

Large-scale Assessment Data and Learning Outcomes

Linking Assessments to Evidence-based Policy Making and Improved Learning

Background

Large-scale data on learning outcomes are becoming increasingly available. International assessments such as the Programme for International Student Assessment (PISA) and the Trends in Mathematics and Science Study (TIMSS) collect vast amounts of data on schools, students and households. However, the use of education-related “big data” for evidence-based policy making is limited, partly due to insufficient institutional capacity of countries to analyze such data and link results with policies. Many countries therefore rely on research findings from other countries and regions, even though these findings may not be relevant for their education systems.

In order to improve the use of student learning assessment data in strengthening education systems, and to support evidence-based policy making in improving education quality, UNESCO's Asia-Pacific Regional Bureau for Education (UNESCO Bangkok) launched a regional programme called “Learning Enablers for Asia and the Pacific” (LEAP). The LEAP programme aims to develop capacity of the Member States in designing and implementing policies to improve learning based on evidence. For the implementation of the activities of LEAP, UNESCO Bangkok leverages the Network on Education Quality Monitoring in Asia-Pacific (NEQMAP). The overall goal of the LEAP programme is to improve the quality of learning in the Asia-Pacific region by developing capacity of the Member States to collect, analyze and utilize international and national assessment data with an aim to identify learning enablers. This capacity will allow Member States to then translate assessment results and evidence into policy formulation and implementation.

The LEAP programme activities have included a mapping study, a regional capacity development workshop on utilizing assessment data, and a research study on analyzing national or international assessment data, involving 15 countries in the Asia-Pacific Region (Table 1). All of these activities were synthesized to produce a regional report on LEAP. This thematic brief is a summary of this regional synthesis report, focusing on the key results from the mapping study, which involved 13 countries completing a survey on national, international or regional assessments.

Mapping of Learning Assessments in the Asia-Pacific

More and more countries in the Asia-Pacific region are participating in international or regional assessments (Figure 1). In addition, a majority of countries indicated their desire to participate in upcoming rounds of international assessments, such as PISA and TIMSS. For example, Cambodia will be participating in the PISA for Development initiative in 2018, which will be the country's first involvement in this programme.

In addition to participating in international or regional assessment programmes, all countries which participated in the mapping study have national assessments to some extent (Afghanistan and the Maldives conducted their first assessments in 2013 and 2015 respectively). Some countries conduct these assessments every year, while others conduct them at frequent intervals (Figure 2).



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Table 1: LEAP Countries

South Asia	Southeast Asia	East Asia	Pacific
Afghanistan Bhutan India~^ Maldives* Pakistan^ Sri Lanka*	Cambodia* Lao PDR* Malaysia Myanmar Thailand~ Viet Nam	Republic of Korea* Mongolia	Solomon Islands

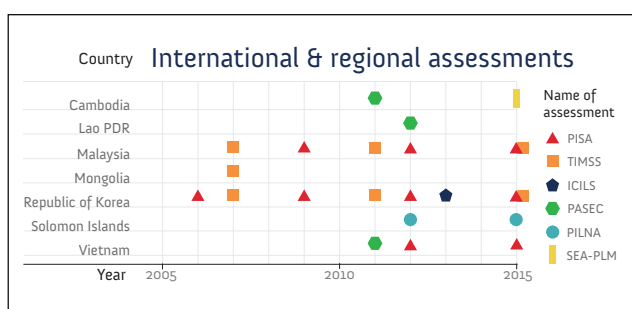
Notes: * did not participate in the research study

~ did not participate in the mapping study

^ ASER Centre, an NGO affiliated with the Pratham Education Foundation (India) and Idara-e-Taleem-o-Agahi (ITA) (Pakistan), which conducts a large citizen-led assessment programme, participated from India and Pakistan and their inputs with regard to the CLA has not been reflected in the summary of the findings as it has mainly focused on the national, international or regional assessments.

Pakistan was also represented by Ministry of Education officials

Figure 1



The purpose for the conduct of these assessments varies from identifying factors in student performance, supporting education policy development, providing recommendations for curriculum review and reform and monitoring the quality of education. The results of the mapping study indicate that most of the countries claimed they used the results of their national assessments to review curriculum and education policy (the two highest responses in the survey), as well as for professional development. However, very few actually use them for learning interventions at the classroom level.

In terms of sharing and disseminating assessment results, most countries give the results to stakeholders and hold seminars or meetings for policy makers. Only some of the countries provide feedback to students, parents and teachers, or release the results to the press (Figure 3).

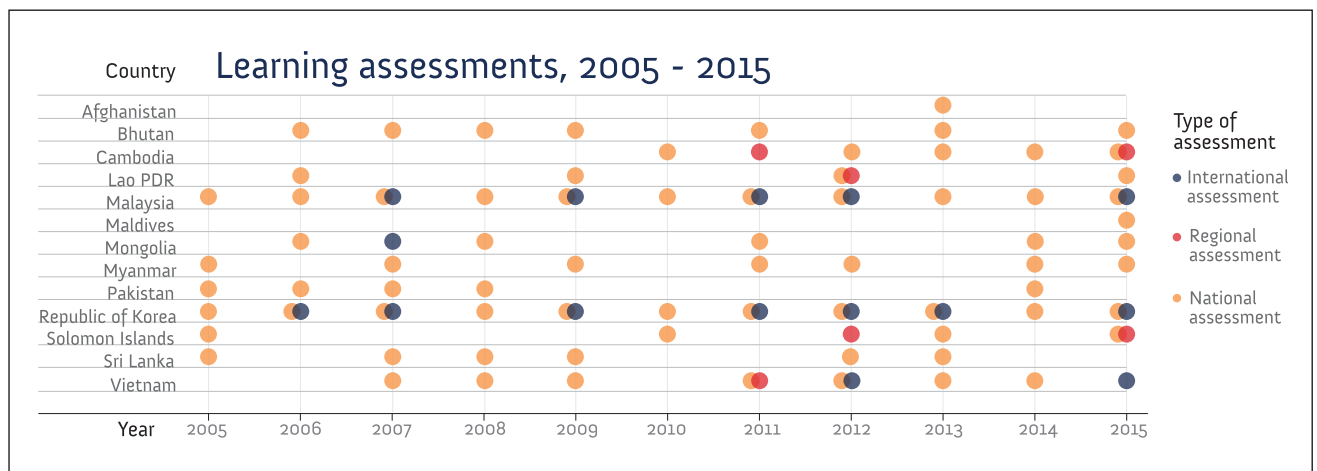
Challenges for Evidence-based Policy Making

Coordination

Even though research related to quality and educational outcomes has been carried out, it is often by different stakeholders, and the available information and data often do not provide the elements necessary for decision-making. This can be either because rigorous research relevant to policy needs has not been conducted or the research that is available does not suggest a course of action by which policies can be formulated.

In addition, education activities are carried out by varying departments and (in some cases) different ministries. Even the collection of data is sometimes carried out by various actors and stakeholders. Managing assessment data and the capacity to link this to the overall ministry of education database can be a challenge. Moreover, sharing information with and between other line ministries and linking it to a central database, such as the national statistics office, can be an issue, as ministries and agencies have varying standards and procedures. Even though this is done with the expectation that it may enhance the effective use of data and avoid duplication, the real issue becomes time and effort to effectively coordinate all concerned at all levels.

Figure 2



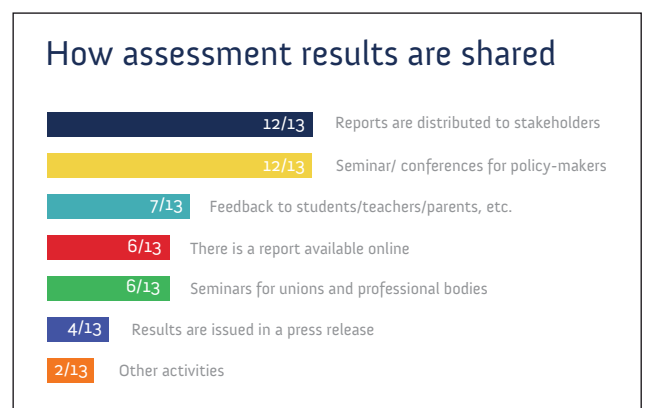
Capacity

Lack of sufficient human resources, such as technical experts, for analyzing large-scale data is seen within many ministries of education in the region. This necessitates the hiring of such expertise from outside. Similarly, there are challenges in regard to the interpretation of findings with policy practitioners. In some cases, the countries lack the appropriate infrastructure and are unable to carry out much of the required work in gathering and analyzing assessment data. When there are other concurrent assessment programmes entailing strain on the staff involved, multi-tasking on their part to meet the deadlines set by the different assessments is seen as another challenge affecting quality of data.

Effective Use and Dissemination of Findings

Effective use of assessment results is identified as the next challenge, possibly warranting a better packaging of the dissemination focusing on policy issues in order to attract the attention of policy makers. This links to lack of capacity in terms of writing suitable reports for different audiences and data dissemination to different stakeholders at large, as well as targeting the media using appropriate delivery packages. This finding is consistent with the experience of other countries in the region, as highlighted in a recent [policy brief on using the results from large-scale assessments to inform education policy](#), published jointly by the NEQMAP Secretariat at UNESCO Bangkok and the Australian Council for Educational Research (ACER). This also points to the need for capacity building in the preparation, implementation

Figure 3

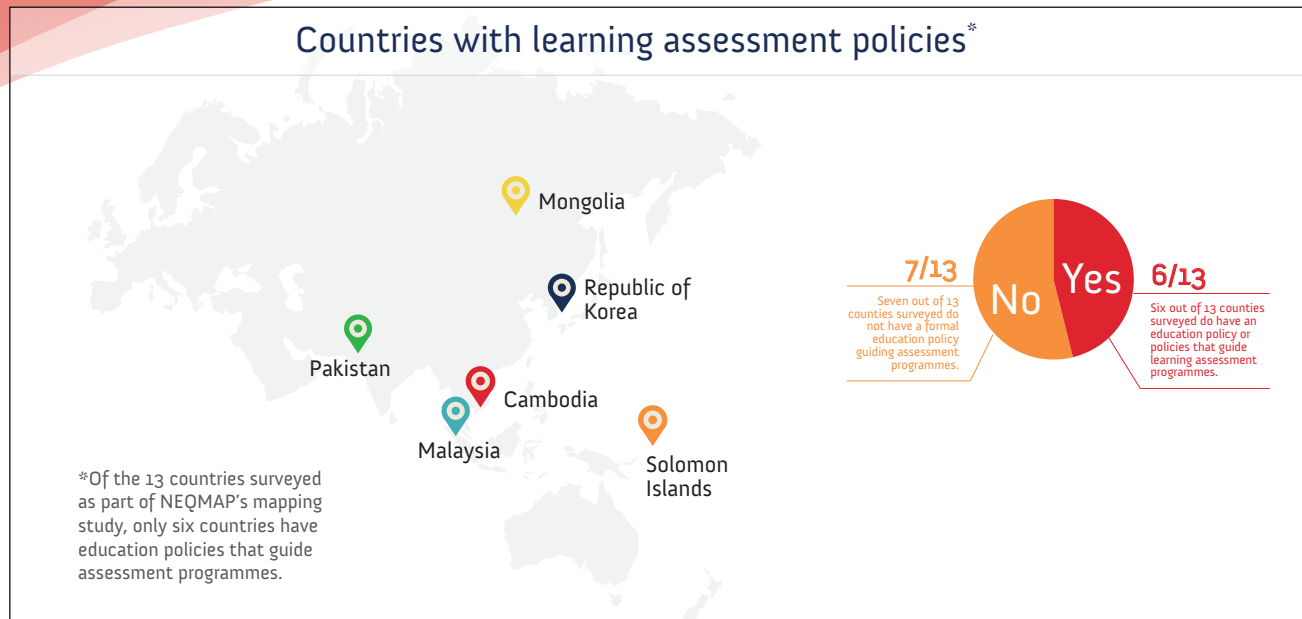


and monitoring of advocacy plans for influencing policy changes to enhance education quality.

The Way Forward

The LEAP programme has highlighted many issues and challenges, as well as several variables that significantly impact the learning outcomes and the quality of education in the Asia-Pacific region. The conclusions from the mapping study provide us with the following areas for follow-up, with an objective of impacting the utilization of learning assessments and the accompanying data and eventually improving education policies for better learning.

Figure 4



Assessment Policies

As shown in Figure 4 above, many countries do not have large-scale assessment frameworks of their own. Many utilize policies that merely include education assessment as an important part of the education system without providing the specific policies and guidelines necessary for a well-functioning assessment system to inform education practitioners and policy-makers. National assessment policies need to be developed by countries that do not currently have any. This includes developing supporting frameworks and guidelines.

Research and Analysis

This set of skills can include capacity to engage in both qualitative and quantitative research. The ability to design research, do technically sound sampling, collect and analyze data is key in order to utilize data from multiple studies. The analysis should include the ability to harmonize data collected by national and international assessments with other data collected from secondary sources, including surveys like India's National Sample Survey (NSS) or a household census, as well as any primary data, if collected. Such harmonization will factor in a balanced analysis of the education situation of the country concerned. In addition, the ability to interpret data and identify causal relationships observed between variables is key to preparing logical arguments, as well as identifying possible remedies to the issues and challenges identified.

Reporting and Advocacy

Reporting and advocacy are important for achieving success in delivering policy change based upon the evidence from learning assessments, as research and analysis skills alone will not impact policy change or secure the resources needed to implement the policy actions and plans. Skills related to the collection of robust evidence and presenting it convincingly to the decision-makers thus constitute an important requirement for achieving success in the advocacy process. This includes the capacity to conduct equally excellent reporting, effective advocacy using various types of media, and strong leadership skills. Ideally, capacity development in reporting and advocacy should be provided to all staff in charge of assessments of learning outcomes and education planners as well as other concerned officials. For this reason, the NEQMAP Secretariat at UNESCO Bangkok organized a regional capacity development workshop on reporting and dissemination, aimed at officials from the low-income countries of the region.

The full regional synthesis report of the LEAP activities will be available in the first half of 2017.

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