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Large scale assessments and their impact for education in the South

Qualitätsmonitoring im Nord-Süd-Kontext

Aus dem Inhalt:

- Schulleistungsvergleichsuntersuchungen im Süden
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Large Scale Assessments and their Impact for Education in the South

Zusammenfassung: In diesem Artikel werden in Kürze Kernpunkte von Schulleistungsvergleichsuntersuchungen mit einem speziellen Fokus auf ihre Anwendbarkeit, Nützlichkeit und Wahrnehmung in Ländern des „Südens" diskutiert. Neben einem Blick auf Schulleistungsvergleichsuntersuchungen mit einer Vielzahl von Aspekten, konzentriert sich der Beitrag auf die Messung im Rahmen von Alphabetisierung. Diese Auswahl ist vorgegeben durch die grundlegende und zentrale Rolle, die Alphabetisierung in jeder Bildungs- und Lernbestrebung spielt, und das besondere Anliegen für Alphabetisierung der UNESCO im Allgemeinen und des UNESCO-Instituts für Pädagogik (UIP) im Besonderen.

Abstract: This paper will address briefly the issues related to large scale international assessments with a particular focus on their applicability, usefulness and manifestation in the developing countries arbitrarily labeled here the „South". While looking at large scale assessments dealing with a range of subject matters, the illustration will draw on assessments built around literacy. This choice is dictated by the foundational and pivotal role played by literacy in any educational or learning endeavour, and the particular concern for literacy for UNESCO in general and UNESCO Institute for Education (UIE) in particular.

History of Large Scale Assessments

Educational assessments in the form of tests and examinations are very old and can be traced from ancient times. Multiple-choice standardized, commercial tests began in selected countries since the 1920s. An industry was born flourishing on assessment (Davis 1998). Along the same lines, international studies of educational achievement began in the early 1960s. In 1962, UIE published a 12-country international comparative study on achievement in mathematics, science and social studies (Foshay 1962). Assessment as a fashion, a tool for international policy and accountability received recognition by governments and broad media coverage only in the 1990s.

There are a variety of comprehensive assessment methodologies which have been developed and administered for school pupils and students such as the combined International Mathematics and Science Studies conducted by the International Association for the Assessment of Educational Achievement (IEA) that has conducted studies in several subjects areas for 40 years now and completed the Third International Mathematics and Science Study (TIMSS) in some 50 countries (Beaton et al. 1996). The Organization for Economic Co-operation and Development (OECD) has, within its performance indicator study of student achievements, launched a series under the title of Programme of International Student Assessment (PISA). The Southern African Consortium for Monitoring Educational Quality (SACMEQ), a powerful network of 15 Ministries of education has been applying cross-national educational survey research techniques since 1995 to the task of developing educational policies that addresses concerns about the quality of education in Southern and Eastern Africa. A parallel initiative serving French speaking countries is piloted by the Standing Conference of Ministers of Education of Countries sharing the use of French language under the title PASEC (Programme d'Analyse des Systèmes Educatifs de la ConfeMen).

To these international large scale surveys mainly targeting students, should be added a series of similar initiatives addressing adults on one hand and focusing on literacy on the other. Among these mention should be made of the International Adult Literacy Survey (IALS) and the Adult Literacy and Life-skills (ALL) both conducted by OECD with Statistics Canada and Education Testing Systems (ETS) USA and the newly starting Literacy Assessment and Monitoring Programme (LAMP), launched by the UNESCO Institute for Statistics (UIS).

Arguments for International Assessments

Assessment in general is said to be useful and needed for the learners themselves but more importantly for teachers to help them improve pupil performance and their own understanding of the teaching learning process. Policy-makers, funding agencies, various stakeholders all want objective assessment to inform choices and priorities, to maximize their

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use of public resources, steer the overall system towards better paths and to unlock the future for brighter generations. The evaluation of students and school performance, the monitoring of the work and efficiency of educational systems, the guidance of educational policies, the orientation of learners and the improvement of resource management are taking central stage in the policy and societal debate. There are many routes and terrains on which the assessments rest. The claim for objectivity and the drive for comparison have led to large scale international assessments.

While we know quite a lot about the national achievement and various national education characteristics and practices, more international studies are needed. One of the major benefits of participation in international studies of educational achievement is the responsibility it places on a country to subject its curriculum to close scrutiny. It also ipso factor presupposes opening to other cultures and norms and going beyond domestic concern and self-satisfaction. A curriculum in a particular subject area may become outdated. Some countries lay too much emphasis on subjects rather than on cross-curricular competencies which is important if attention is to be paid to the development of the human personality and empowering yet functional literacy. In this way Ministries can be alerted to differences between their curriculum and that of other countries.

Another important advantage is the attention given in large scale assessments to broad groupings of explanatory factors, such as home background, school characteristics, teacher characteristics, teaching conditions and practices and student motivations. International studies facilitate comparison of the relative importance of the factors in different countries. On the basis of these background variables it has been possible to see considerable qualitative deficits in the educational system in the developing countries which were included in the international surveys. In Latin America and the Caribbean region, while literacy and basic education are close to universal, important gaps still remain, especially in reaching and educating marginalised groups. The parents of 80 per cent of the urban youth fall short of the basic educational threshold required to access well-being levels (ECLAC 2000, p. 101). A larger majority of the gainfully employed populations is not sufficiently educated to move beyond the income levels associated with the lower occupational categories (ECLAC 2000). Household surveys show that of the 82 per cent of the adults who have completed primary school, only 50 per cent are able to read a simple text. The problem with developing countries is the bigger income gap and the greater social inequalities observed in their education systems that mirror the deepening and persisting socio-economic disparities prevailing in these countries compared to industrialised ones. Not only is the gap between the rich and the poor great, the gap is also great with regard to education and health. According to Schiefelbein (2003) while 50 per cent of the children who have passed primary school cannot read and write in Chile, it is in fact 90 per cent for those children who come from disadvantaged families. There is a close relationship between school achievement and social background in this country and it is not a surprise that private schools reach better results than the state run schools.

A number of the factors listed above have been found in international studies to be associated with educational achievement across many countries after the influence of other factors has been taken into account. In assessing their potential value as sources of information for guiding the improvement of education systems, account has to be taken of the fact that some of these factors are more amenable to change through policy reform than others. Longer term changes involve changes in the adoption of teaching approaches designed to improve pupils' interest and attitudes, increases in the level of teacher education and training and the changes in the learning culture.

Researchers from developing countries in specific subject areas of the school curriculum, such as reading, written composition, mathematics and science, can benefit from the wider perspectives in curriculum development and teaching approaches taken in international studies. In the OECD definition of adult literacy of the IALS study, for example, the view was expressed that literacy must become a fundamental concern in all the policies of a state, and not merely in the education and continuing education sectors (OECD 1997, p. 85; 106). This presupposes a change of culture in every country, making learning for all throughout life the passport to knowledge and learning societies.

Large Scale Assessments in Developing Countries

A number of developing countries have been conducting national large scale assessments in a systematic and recurrent manner. The rationale for undertaking such nation-wide testing stems from the same justification and practices used in developed countries to carry out similar in-country assessments, and to engage in international comparative assessments. Brazil, Chile, China, India, Mexico but also smaller countries like Barbados, Botswana, Jordan, Tunisia and many other countries have an established tradition of assessing learning achievements on a national scope. Their education systems are organised accordingly.

In these national assessments, there is a major departure from the patterns of earlier decades in which focus used to be on various parameters related to programme effectiveness and rarely on the actual and real level of attainment and performance as regards literacy (Subba Rao 2002). An example was the Indian District Primary Education launched in 1994, chiefly aiming at revitalizing the system and achieving Universal Primary Education (UPE). It currently covers about 50 per cent of the children at primary stage in the country. Since the tests are carried out on a nation-wide basis, it provides a broad-brush picture of how students are performing. As the data are aggregated along several lines including gender and social groups, it becomes easy to identify target groups and poorly performing areas that require more focused attention. It helps better to target groups and channel resources to unreached areas. A unique feature, is a very clear delineation of „competencies" and formulation of an easily understood framework for constructing the tests, parallel tests, and guidelines for ensuring that the tests are reasonably reliable and valid. This includes collection of background information on

learners, the villages, and other demographic features and particulars. Inter-district and interstate comparability has been achieved to a large extent in India because of the uniform assessment framework, which is being followed. Given the socio-cultural diversity in the country, the principle of designing assessment tools at local level within a larger national framework seems to be the most appropriate strategy (Subba Rao 2002).

Barbados has conducted a national functional literacy and functional literacy skills assessment in the mid 1980s and Botswana had a national literacy assessment in 1993. In Latin America alone, Brazil and Chile, for instance, have been conducting these assessments for the last 15 years or so. By 1997 already 21 countries have been administering national tests.

There is also a growing trend to go beyond national and embark on broader regional assessments by developing countries. Following the IEA time and cohort series on Mathematics and Science and the PISA comprehensive model as well as the IALS and ALL methodologies, the Laboratorio Latino Americano de Evaluación de la Calidad de la Educación set up by the UNESCO Regional Office for Education in Latin America and the Caribbean (OREALC) has launched a regional comparative assessment of the quality of the education in this region. It stems from their analysis and conclusion that Cuba leads in reading, mathematics and literacy. Brazil is ahead of Mexico in reading and mathematics. Most of the other countries are behind Brazil and Mexico. On a whole, it has been pointed out that the Latin American region is 50 per cent behind the developed countries if comparative measurement of learning achievement is applied (Schiefelbein 2003).

Another major undertaking in this field resulted from the studies made by the UNESCO International Institute for Educational Planning (IIEP) leading to the creation of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ). The first research phase was initiated by seven Southern African countries from thousands of pupils, teachers and schools (Saito 1999). SACMEQ II assessed Grade 6 pupils and teachers. The 'skills audit' of the reading and mathematics tests resulted in eight levels of competencies for each subject. These competencies provided a more concrete analysis of what pupils and teachers can actually do and possible instructional strategies relevant to pupils at each level of competence. The comparability of the information collected lies in the „the fact that the SACMEQ data archive allows countries to compare the information with a wide variety of 'reference points' such as: a) comparison against Ministries' own benchmark standards; b) comparison across countries in the sub-region; c) comparison with other countries who participated in a large-scale international educational survey; d) and comparison with different time periods." (Saito 1999).

In order to achieve comparability, SACMEQ used detailed curriculum blueprints from all participating countries to guide the construction of test items. Three aspects of reading were examined: narrative prose, expository prose and documents. In each participating country, a committee of reading experts and grade 6 teachers was formed and reviewed each of the 59 SACMEQ items and established the sub-set of the „essential

items" to be mastered. This was done before data collection. Two cut-off points were established: a desirable standard of reading and minimum standard of reading (Saito 1999). SACMEQ 1 resulted in the production of seven policy reports for Kenya, Malawi, Mauritius, Namibia, Zambia, Tanzania (Zanzibar) and Zimbabwe.

Developing Countries in Large Scale Assessments

Very few developing countries have participated in the large-scale international assessment. The reasons are manifold. Discussions concerning the results of the PISA study of the OECD have concentrated on developed countries and few economically well-off countries of East Asia. It is often forgotten that PISA was undertaken in 14 non-OECD countries. Data are available for Albania, Argentina, Brazil, Bulgaria, Chile, Hong-Kong, China, Indonesia, Israel, Latvia, FYR Macedonia, Peru, Russian Federation and Thailand. In general it can be said that most of the OECD countries have similar demographic, educational and economic trends, which cannot be said for the non-OECD countries included in the survey. This is true for all areas. The difference in the educational situation may be illustrated through the fact that „in the non-OECD countries for which data is available, net enrolment rates at the secondary level were below the OECD average of 89 per cent [...], they are considerably lower in Indonesia (48 per cent) Thailand (51 per cent) or Peru (61 per cent)" (OECD 2003). There also may be a difference in the age at which children start school or proceed to secondary education, or a high selectivity in transition from primary to secondary education, or a difference in repetition rates.

The economic situation in the cited non-OECD countries is quite different from the OECD countries. Most non-OECD countries face the challenge of providing quality education with fewer resources. Moreover, there are larger disparities in the distribution of wealth within countries. Also, the cultural contexts of the non-OECD countries show great variations and are not comparable to the OECD countries surveyed.

The non-OECD countries are used as a token in a club of rich counties and gradually co-opted and integrated, as their economic and development indicators matches the threshold set to belong to OECD countries. There is an initiative from the World Bank to use a simplified model of the assessment tests applied to these countries for a much wider international survey covering all developing countries.

The feasibility of such an assessment is being widely discussed as it is confronted with many problems. Besides the prohibitive costs involved and the methodological challenges and the difficulties to overcome are enormous. The framework to secure the comparability of results is another straightjacket that poses additional burden on countries and creates exogenous hurdles for the learners.

Most of the international assessments widely analysed and documented in the literature are dominated by OECD countries and the industrialised countries of the North. In fact the

surveys extend far beyond the traditional field of learning achievement and go straight to the heart of the dominant discourse about the crucial socio-economic importance of globalisation. Key qualifications tested through literacy, mathematics or science are related above all to the competitiveness of business and the economic benefits of a more skilled labour force. The social benefits are interpreted in terms of social cohesion or the adaptation to the changes taking place in the new information society, social integration, reduction in segregation and the danger of anomie resulting from marginalisation, exclusion and criminality in industrialised countries. Education is seen as crucial to the economic performance of industrial nations. Inadequate levels of literacy among a broad section of the population potentially threaten the strength of economies and the social cohesion of nations (OECD 1995, p. 13).

An example can be given in the field of literacy and the attempt being made by the UNESCO Institute of Statistics (UIS) to improve literacy statistics and to move away from self-reporting and proxy measures towards real assessment of literacy skills performed by the individuals and their collectives. It is planned to carry it through an international pilot study within the Literacy Assessment Monitoring Programme (LAMP), applying standardised tests amenable to comparison. The IALS model immediately called attention upon itself as basis for such an international assessment. The strength of this methodology is that it confronts the complexity of literacy[1]. It is a well researched and empirically proven statistical construct, it is solidly grounded in its theoretical framework, reliable and practical. However, it was quickly realised that it has major limitation as well.

While reflecting the complexity of literacy the IALS model implies literacy acquisition from schooling and formal education. It is heavily biased in favour of workforce analysis and requirements and it postulates intensive information processing and documenting as the ultimate goal of literacy. It also implicitly implies the frequent and intensive use of literacy for such purposes as a universal feature of all literate societies and the main destination of any literacy road.

It is also a matter of evidence that of the five levels of literacy defined by IALS only Level One, the lowest applies to the context of the majority of developing countries as it reflects the situation of low income, marginalised groups in industrialised countries. Such a grid posits *a priori* that all people in the developing world are *de facto* at the low level of the scale. To remedy this, it was suggested to bring differentiation in Level One so that to distribute countries and groups within it. This is not acceptable for obvious reasons. There are high performers and highly literate in all societies in both developed and developing countries. There are real problems with this model and serious adjustments need to be introduced. Furthermore, the low level does not refer to numeracy or quantitative elements or problem solving. The distinction and ranking between prose, document and

quantitative literacy is problematic for an assessment meant to capture literacy acquisition in a comparative and from a cross-cultural perspective.

Due to all of the reasons cited above, the question can be raised how valid comparable assessment results can be achieved for non-OECD countries. It seems that the test instruments would require to be revised in the light of the cultural, educational and socio-economic context in which they are being used.

A Case for a truly International Assessment and Comparison

The tension between local and global and the need to cater for national needs and concerns while keeping abreast with international requirements is a challenge faced by all countries but having a singular manifestation for each of them.

International standards and comparability among countries could pave the way and bridge the differences. A fair and just system needs to be participatory, reflective and responsive to the situation and concerns of the large majority of countries if not all of them. Moving to assessment at its best „however

has proven to be far more difficult and complex than expected" (Perrone 1997).

How can student achievement become a key criterion for judging the quality and effectiveness of the education system and how to make this system accountable to all – constitute some of the myths fuelling the assessment euphoria. The growth of a market promoting this business and the growth of a real science of measurement appear to be concentrating more on the product and the tools and less on the people and their personal and cultural aspirations.

Assuming that a free borderless world is emerging and taking shape requiring truly global content, methods and delivery, common assessment tools and standards will be called upon. It is now largely agreed that this process is neither linear, incremental nor is it uniform. How countries relate to it and how do they participate in it are questions of great importance.

If developing countries are to integrate themselves into international assessment system for improving the quality of their educational systems, they have to request some adjustments and to fulfil some requirements. The adjustments to be demanded are not concessions to lower quality or complacency towards rigorous treatment. The quest for adjustment is a search for a shared and justified relevance, the respect for contextual conditions. The use of bus schedules and telephone books, for instance, as loci for deriving functional information or applying functional skills is as irrelevant in desertifying rural settings of industrialised countries and yet more irrelevant for many developing countries. The measurement instruments have to be piloted and empirical evidence gathered from the situation and contexts of the developing countries. Adjustment through translation and other types of validation leave unattended several issues as explained by Bernando (2000) and Manesse (2000) with regard to the applicability of IALS in the Philippines and France respectively (IRE 2000).

Another major requirement is the mastery and ownership of the assessment tools and processes. The licensing and copyrights is not what is at stake but the true capacity to design, pilot, control and adjust the instrument in situ, in cultural contexts and read one's world as it speaks out is a pre-requisite for a truly international dialogue and comparison. The conditions for comparability should be discussed and agreed upon on a broader cross-cultural basis and conditions and not from a standpoint of a dominant epistemology or world vision.

The conditions to fulfil are mainly in the purview of quality and equality. The most important task of the educational system is the fight against social inequalities in the educational system. Since social background plays an important role in the learning achievement measures are needed to overcome educational inequalities and systematic educational reforms.

What is needed is improvement in the learning culture. Measures have to be taken in order to improve the pedagogical and organisational culture of the schools. Most teachers lack pedagogical training. More emphasis has to be placed on personality development rather than on memorisation and frontal instruction. The school organisation needs to be transformed into groups where teamwork, peer learning, problem solving, organisational capabilities and critical reflection and thinking take centre stage. A new learning culture needs to be introduced in schools in developing countries. Teachers and pupils must interchange and analyse and reconstruct content together, rather than content and curricula being prescribed from top to bottom. Some will argue that the culture of learning described above is culture specific and biased towards Western cultures and values and not reflecting other existing modes of learning, unlearning and relearning.

The local knowledge that children bring with them to school especially in traditional societies need to become a part of the school curricula. Schools must teach relevant content to its pupils, rather than boring stuff to which pupils cannot relate. Content needs to be transmitted in an interesting way. Each school should be in a position to plan its own pedagogical activities and not be limited by bureaucratic bottlenecks.

An important issue that needs to be assessed in assessment survey is identifying the essential competencies that pupils require if education is to be centred in the development of the person and oriented to the everyday world of the children: Three sets of competencies are important. The first is the rich variety of *content specialisation*, such as how to teach literacy for health, etc. The second set of skills is the *generic, cross-curricular or psychosocial skills*. In South Africa, these Skills are referred to as critical crossfield outcomes, which are deemed necessary regardless of the educational level or discipline. These include competencies such as critical thinking creativity, the ability to organise, and social and communication skills, adaptability, problem-solving skills and the ability to co-operate on a democratic basis. While PISA takes into account the generic abilities with regard to mathematical, reading and science literacy, it has ignored the importance of *values and attitudes*. These include democratic values and attitudes including participatory methodologies, and a commitment to values such as social justice, human rights and democracy.

The measurement of reading, mathematics and science in the PISA study is more attuned to the measurement of key competencies (Messner 2002). The questions have been designed in such a way that while measuring reading, mathematics and science the pupils are being tested in key competencies. The accent is on cross-curricular, life, school and occupational competencies. They entail comprehension, problem solving, application, communication and learning to learn. Literacy entails reconstructing the text as a key tool for all other basic qualifications.

The focus is on abilities necessary to apply the conceptual thinking and reflection in concrete situations; effective interaction with the environment and psychological prerequisites for successful performance. Key qualifications cannot be learned in an abstract and theoretical way. Rather they require the individual to subject his own experience, contexts and observations about problems to creative analysis and evaluation, to collect, probe and discuss his experience where it happens in real life. The new understanding of key qualifications implies that teachers are expected to use materials that are relevant to the context of their student's lives. Students and teachers adapt and construct knowledge by interacting

with the communities they live in.

The critique on formal education is that it has concentrated too much on the instrumental and subject oriented content rather than on other dimensions such as the reflective and the social skills. There is a growing international recognition that such skills need to be included in curricula and not delivered as separate standalone programmes.

However, in the debate on the importance of key qualifications for developing counties one has to be aware of the fact that many of the generic definitions of key competencies in particular those that are developed in the northern context the individual and workplace dimensions are slightly overweighing the other skills such as social and citizen skills, in spite of the clear acknowledgement of the importance attached to both dimensions (Ouane 2002). Moreover, because given the diversity of contexts, backgrounds and cultures and inherent abilities there are bound to be individuals and groups, who cannot attain some key qualifications. So one has to encourage and try and develop other skills and abilities to encourage diversity rather than uniformity. Although it is desirable to assess the acquisition of key qualifications by measuring them as far as possible, it is obvious that not everything and not all key competencies can be easily submitted to measurement, particularly as methodologies and tools are not available nor adequately developed for the purpose. Communication practices, teamwork and problem solving may take on completely different connotations in different cultural and social contexts. It needs to be remembered that key competencies are not static skills but evolve according to circumstances. They depend upon the family milieu and upon gender difference. The measurement of key competencies should be able to take into account disparities in social background, gender and the labour market, as well as national and international cultural variations. All key competencies have only a contextual relevance both within and across societies. To transfer requirements of universally required key competencies which have been defined in the context of the North, to the developing countries with very different socio-economic situations is to pose problems and to distort the whole emphasis of their education in other functionally necessary key competencies. This would also create further divisions between the North and South, rather than resolving them.

The homogenisation of language and culture has been at the heart of the debate on the quality and will be a challenge for large-scale assessment. Despite the increased opportunities for exchange, encounter and dialogue between heterogeneous cultural backgrounds made possible by globalisation, there is growing pressure for cultural and linguistic uniformity. The threat of the loss of cultural diversity and the ongoing extinction of a great number of the world's languages are significant not only for culture itself but also for human development.

The diversity of educational environments associated with international studies demands close attention to methods of curriculum analysis, to procedures employed in the construction of measures of educational outcomes – knowledge, skills, and values that have applicability in different contexts of the participating countries, to issues of defining comparable populations and sampling procedures, and to the methodology required for data processing and statistical analysis of large number of variables.

Conclusions

Large scale international surveys are important because they have stimulated a debate on the quality of educational systems which is so badly in need of improvement in developing nations. However, what these surveys convey is the overemphasis of reading, mathematical and science literacies in the context of the New World economic order. There is also a danger that by overvaluing the individualistic world and the informational function of the written word, it ignores assessment of the vast cultural terrain of the subjective, aesthetic and imaginative functions. And undervalues studies of the school environment that reveal pupils' imagination and creativity.

It is necessary therefore to design theoretical understandings of competencies, survey methodology and procedures which effectively take into account the everyday life and people's cultural categories in developing countries. If this is not done then there could be a danger that the results of international surveys are merely guided by fashionable neoliberal themes. In this sense developing countries must continue to devise and design alternative national educational researches and policies in dialogue with their own societies and recognition of their own demands. Results from national surveys should be compared with the results of international surveys. This is all the more important as in many developing countries literacy is scarcely the norm and development strategies have little in common with those recommended for the OECD countries.

The other problem is reconciling training in key qualifications expected in 'knowledge' economies with social responsibilities resulting from the dramatic changes and challenges relating to poverty, inequality, violence and environmental destruction in developing countries. The pressing, difficult situation caused by these changes demand that we mobilise skills, abilities and creative problem-solving potential of a collective nature rather than of a completely individualistic, cognitive and universal nature. The importance of skills with broader development of personal potential becomes significant. According to the Delors Commission (1996) human being's further progress depends less upon continued economic growth than upon an increase in a broader 'personal development' and empowerment that people need to steer overall developments in a sensible way.

Annotation

1 The IALS definition of literacy is: „Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential".

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