Methods and approaches of collecting education data

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Sources of Education data

- Administrative data collection
  - Regular (School census, reporting)
  - Ad-hoc
- Sample surveys
- School inspection
- Population censuses
- Research and case studies

Administrative data collection

- Main source of education data
- Data are collected by both regular and ad-hoc manner
- Regular
  - School census (can be more than once a year)
  - Other types of reporting (financial, performance data, etc.)
- Ad-hoc
  - Sometimes depend on the need, data are collected by ad-hoc way (e.g., urgent policy intervention)

- Schools and other educational institutions regularly report data on students, teachers, expenditures, and physical facilities.
  - to gauge the capacity and performance of schools in relation to national education goals and plans;
  - to determine future development policies, plans and management arrangements.
- Many of the indicators (indirect measures of the quality of education) to measure the quality of education can be derived from the data collected by this method.
Some of the quality related indicators which can be produced from the data collected by this methods are:

- Resource allocation (Pupil-teacher ratio, student-text book ratio, class size)
- Performance (Repeaters, promotes)
- Teachers (Quality and experience of teachers)
- Education finance (Contribution and allocation of education finance)

Institutional-based data

Like other administrative data collection (such as health and social welfare), collected data face shortcomings related to data quality:

- Coverage
  - in many countries, administrative data are only available for schools in the formal government sector or for private schools that receive significant government funding
- Accuracy
  - non-reporting schools have been estimated
- Timeliness
  - Rarely available for a next school year for planning

Data typically provides limited information on the individual characteristics of pupils

- Almost no information on the characteristics of their households
- No information on the individual characteristics and family backgrounds of children who do not attend school
- However, it is an institutionalized mechanism and data are based on actual counts
- Useful for administrative planning and resource allocation which requires actual data
- Data can be available in time-series

Educational surveys - to gather a set of educational information together with other socio-economic data to answer specific policy questions (Student assessment survey, Literacy assessment survey)

Surveys which include an module on education - also collect educational data to support main objective of the survey (Labour force survey, Household expenditure survey)

Provide a snapshot of the situation at specific time

Could be used to cross-check the data from other data collections (e.g. Administrative data collection)
Educational Surveys

- Most popular way of assessing quality of education
- Demand-side and performance information
- There are many large-scale multi-national surveys to assess the learners’ performance
  - PISA, TIMMS, PIRLS, IALS
- Costly, complicated, required special skills and expertise
- However, you can get a very rich set of quality of education data at specific time which other ways of data collection cannot be provided
- If properly done, it can provide very reliable and comprehensive information on quality of education especially learning achievement

Surveys which have an educational module

- Main purpose is to collect educational data to support the main survey’s objectives
- Can provide some kinds of information on quality aspect as well as socio-economic background of learners
- Useful as supplementary information to analyze the quality of education data
- Measuring external efficiency
- Cost-effective to include special module designed to assess the quality of education (module on literacy assessment)

Population censuses

- Provide baseline data
- Main sources of population data
- Educational related data which are collected in censuses:
  - Literacy
  - Educational attainment
  - Attendance
- Additional sample survey can be conducted by targeting sub-set of population from the census to have more in-depth information

School inspection

- Useful way to assess the quality of education provided at school level
- However, it requires systematic procedures to transform observations and findings to measurable indicators
- This approach is useful to assess the indicators like
  - Governance of school resources
  - Teaching-learning practices
  - Teachers and learners’ characteristics
  - School discipline
  - Environmental and physical school situation which effect the quality of teaching-learning
Research and case studies

- Data are collected in connection with studies of educational problems
- Availability and coverage of the data would be limited
- Focus on specific subject area to address specific issues
- As a supplementary information to understand the specific issues in more in-depth

Sources of education data

### DATA ON EDUCATION AND LITERACY

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<td>Periodic school surveys</td>
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Approaches to collect data for education indicators

Selection of data sources to produce indicators should be based on
- Availability
- Regularity
- Technical soundness