

NATIONAL & INTERNATIONAL ASSESSMENTS

• Purpose - monitor and evaluate student learning outcomes and enable comparisons over time, to provide information on a country’s education system

• Standardised - consistency in test design, content, administration and scoring to ensure comparability (excl. EGRA and household surveys)

• National assessments vs. Examinations

• Primary and secondary education; exclude tertiary
2. CONCEPTS CONT.

POLICY CYCLE

1. Agenda setting

4. Monitoring and policy evaluation

2. Policy formulation

3. Policy implementation
2. CONCEPTS CONT.

EDUCATION POLICIES

• Income classifications:
  – World Bank classifications of High Income, Middle Income, Low Income
• Resource allocation:
  – E.g. $ per student, instructional materials, student-teacher ratio, teacher qualifications
• Teaching and learning practices:
  – E.g. Classroom management and discipline, instructional strategies and activities, teacher collaboration
3. STUDY QUESTIONS

1. Characteristics of the large-scale assessment programmes that have informed education policy-making?
2. How are data used to inform education policy-making?
3. At what stages of the policy process are data being used?
4. What educational policies from use of assessment data?
5. Facilitators and barriers to the use of assessment data in education policy-making?
4. METHODOLOGY

SYSTEMATIC REVIEW

• Provide information to address information gaps/relevant for policy-making

• Rigorous protocol that outlines strategies for each stage of the review: location of all evidence about a questions, screen studies, extract data and present a summary

• A priori protocol helps to reduce researcher bias in searching of material, retrieval, screening, and summary
4. METHODOLOGY CONT.

FRAMEWORK SYNTHESIS

Five iterative steps:

1. Development of an initial conceptual framework during the synthesis, the framework becomes more coherent and complete

2. First glance at data, reading abstracts
4. METHODOLOGY CONT.

FRAMEWORK SYNTHESIS

3. Coding of data using themes and key issues has to be redone as long as framework is not crystallised;
3. Tabulation and summary of data under key themes
4. Drawing together what can be learnt from tables and summaries creating typologies; mapping associations and providing explanations for findings.
4. METHODOLOGY CONT.

SEARCH STRATEGY

• Electronic searches of bibliographic databases
• Searched in Google scholar, as electronic database searching in English only;
• Targeted searches of contents pages of key journals as new issues are published; online alerts;
• Targeted searchers of online holdings of international/regional agencies, research firms and national ministries;
• Citation chasing;
• Contacting relevant groups and researchers in this area;
• Online database to manage records.
4. METHODOLOGY CONT.

STUDIES SCREENED

• 1,445 records identified

• 1,290 records were screened on title and abstract according to exclusion criteria

• 203 records were identified for full-text retrieval. Keywording full-text

• 68 records for in-depth review
4. METHODOLOGY CONT.

SAMPLE KEYWORDS

• Describing assessment program:
  Type (Sub-national, National, Regional, International)
  Education level (Primary, Secondary, both)

• Describing policy impact:
  Stage of the policy cycle (Agenda setting, Formulation, Implementation, Monitoring and evaluation, No impact)
  Type of policy:
    Resource allocation (e.g. Instructional materials, Class size, Teacher preparation)
    Teaching and learning (e.g. Classroom management, Student-oriented pedagogy)
4. METHODOLOGY CONT.

EPPI REVIEWER SOFTWARE
5. FINDINGS

COUNTRY DISTRIBUTION

• 105 mentions of NEQMAP countries over 68 records

• Not a one-to-one correspondence

• Top 6 countries: Australia (23%), Japan (10%), New Zealand (7%), India (6%), Indonesia (5%) and Singapore (5%)

• High-income countries (60%); Middle-income countries (33%)
5. FINDINGS CONT.

QUESTION 1 – CHARACTERISTICS OF LARGE-SCALE ASSESSMENTS?

✓ National assessments with policy-making (49%)
  - National assessments – primary and secondary education
    (Australia – NAPLAN)

✓ International assessments (39%) – incl. high-income countries
  - Secondary education (PISA)

✓ Most often employ a sampling approach
5. FINDINGS CONT.

QUESTION 2 – HOW ARE DATA USED FOR POLICY-MAKING?

% OF TOTAL MENTIONS

- QUALITY: 48%
- EQUITY: 21%
- ACCOUNTABILITY: 18%
- LEVERAGE: 11%
- OTHER: 2%
5. FINDINGS CONT.

SYNTHESIS – POLICY GOALS / ASSESSMENT TYPE / INCOME

• National assessments more frequently mentioned with an Accountability goal, than international assessments (e.g. Australia)

• International assessment programs are more frequently mentioned with Leverage as a policy goal than are national assessments (e.g. Kyrgyzstan MOE – donors)

• Accountability as a goal more frequently mentioned with high income countries than middle income countries
5. FINDINGS CONT.

STAGES OF THE POLICY PROCESS

% OF TOTAL MENTIONS

- Agenda Setting: 34%
- Policy Formulation: 11%
- Policy Implementation: 20%
- Monitoring and Evaluation: 7%
- No Impact: 3%
- Other: 2%
5. FINDINGS CONT.

SYNTHESIS – POLICY STAGE/ ASSESSMENT TYPE

• National assessment programs – more impact on Monitoring and Evaluation Stage, than international assessments

• International assessments slightly more mentioned with Agenda Setting, than national assessments
5. FINDINGS CONT.

RESOURCE ALLOCATION POLICIES

FREQUENCY OF MENTIONS

- In-service professional development: 18
- Instructional materials: 14
- Teacher preparation: 7
- Instructional time/school hours: 6
- Funding formula: 6
- Teacher recruitment and retention: 4
- Equipment: 4
- Facilities: 2
- Decision making authority: 2
- School supplies: 1
- Class size/ratios: 1
### 5. Findings Cont.

**Teaching and Learning Practice Policies**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced learning activities</td>
<td>13%</td>
</tr>
<tr>
<td>In-class learning strategies</td>
<td>13%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
<tr>
<td>Student-oriented pedagogy</td>
<td>8%</td>
</tr>
<tr>
<td>Staff-collaboration/mentoring</td>
<td>4%</td>
</tr>
<tr>
<td>Motivation and future plans</td>
<td>3%</td>
</tr>
<tr>
<td>Additional classes</td>
<td>2%</td>
</tr>
<tr>
<td>Tracking/streaming policy</td>
<td>1%</td>
</tr>
<tr>
<td>Organization of instructional/study-time</td>
<td>1%</td>
</tr>
</tbody>
</table>
5. FINDINGS CONT.

SYSTEM-LEVEL POLICIES

- Assessment policy: 23
- Curriculum standards: 22
- Performance standards: 15
- Other system-level policy: 12
- Accountability policy: 10
- Community/parent...: 4
5. FINDINGS CONT.

FACILITATORS

Integration into policy processes

Media/public opinion

Soundness of program

Value of assessment findings and research

Other facilitators:

Dissemination to general public

<table>
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<tr>
<th>Facilitator</th>
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<tbody>
<tr>
<td>Integration into policy processes</td>
<td>19</td>
</tr>
<tr>
<td>Media/public opinion</td>
<td>15</td>
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<tr>
<td>Soundness of program</td>
<td>13</td>
</tr>
<tr>
<td>Value of assessment findings and research</td>
<td>10</td>
</tr>
<tr>
<td>Other facilitators</td>
<td>9</td>
</tr>
<tr>
<td>Dissemination to general public</td>
<td>9</td>
</tr>
</tbody>
</table>
5. FINDINGS

BARRIERS

- Analysis to Diagnose Issues: 6
- Soundness of Program: 6
- Dissemination to General Public: 5
- Timing of Results: 5
- Stakeholders Receive Appropriate Results: 4
- Further Analysis: 4
5. FINDINGS CONT.

FACILITATORS AND BARRIERS SYNTHESIS

• Barriers ‘No Impact’ – quality of assessment program; integration into policy processes; dissemination of results

• High Income:
  Facilitators – integration into policy processes; accountability systems;
  Barriers – media/public opinion;

• Middle Income
  Barriers – soundness of the assessment program
6. FINAL THOUGHTS

• How to address facilitators and barriers in the assessment design and dissemination of results in NEQMAP countries?

• Strategies for:
  - Integration into policy processes
  - Soundness of assessment program
  - Dissemination to stakeholders

• Future research:
  - Policy analysis, more information about use of assessment data in low and middle income countries
  - Information on wider system level factors (economic, political)
  - Model of policy-making in decentralized systems (e.g. Australia)
THANK YOU!

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