

Asia-South Pacific Education Watch

EDUCATION WATCH TOOLKIT

**A RESOURCE PACK
FOR EFA RESEARCH
AND MONITORING**

About the Asia South Pacific Education Watch Initiative

At Midway Point: Failing Grade in EFA

The critical state and ailing condition of education in many countries in the Asia-South Pacific region compel serious and urgent attention from all education stakeholders. Decades of neglect, underinvestment in education, corruption, and inefficiency by successive governments in the countries of the region have left a grim toll in poor education performance marked by low school attendance and survival rates, high dropout and illiteracy rates, and substandard education quality.

Moreover, there are glaring disparities in access to education and learning opportunities: hundreds of millions of impoverished and disadvantaged groups which include out-of-school children and youth, child workers, children in conflict areas, women, indigenous peoples, persons with disabilities, Dalit caste and other socially-discriminated sectors remain largely unreached and excluded by the education system.

Hence they are denied their fundamental human right to education and hindered from availing themselves of the empowering and transformative tool of quality, life-long learning that could have equipped them to realise their full human potential, uplift their living conditions, and participate meaningfully in governance and in decisions that affect their lives.

In 2000, governments and the international community affirmed their commitment to quality Education for All (EFA) and the Millennium Development Goals (MDGs). Midway to the target year 2015, governments' assessment of EFA progress reveals that education gaps and disparities persist and education conditions may be even worsening as indicated by shortfalls and reversals in EFA achievement.

With this backdrop, civil society education campaign organisations and other EFA advocates need to accelerate efforts in engaging governments to pay serious and sustained attention to meeting all the EFA goals and MDG education targets, especially for disadvantaged groups.

A Real World Strategies Approach to Advocacy and Capacity Development

Spurred by the challenge of pushing for accelerated progress towards EFA, the Asia South Pacific Association for Basic and Adult Education (ASPBAE) and the Global Campaign for Education (GCE) launched the Real World Strategies (RWS) programme to undertake realistic and practical education advocacy initiatives based on the actual conditions, experiences, and aspirations of people in communities.

EDUCATION WATCH TOOLKIT

A RESOURCE PACK FOR EFA RESEARCH
AND MONITORING

Introduction to the Modules



Asia-South Pacific

EdWatch

About ASPBAE

The Asia South Pacific Association for Basic and Adult Education (ASPBAE) is a regional association of more than 200 organisations and individuals working towards promoting quality education for all and transformative and liberating, life-long adult education and learning. It strives to forge and sustain an Asia-Pacific movement dedicated to mobilising and supporting community and people's organisations, national education coalitions, teachers' associations, campaign networks, and other civil society groups and institutions in holding governments and the international donor community accountable in meeting education targets and commitments, ensuring the right of all to education, and upholding education as an empowering tool for combating poverty and all forms of exclusion and discrimination, pursuing sustainable development, enabling active and meaningful participation in governance, and building a culture of peace and international understanding.

ASPBAE publications form an integral part of ASPBAE's information, education, and advocacy activities and efforts, and seek to support sharing and learning among education stakeholders, advocates, practitioners, analysts, and policy-makers. The reader is therefore encouraged to write to ASPBAE if they wish to use the material contained herein for reproduction, adaptation, and translation and to provide feedback that could help in further improving these publications.

The Real World Strategies (RWS) capacity building for Education for All (EFA) advocacy programme and the Education Watch (EdWatch) initiative are supported by the Global Campaign for Education (GCE) through a grant from the Dutch Government.

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Education Watch Toolkit
A Resource Pack for EFA Research and Monitoring

Asia South Pacific Association for Basic and Adult Education (ASPBAE)

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for Basic and Adult Education
Learning Beyond Boundaries

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Foreword

The expertise for research has traditionally been the exclusive purview of academics, consultants and think-tanks. This traditional approach, where researchers were normally detached and had limited understanding of and rapport with the informants, has been criticised as inadequate. In more recent years, participatory approaches and the involvement of local stakeholders in research undertakings have become more and more popular and credible. In these approaches, civil society organisations are also being tapped to conduct research, given their familiarity with and appreciation of the actual field situation.

The growing popularity of participatory research methods was further stimulated by the development of social indicators as effective tools of analysis. This was in response to the realisation that economic growth and affluence do not necessarily translate to better quality of life for all. Measures such as the Human Development Index (HDI) have become popular and powerful tools in social analysis and policy development.

Research plays a pivotal role in education and, specifically, in the achievement of the Education for All (EFA) campaign goals adopted during the World Education Forum in April 2000. The information gathered through research describes the state of education in a country and specific areas; the achievements and shortfalls; the critical gaps and magnitude of deprivation; and the reasons behind such gaps and deprivation. Research can also monitor financing, budgets, funding flow and bottlenecks. The findings from such studies on education can then be used to develop campaigns supported by concrete evidence.

In particular, the EFA campaign, which has committed itself to six goals to be achieved by 2015, is being measured using 17 education indicators. Overall accomplishment is summarised by the EFA Development Index (EDI), a composite measure based on key education concerns such as enrollment, survival, literacy, and gender development.

Various monitoring systems have been developed to track progress and measure actual achievements against the set targets. The EdWatch studies undertaken by ASPBAE is part of ongoing global initiatives to monitor the progress made in meeting the EFA goals. In its monitoring initiative, ASPBAE focuses on the disadvantaged and socially excluded groups who are left out in the development process and glossed over by official statistics that highlight only the achievements.

This resource pack presents useful research tools that encourage the replication of the EdWatch initiative. It is a concrete contribution in raising knowledge, confidence and overall civil society efforts in EFA monitoring and advocacy.

Maria Lourdes Almazan-Khan
Secretary General, ASPBAE

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ASPBAE Policy Team

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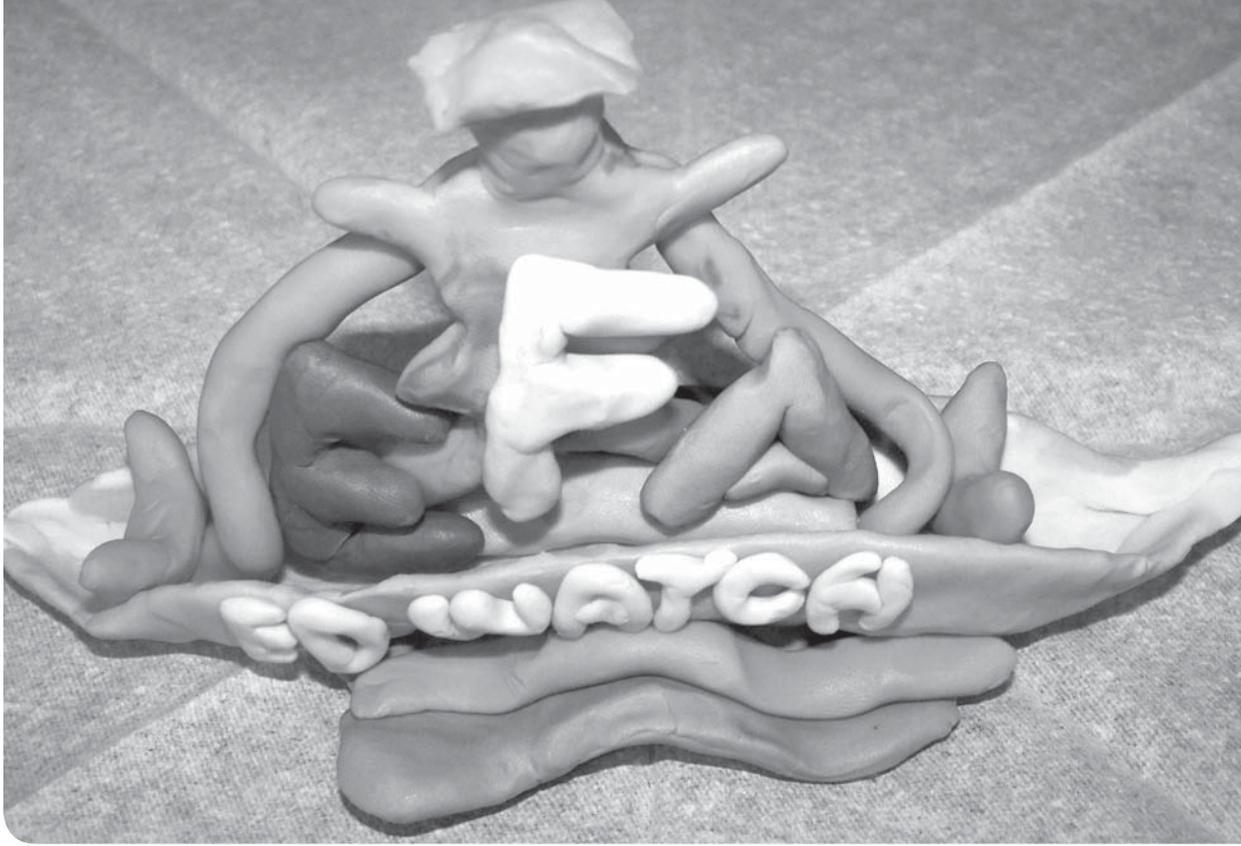
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Acronyms

ASPBAE – Asia South Pacific Association for Basic and Adult Education
CAMPE – Campaign for Popular Education (Bangladesh)
CED – Coalition for Educational Development (Sri Lanka)
COESI – Coalition on Education Solomon Islands
CSO – Civil Society Organisation
ECCE – Early Childhood Care and Education
EdWatch – Education Watch
EFA – Education for All
E-Net for Justice – Education Network for Justice (Indonesia)
E-Net Philippines – Civil Society Network for Education Reforms (Philippines)
FGD – Focus Group Discussion
GMR – Global Monitoring Report
GNP – Gross National Product
ISCED – International Standard of Classification of Education
MICS – Multi-Indicator Cluster Survey
MoF – Ministry of Finance
NCE – National Coalition for Education (India)
NAR – Net Attendance Rate
NEP – NGO Education Partnership (Cambodia)
NER – Net Enrolment Ratio
NGO – Non-Government Organisation
NSO – National Statistics Office
PCE – Pakistan Coalition for Education
PEAN – PNG Education Advocacy Network
PNG – Papua New Guinea
PRA – Participatory Rural Appraisal
PTA – Parent-Teacher Association
PTR – Pupil-Teacher Ratio
SMC – School Management Committees
SPSS – Statistical Package for Social Science
TVET – Technical and Vocational Education and Training
TEWN – Thai Education Watch Network
UIS – UNESCO Institute of Statistics
UNESCO – United Nations Educational, Scientific and Cultural Organisation
UNICEF – United Nations Children’s Fund



ASPBAE Capacity-Building Workshop (Bangkok, September 2008)

Introduction to the Modules

The Dakar Framework for Action: Where we stand in 2010

The World Education Forum held in Dakar, Senegal in April 2000 adopted the Dakar Framework for Action which committed the participants to the Education for All campaign. This commitment, which became known as and is henceforth referred to as the EFA campaign, was designed to achieve six education goals by 2015.

Five years to the set deadline, the status of achievements across the six goals are assessed in the *EFA Global Monitoring Report 2010, Reaching the marginalized*¹, a report published jointly by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Oxford University Press. This report, hereafter referred to as GMR 2010, made the following conclusions:

¹ EFA Global Monitoring Report is an annual independent report on the progress being made by the EFA Campaign commissioned and first published by UNESCO in 2002. The report covers 200 countries, with each of the annual reports focusing on a different aspect of the campaign. The 2010 report and all other earlier reports are available at <http://www.unesco.org/en/efareport/reports>.

On Goal 1: Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children

The road to success in education begins in the early years of childhood, and in fact, even in the mother's womb. Malnutrition and ill health are great obstacles to children even before they set foot in school. Around 178 million children under the age of 5 are victims of childhood stunting, which diminishes their performance capabilities for education. Pre-primary education participation has been slow and unequally expanding, rising from 33% in 1999 to 41% in 2007. Maternal and child health should be raised in the government's agenda, especially as part of poverty reduction strategies.

On Goal 2: Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality

Since Dakar, there has been rapid advancement in universal primary education. The number of out-of-school children of primary school age decreased from 105 million to 72 million. But it is predicted that an estimated 56 million children would still be out of school in 2015 if the business-as-usual attitude persists. Achieving Goal 2 is still feasible, but the caveat - as is asserted in the 2010 GMR - is that governments and aid donors will need to step up their efforts within the next two years.

On Goal 3: Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes

The economic and social changes of recent years and its attendant rising levels of youth unemployment have amplified the significance of technical and vocational education and training (TVET). Alongside the expansion of secondary education, there has been improved participation in TVET. However, progress has been uneven and there remains a hugely wide variation between rich and poor regions. While developed countries have achieved near-universal secondary education, of which TVET comprises 16%, developing countries register only 9% TVET participation from its secondary school enrolment rate that is as low as 2% in South and West Asia. Other than beating the numbers, the challenge is in devising vocational education that is responsive to the labor market and will therefore result in successful employment.

On Goal 4: Achieving a 50 percent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults

Recognised as the most neglected of all education goals, literacy is expected to be out of reach for the estimated 710 million illiterate adults in 2015. At present, an

approximate 16% (759 million) of the world's population aged 15 and over lack the basic skills for reading, writing and numeracy. Moreover, 80% of this population is concentrated in only 20 countries. Governments are strongly encouraged to place heavier priority on literacy and reflect this in the national plan and budget.

On Goal 5: Achieve gender parity by 2005, gender equality by 2015

The gender divide has been slowly diminishing, with the share of girls in out-of-school population going down from 58% to 54%. The number of adult female literates has also increased by 14%, compared with only 7% for adult males. However, being born a girl still implies a greater disadvantage for accessing education. Sub-Saharan Africa and South and West Asia continue to register the largest incidences of gender disparity. The enormous challenge to attaining this goal is the transformation of perceptions of the roles of girls and women in society.

On Goal 6: Improving all aspects of the quality of education and ensuring excellence of all so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills

Improving education is not a mere numbers game. Beyond increasing attendance in and completion of school, the more critical objective is providing education of high quality. There is high inequality in learning achievements worldwide. International learning assessments in Africa, South Asia and Latin America have shown countless evidence of the poor performance of children in school. It has also been demonstrated that parental income and educational attainment are critical factors affecting children's learning achievements. Providing good quality education will also entail the recruitment of qualified teachers and the supply of needed learning materials.

Recognising considerable progress already achieved, GMR 2010 nonetheless estimates that low-income countries still have to deal with a staggering US\$16 billion annual financing gap for basic education until 2015. The gap widens to US\$25 billion after factoring in lower secondary education. In addition, fears continue to linger that the recent global financial crisis, along with the unwarranted price hikes in food and fuel, will halt or even reverse the gains already achieved. In response, the international community has called for a much bigger increase in aid for education to assuage any negative crisis impacts.

The gap is daunting, to say the least, and the challenge it presents is undoubtedly overwhelming. Beyond augmenting financing investments, national governments will need to put education at the top of its priority list. It will especially need to strengthen partnerships with civil society organisations (CSO), communities, donor agencies, and the private sector to ensure proper management and delivery of the limited resources.

The EdWatch Initiative

Education Watch or EdWatch is a monitoring initiative undertaken by ASPBAE and its 11 partners, national education coalitions in countries across Asia and the Pacific². It is an independent, citizen-based assessment of the education sector designed to keep track of the progress being made in achieving the EFA goals, with focus on disadvantaged groups.

Launched in 2006, EdWatch sought to determine the magnitude of the EFA gap, analyse the underlying causes of deprivation, monitor changes over time and identify factors that can account for such changes. Its work is designed to inform policy, formulate well-targeted programmes and identify and locate beneficiaries to effectively cover the EFA shortfall.

In concrete, the work that EdWatch does includes the following: (1) Independent review of the state of education, including literacy, through research; (2) Publication and dissemination of the findings of the research to all stakeholders at various levels in order to enhance public awareness about education and promote public participation in educational policy dialogue; and (3) Advocacy in support of quality Education for All.

In conducting an independent review, EdWatch's challenge was the development of effective instruments that can be used to monitor EFA indicators, including budget allocation and spending. ASPBAE, the participating coalitions and their local partners worked together to face this challenge and to date, boasts of a number of successful outputs that have supported and strengthened CSO lobby engagements and advocacy campaigns.

In Bangladesh, the Campaign for Popular Education (CAMPE) pioneered the Education Watch model, with the modules and methodology used as part of the 2008 literacy assessment survey jointly undertaken by the government, CAMPE and UNESCO.

In the Philippines, the EdWatch research instruments were adapted and applied to assess the impact of armed conflict on education. The budget tracking tools that were developed in five South Asian countries as part of the EdWatch initiative were used as capacity-building mechanisms to enhance the budget work of education coalitions, local partners and members of the Global Campaign for Education (GCE).

In Papua New Guinea (PNG), the education ministry and statistics office expressed interest in collaborating with the PNG Education Advocacy Coalition (PEAN) to expand the literacy survey conducted as part of the EdWatch initiative to all provinces of PNG. Since 2008, the literacy survey has been replicated in two other provinces.

² EdWatch was initially composed of national coalitions from seven countries. Since its launching in 2006, four more coalitions joined, thereby expanding coverage to 11 countries, namely India, Pakistan, Bangladesh, Nepal, Sri Lanka, Philippines, Indonesia, Cambodia, Thailand, Solomon Islands, and Papua New Guinea.



Right to Education (RTE) Rally, National Coalition for Education, India

All the above-cited initiatives as well as other EdWatch work and findings were shared during regional consultations and conferences held throughout 2007. The reports were subsequently launched in sequences up until the first half of 2008³.

Why this toolkit?

Since sharing the EdWatch results, many organisations from across the region and beyond have expressed interest in replicating the initiative. Academic institutions, government agencies and international organisations have also conveyed keen interest in adopting a similar research and monitoring initiative.

This toolkit is a concrete response to this interest. It is a resource book designed to make available to researchers, practitioners and advocates the contexts, tools and methodologies that have so far been developed by EdWatch for education research and for tracking the progress of EFA goals.

Having identified key areas of inquiry that it regards as critical in tracking the progress of EFA, EdWatch proceeded to design the research and instruments that can be used for some of these key areas. These are presented here in separate modules as follows:

Module 1: Monitoring Education Access and the Out-of-School

Module 2: Literacy Assessment

³ The reports can be found at the ASPBAE website: <http://www.aspbae.org/>

Module 3: Education Budget Tracking

Module 4: Monitoring School Fees and Education Cost

Module 5: The Wealth Index

The above modules provide a discussion of the current status and progress in each of the subject areas and highlight the particular importance of monitoring these indicators. Further, the modules provide guidance on the information that should be obtained for each area as well as the appropriate research methodology to use. Finally, sample instruments that have been successfully used and tested are shared. Gender is a crosscutting concern in all the modules.

As an accompaniment to the above modules, this toolkit provides an overview of the research process. This can be found in the annexure of this Introduction.

By imparting the EdWatch experiences and learnings, this toolkit seeks to:

- Encourage and support civil society-led research on and monitoring of EFA progress
- Provide a guide for training on EFA monitoring and financing
- Augment education advocacies promoting the interests of the poor and marginalised
- Facilitate participation in and improvement of the governance of education

Never too late for an extra effort

As we all press forward with our respective advocacies, it is important that we bear in mind the need to bridge knowledge and experience gaps. With the compilation of this EdWatch toolkit, we hope that we are not only able to paint accurate pictures of the education situation in our region, but are also able to successfully share insights, experiences and useful materials on how pictures can be more accurately and clearly painted.

Voluminous information is necessary to understand how governments and donor agencies are shaping education worldwide. It is hoped that this toolkit would be able to help prepare advocates of any nationality, gender, socio-economic class, learning background or ethnic/religious affiliation in understanding the education scenarios in their areas, and in using the research findings as stepping stones to stronger and more effective campaigns.

While the 2015 deadline for the EFA goals looms ever closer, let us encourage one another to pick up the pace and put in the extra effort. It will never be too late to advocate and mobilise for a good cause.

We sincerely hope that this humble effort can help bring the EFA campaign closer to its goals.

Annexure

Overview of the Research Process

Research is basically the search for knowledge based on facts obtained through a systematic method of investigation. It is designed to respond to questions we raise and motivated by the interest to know more of the world we live in and the people we live with. Research seeks to explain how people act and relate with each other, how communities and institutions operate, why certain situations happen, and what creates these situations. The research findings become the basis to solve problems identified and effect changes in institutions and the larger society.

Research is a scientific inquiry which utilises a systematic approach with defined procedures and steps to gather facts and evidence to answer specific questions. It is undertaken in an objective manner by making sure that biases in methods and interpretation of results are reduced if not eliminated. The data and findings of the research must be verifiable and can be replicated by an independent group. It is good practice to validate the research findings with the people who are most familiar with or most affected by the situation. The research process entails careful recording, documentation and sharing of all data and methodology to make it available for scrutiny by other researchers.

There are different types of researches but they entail basically the same steps. The process starts with defining the research question or problem statement. Based on this, the research design is formulated and the instruments developed and tested; data are collected, processed and analysed; the results are validated; and the report is prepared. The research design is an important aspect of the process as it sets the direction of the study, identifies the sources of information, formulates the methods for data collection and indicates the tools for data analysis.

The Problem Statement

The first step in the research process is formulating the problem statement that needs a solution. It provides the context for the study and generates the questions to be answered. It presents the key issues, the ideal situation aspired for, and the consequences of the problem if not acted upon. The problem statement should clearly

define what the problem is and why it is important. It also limits the scope by focusing on specific concerns and variables to be studied.

Once the problem statement has been clearly stated, the general and specific objectives of the research can then be enumerated. These objectives are crucial in designing the data collection tools and in analysing the data. Researchers have to bear in mind that the findings and conclusions will have to meet these objectives and answer the research questions raised.

The Research Design

The research design is the logical and organising structure that gives direction to the research inquiry, ensuring that the information obtained will enable the researcher to meet the objectives set and to answer the questions raised. “Design” should not be equated with “method”, as the research design is more than just a technique of collecting the necessary data. A design is the research blueprint that would specify the kind of information/data to be collected and needed to evaluate a programme, and to accurately describe a particular situation or phenomenon. It sets out the population or respondents from whom the information will be gathered. Once all these are determined, other elements of the research process can be finalised, such as methods for data collection, analysis and reporting.

How does one go about putting the research design together? The researcher has to carry out a review of relevant literature, or a study of written materials related to the topic of the research question/problem statement. These materials can include previous research conducted on the topic, journal articles and evaluation reports. This review will guide the researchers on the kind of information to collect or to discard, the methodology for collection and the questions to ask from the informants based on other researchers’ experiences.

The literature review will also familiarise the researcher with the prevalent theories and concepts that others have found to be relevant to the problem statement. In addition to steering the data collection of the research process, the review will give the researcher different perspectives for the data analysis stage. It must be clarified that the research process is not a rigid linear sequence of events. There is space for some flexibility in refining the problem statement and research design based on the literature review.

Developing the Research Instrument

Research instruments refer to the data collection tools. The instruments guide the researcher or research team on the kind of information to collect, the questions to ask and who to ask them from. Formulating questions for research instruments is

not a standardised procedure, and the process varies as dictated by the research objectives, research proponents' expectations, and the social, cultural and lingual environment of the study. The questions in the instruments can either be close-ended questions, meaning that the informant is to choose from a set of provided answers, or open-ended questions, whereby the informant is free to provide his or her own answers.

The type of research instrument to be developed will depend on the data collection methodology appropriate for the research study. For social researches such as those conducted by EdWatch, the following research instruments can be developed:

- *Interview Guide* is a list of open-ended questions which an interviewer asks the informant. Though the questions are set, the interviewer should be capable enough to ask probing questions and to follow-through informants' vague or incomplete answers to get clear responses for analysis.
- *Focus Group Discussion (FGD) Guide* is much like an interview guide except that the questions are directed to more than one informant. The list makes sure that the needed responses are collected, but it is also up to the FGD facilitator to keep the responses focused and should therefore be adept at probing for elaboration and at relating or summarising the numerous responses that would arise from the group.
- *Survey questionnaire* is a list of structured and close-ended questions that are administered by an interviewer or are answered by the informants themselves.
- *Checklist* is a specific type of questionnaire with a simple listing of items such as facilities in schools or housing amenities. In such listings, the surveyors simply check facilities or amenities that are present.

Manuals are put together containing instructions and reminders for the interviewer (also called surveyor or enumerator) and the field supervisor. They serve as handy reference on how to conduct the data gathering activity and how to respond to informants' questions. It should provide the interviewer with the introductory statement which indicates the purpose of the study, the proponents of the research, and the contact details which respondents can call if they have any questions about the research.

Pre-testing a research instrument is essential in ensuring that the relevant data are indeed gathered and that the data collection exercise is conducted in a credible manner. Pre-testing involves using and reviewing the research instrument in a real field situation, if possible in the actual research area, before the actual scheduled fieldwork. Doing so would give the data collection team some time to assess the effectiveness of the questions, whether there is a need to pre-categorise certain key answers, to put in additional answer options or to add other instructions and questions for interviewers. While pre-testing, make note of the reactions of the respondents to the questions and whether the instrument provides the information needed in the research. Pre-test

data should be analysed right away, to give ample time for finalising and adjusting the master instrument

Reliability is the consistency or the repeatability of the research instrument. In order for the instrument to be reliable, it has to yield relatively the same set of answers regardless of the interviewer or facilitator collecting the data or the period at which the instruments are administered.

Validity, on the other hand, is the extent to which the research instrument measures what it is supposed to measure. In other words, an instrument leads to valid conclusions only if it can answer the questions it intends to answer.

Data Gathering

Data collection follows after the research instruments have been developed, pre-tested and validated.

In general, there are two sources of data: primary and secondary. Primary data collection techniques entail the use of interviews, surveys, FGDs, experiments or direct observations. In such techniques, individuals are the primary data sources of information who provide first-hand, raw and un-analysed data. Secondary data collection, on the other hand, refers to the collation of information from a diverse source of documents, studies, databases and audio-visual materials which contain information collected, summarised and interpreted by other individuals and organisations.

Secondary Data Sources. In most cases, the first step in gathering data for a research inquiry is to consult existing and available literature, documents, reports and databases that may contain information relevant to the research topic. These information sources, referred to as secondary data are generally more economical and can be retrieved at the convenience of the researcher for as long as these are made accessible.

In the education sector, the national governments, UNESCO and other United Nations (UN) agencies are the biggest repository of information. Many official documents, publications and statistical data are now available online, making it convenient for the researcher to access education-related information. ASPBAE and the national coalitions referred to these information sources in the course of doing the EdWatch studies.

There are, however, limitations to the analysis that can be done using official government data. The literacy rates generated from national censuses are generally regarded as over-stated for various reasons. Administrative data on education are largely incomplete and usually lack disaggregation by geographic location, ethnicity, income class and gender, thus, making studies on the situation of disadvantaged groups difficult. It is for these reasons that additional information and primary data are

gathered to deepen understanding of specific concerns relevant to the advocacies of CSOs.

Primary Data Sources. Individuals, particularly students, children and youth, parents, household heads, teachers, school administrators, education officials and other stakeholders, are the main sources of primary data on the education sector. The most common methodologies for collecting primary data include:

- *Key Informant Interview* is a qualitative in-depth dialogue with individuals who are knowledgeable about the research topic. This methodology is usually chosen when the research calls for information which only a limited number of people are familiar about. It can also be used when discussing a sensitive topic, or when seeking candid and in-depth responses. An interview guide aids the interviewer in asking the questions, though the interviewer should be adept and alert enough to ask follow-up or probing questions to draw out clear and complete answers.
- *Focus Group Discussion* is a facilitator-guided discussion of a group of 6-12 people about the research topic. The objective is to gain in-depth insights to questions or discussion points from the research instrument and also from the interaction of the group members. This research methodology is particularly useful in assessing a range of opinions on a topic, expressed by participants from diverse backgrounds. In some FGDs, however, a homogenous group of similar profiles is preferred because the diversity could discourage some participants from expressing their views.
- *Surveys* involve a paper or computerised research instrument which can be completed by the survey enumerator/interviewer in the presence of the respondent, or by the respondent on his/her own. Survey questionnaires contain factual questions and opinion and attitude questions, and have either predefined response categories or allotted spaces for the spontaneous answers of the respondents.
- *Observational Field Research* entails observing the behavior of the research target population. The people could be aware of the observation (direct observation) or could be oblivious to the ongoing research (unobtrusive observation). Though this methodology yields valuable inputs, thorough training of field workers must be done to ensure reliability and validity of the information gathered.
- *Participatory Rural Appraisal (PRA)* is a data collection method that facilitates analysis of information and knowledge-sharing by local stakeholders to enable them to plan and undertake collective actions. PRA is often used in rural settings and makes certain that the voices of the poor and the marginalised are included. Tools for oral communication and visualisation (graphs and diagrams) are preferred and writing is sometimes discouraged. PRA contributes to community and individual empowerment by promoting participation and inclusiveness, enabling the production of research outputs that are representative of real on-the-ground situations. These outputs can consequently become foundations for

policy development that are similarly representative and inclusive.

On Surveys

The EdWatch studies utilised the above-mentioned methodologies for collecting primary data. While the survey proved to be the most difficult and challenging among them, most of the coalitions that participated in the EdWatch initiative recognised its particular importance and used it as a method. For this reason, a more detailed discussion on surveys is presented here.

A survey can either be a census where there is complete enumeration or a sample survey where only a fraction of the population is studied.

Complete Enumeration. In a complete enumeration, the required information is collected from all units of the target population and summarised to obtain the results. Such surveys cover for example all households in the community or all primary school students in a particular province. Complete enumeration gives actual or exact values of indicators to be monitored and are, thus, more accurate compared to sample surveys. This is usually done to obtain complete listing and profiling of residents in a particular area for the purpose of planning social projects. Highly informative results are derived from this type of survey because they do not involve the types of errors that usually occur in the context of sampling. However, this is more costly and, therefore, done at longer intervals.

The EdWatch studies in the Philippines and Indonesia utilised complete enumeration of households in the target communities. In the Philippines, coalition partners are involved in development work in the selected municipalities and districts, thus, the importance of doing a complete profiling of households and children. In Indonesia, the coalition conducted in-depth studies of the selected communities which entailed community immersion for extended periods and case studies of children and youth in the areas.

Sample Surveys. The information required to answer the research question need not come from the entire population. Data are instead gathered only from a sample of the population, which is a representative portion of it. In sample surveys, the information is obtained from a number of units selected from the target population.

The selection procedure is crucial to ensure that responses from participating individuals can be considered representative of the population's possible responses. The process of selecting this sample of individuals is referred to as the sampling method.

There are two types of sampling methods: 1) the probability sampling which uses random selection of research participants who all have an equal chance of being selected and; 2) non-probability sampling which does not use random selection.

Probability sampling allows the researcher to draw statistically-valid conclusions for the population although information was obtained from only a part of the group being studied. The findings are generalised for the entire population and the precision of the result can be estimated on the basis of probability rules. When compared with complete enumeration, random sampling can considerably reduce the number of units to be surveyed and, thus, reduce study duration and costs.

The different types of probability sampling are discussed briefly below:

- Simple random sampling gives everyone or every case in the population being studied an equal chance of being selected in the sample. This usually entails listing all members of the population and randomly selecting the sample by drawing lots or by computer-generated random numbers.
- Systematic sampling is the ordered sampling at fixed intervals from a list, starting from a randomly chosen point. It involves the selection of every kth element or name in a list to be included in a sample.
- Stratified random sampling involves dividing the total population into subgroups or “strata” of similar characteristics and then randomly selecting respondents from each subgroup. This type of sampling offers better possibilities of comparing responses of subgroups and of capturing insights from minority groups.
- Cluster sampling involves a plan in which the population is subdivided into groups called clusters and a sample of the clusters is selected; there should be small variability within clusters and large variability between clusters.
- Multi-stage sampling involves two or more stages, oftentimes combining different sampling strategies.

Non-probability sampling is usually done in cases when the research is exploratory in nature or when the sampling frame or list of names for the sampling is not available or difficult to construct. Non-probability sampling is also resorted to when time and resources are limited to cover the required sample size. There are three most common types of non-probability sampling:

- Convenience sampling is the selection of research participants who are available and willing to participate in the survey.
- Purposive sampling is the selection of participants whose characteristics are already predefined to comply with the intentions of the study.
- Quota sampling is the selection of participants based on defined percentages or number for specific characteristics.

While convenient, the lack of representation of the samples drawn from non-probability sampling methods compromises data validity. The research findings cannot be extended to the group or population under study.

Determining the sample size

Another important consideration in conducting surveys is determining the sample size or the number of respondents that should be included in the survey to be able to generalise the findings for the entire population. The sample size depends on the degree of confidence the researcher wants to achieve in the survey results; the margin of error that is tolerable; and the characteristics of the population under study. For a large population (greater than 50,000), the sample size is computed according to the following formula:

$$\text{Sample Size (Ss)} = \frac{Z^2 \times p (1-p)}{c^2}$$

Where,

Z = Z-value (normal probability distribution) that corresponds to a specific confidence level (e.g. Z=1.645 for 90% confidence level; 1.96 for 95% confidence level; and 2.576 for 99% confidence level)

p = the percentage of the population picking a particular choice as derived from the response distribution (a conservative assumption sets the response distribution to 50% to yield the largest required sample size)

c = margin of error expressed as decimal (e.g. +/- .01; +/- .05)

As an example, a sample size of 385 respondents is needed to achieve a 95% confidence level (Z=1.96) with a margin of error of +/- 5% (c=.05) and assuming a response distribution of 50% (p=0.5). These parameters are usual in most surveys, thus, a sample size of 385 (sometimes rounded to 400) has become a standard starting point for determining the required sample size. A higher confidence level and lower margin of error will require a larger sample size.

$$\text{Sample Size (Ss)} = \frac{(1.96)^2 \times 0.5(1 - 0.5)}{(.05)^2} = 384.16$$

For finite population (less than 50,000), the sample size is adjusted using the following formula:

$$\text{Sample Size (finite population)} = \frac{Ss}{\left(1 + \frac{Ss - 1}{\text{Popn}}\right)}$$

Where,

Ss= Sample size for large population as computed above

Popn= Population size

The internet contains tools for those interested in conducting surveys. For an exercise on estimating a sample size for a survey, the following link provides a sample size calculator – <http://www.raosoft.com/samplesize.html>.

EdWatch Surveys, 2006

In Bangladesh, an extensive national survey was conducted using a three-stage sampling design: the first stage is upazila (or subdistrict), the second stage is school, and the third stage is student. In all, 40 upazilas were selected using systematic sampling covering 313 primary schools with 18,625 randomly selected students and 283 secondary schools with another 16,529 randomly selected students.

In Papua New Guinea and Solomon Islands, the literacy assessment surveys were conducted in two provinces selected purposively. From each of these provinces, 15 villages were selected using simple random sampling and 30 households from each village were selected using systematic sampling. Eligible respondents were interviewed from the selected households. In PNG, a total of 3,329 individuals between the ages of 15 and 60 years were interviewed in the selected two provinces.

Data Processing and Analysis

Data processing entails organising and transforming data in a form that will facilitate analysis and interpretation. Processing involves the following steps:

- Categorisation – classifying responses into mutually exclusive groups for indicators such as age group, educational attainment, literacy skills, income level, wealth status and so on.
- Encoding – the process of transforming responses into simple alphanumeric codes to facilitate tabulation of survey results and computerisation. A coding manual indicating the variables, categories and corresponding codes guides the researcher in the encoding process. Data integrity and validation check must be done to eliminate errors in the encoding process.
- Generating summary tables – after data encoding and computerisation, one-way frequency tables can easily be generated using any database or statistical software packages. The frequency tables provide an overview and summary of the indicators being studied. Two way frequency tables can likewise be generated

to assess factors that may impact on the variables being observed such as geographical location, economic status, gender and so on.

- Application of appropriate statistical tools – statistical tests can be applied for more accurate measures and comparative analysis. For example, the incidence of school dropout by gender or economic status may be tested to find out if the difference is statistically significant.

With the widespread use of the computer, data-processing has become highly automated. An encoding software called CSPro (Census and Survey Processing System) developed by the United States Census Bureau is a user-friendly programme available online that facilitates data entry, tabulation, dissemination and export to spreadsheet, database or statistical software formats.⁴

There are several statistical software packages available for simple application. One of the more popular and older statistical software is the Statistical Package for Social Science more popularly known as SPSS. It is a user-friendly, menu-driven software capable of performing most of the basic (frequency tables, descriptive statistics, etc.) and advanced statistical tests (including regression analysis, analysis of variance and factor analysis).

After processing the data using the appropriate methods, a thorough analysis is undertaken to draw inferences and conclusions from the data culled from the research undertaking. Data analysis requires the researcher to establish trends, identify patterns and make deductions from the coded and categorised data.

The first step in analysing quantitative data, particularly those obtained from surveys, is to produce summary tables, charts and descriptive statistics for the indicators or variables used in the study. These tables and statistics provide basic information about the characteristics of the respondents such as age distribution, gender, school attendance, literacy level and so on. The mean, median, range and standard deviation of continuous variables such as age, household size and duration of schooling can easily be computed with the use of database or statistical software. Simple summary tables and charts showing the frequency counts and percentages of nominal variables such as gender, educational attainment, literacy level and location provide valuable information about the subject of the study.

Deeper analysis about the data can be done by comparing the relationships between two or more variables through cross-tabulation, comparison of means, correlation and other statistical tools. For example, comparing educational attainment by gender and by socio-economic status can provide valuable insights about factors affecting education access and performance. The average expenditure on education and school fees paid by

⁴ For more information and for downloads, please visit the CSPro website at <http://www.census.gov/ipc/www/cspro/index.html>

families from urban and rural areas can also be computed and compared for statistical significance.

Voluminous summary tables and statistics can be generated from survey data. Thus, it is important to carefully select and organise the presentation of tables, charts and statistics to show the most relevant or important information. Inferences made from the data should be linked to the study objectives and the specific questions raised at the start of the research process.

Qualitative data obtained from existing literature, documents, observations, interviews, FGDs and case studies can also be summarised into lists and tables for analysis. Response patterns are noted and discussion contents are analysed to provide deeper insights on the issues related to the study. Data obtained from actual experiences of people in their social context provide valuable information needed to address issues and problems related to education and literacy. For example, information culled from FGDs among illiterate women can elaborate on the economic and cultural barriers which prevent girls from attending school or from participating in literacy classes.

Report Writing and Presentation

Writing the research report is shaped by the intended audience of the report. The structure and tone should be aligned with the expectations and requirements of the audience. The background of the target audience and their familiarity with the research topic will determine how much information and details should go into the report. The report should be organised in a logical order. The main finding or related key findings should be highlighted and supported by details. The research reports may vary in their construction, but there are some key elements that are indispensable. Below are the main components of research reports in their ideal sequence.

- *Executive Summary* – presents a brief summary of the research, focusing on the problem statement, research question and major findings and conclusions
- *Introduction* – contains the problem statement, research question, rationale and objectives. A section is also devoted to the review of related literature.
- *Methodology* – discusses the methods, instruments and tools used in data collection and processing and, where applicable, the target population and sampling procedure. This section also discusses the limitations of the study and the problems encountered in the research process.
- *Findings* – present the main body of the research which contains the key arguments, assessment and analysis, including the formatted tables, charts and figures, and the appropriate statistics.
- *Conclusion* – closes the research report by summarising the results, answering the research question and stating the implications of the results.

- *Recommendations* – are the proposed measures or actions to respond to the problems identified and contribute to the enrichment of knowledge
- *Bibliography* – lists the literature and citations used for the research, presented in a proper referencing style
- *Annexures* – compile the research instruments used and any other relevant documents that the researchers think would be useful for the audience

Similar to writing the research report, the manner and content of presenting the research will depend on the target audience. The research output can be written as an article for academic journals or for popular print media. The research can also be presented as a policy brief in aid of legislation or policy review. Preparing a power point presentation highlighting the study findings is also an effective way to disseminate the research outcome in public forums and roundtable discussions.

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(Continued from inside front cover)

They found the need to pursue a vigorous, evidence-based policy advocacy effort, build a shared understanding and rally civil society organisations (CSOs) around common goals, establish credibility with opinion-framers and decision-makers, marshal evidence as part of a systematic strategy to influence policy, and generate reliable data on excluded and unreached sectors. Campaign calls and messages need to be supported by credible evidence, based on the real state of education in communities.

These publications are the result of an Asia Pacific-wide Education Watch process initiated and pursued since 2006 by the RWS programme of ASPBAE and GCE, in partnership with national education coalitions from India, Pakistan, Bangladesh, Nepal, Sri Lanka, Philippines, Indonesia, Cambodia, Thailand, Solomon Islands, and Papua New Guinea.

Building on the successful Education Watch model implemented by the Campaign for Popular Education (CAMPE) in Bangladesh, the RWS Steering Committee composed of ASPBAE, Education International, Global March Against Child Labor, GCE and the RWS Asia-Pacific staff designed and coordinated the Asia-South Pacific Education Watch (EdWatch).

EdWatch has emerged as an independent, citizen-based monitoring mechanism for assessing the status of education at the regional, national, and local levels, providing well-founded bases for advocacy and education campaign work and strengthening CSO capacities for policy engagement. EdWatch is designed to track governments' progress in achieving quality education for all, with a focus on addressing the education deficit for disadvantaged sectors.

Challenge to Civil Society

The daunting education crisis in the region challenges CSOs to sound a clear wake-up call to governments to shake off their complacency, go beyond rhetoric, summon the political will, and redouble efforts. There is a pressing need to assess existing education programmes, allocate more funds and resources for education, and institute targeted measures to address education disadvantage.

Since Dakar 2000, the progressive growth in strength and maturity of national education coalitions and their enhanced capacity to conduct research and policy analysis and advocacy have been apparent. Equipped with their EdWatch findings, CSOs and education stakeholders have defined more coherent education policy agenda for lobbying, disseminated information to enhance public awareness of education issues, effectively engaged governments in education planning and policy-making, and strongly asserted substantive CSO and stakeholders' participation in education governance at all levels.



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