making the most of assessment data

While it is relatively easy to collect assessment data, interpreting it can be harder. Schools have a large amount of data, some collected themselves, and some provided by other agencies. In order to make the most of it, teachers need to know what data they have, how to interpret it and how to use it to promote further learning.

What data are schools likely to have?

This leaflet will focus on numerical or statistical attainment data, which may be ‘raw’ or ‘value-added’. Common types are:

- teacher assessment data, showing pupils’ levels of attainment
- scores/standardised scores from tests (e.g. optional or national curriculum tests)
- levels derived from test scores
- question-level analysis of tests.

Schools are also likely to have background data, which can be used to analyse data about particular groups of pupils.

What does the data mean?

Data is useful for summarising information numerically. For example, saying that a pupil has attained level 3 is a shorthand way of saying that he/she has achieved the criteria described as level 3 criteria. Summarising data like this makes it easier to identify patterns and make comparisons.

However, in summarising data, detail is inevitably lost. Review your data carefully and draw conclusions with care, making sure the evidence backs them up. Don’t be afraid to ask critical questions. If data for a particular pupil or class is not what you expected, think about contextual factors that may explain the differences (see Interpreting information from different sources).

Handling data

Although most schools have computer-based data-handling systems, many teachers prefer paper records for ease of reference and updating. It is common for both to co-exist, therefore, with computer systems being updated at intervals from the paper records.

One advantage of computer systems is that data can be imported and manipulated, and graphical summaries (e.g. tables, stacked bar charts, scatter plots, etc) can be generated easily. It is useful to have a member of staff responsible for the database: familiarity allows the system to be used to full advantage.

National systems like RAISEonline, or data analysis tools such as those produced by the Fischer Family Trust, are useful for comparisons, for evaluating progress over time (contextual value-added measures) and for using data as a starting point for further analysis. Your school/local authority will be able to tell you whether they use such a tool or have developed other useful recording systems. They may also know of developments in other authorities and be able to advise on relevant training.
Advice from practitioners: handling data

- Rationalise the data you enter. Make sure it meets your needs.
- Ensure that you comply with legal requirements such as those in the Data Protection Act.
- Centralise responsibility for managing the school’s database and entering data, to make the process more efficient and to minimise the risk of errors or lost data.
- Seek out training and keep skills up to date. Allow the data manager/team to invest time in working with the system, increasing familiarity. This time will be repaid in what they can then achieve with it.
- If paper records derived from the electronic system are kept in classrooms, be aware of confidentiality issues.
- A tracking system that evaluates progress against expectations is useful especially if it allows you to import your own data.
- When passing data to other schools, consider what will be most useful (and most likely to be used). Minimise the transfer of data that will be ignored and try to hand over data in a useful format.
- If using graphs, think about what it is you want to communicate and to whom, then choose an appropriate format.

Using assessment data

Data can be most powerful in its potential for raising questions or stimulating debate. It is useful on different levels: for tracking individuals, for developing learning targets, for grouping pupils, and for whole-school accountability and reporting. Data from early or mid-year assessments is particularly useful for evaluating progress, since there is time following the assessments to respond to identified needs. National test data can also help school development by highlighting patterns of achievement. Other types of data can be used in this way too and background data enables analysis by factors of particular interest. Schools can also compare themselves with other similar schools; this benchmarking is most effective when focused on issues the school can control or change.

Advice from practitioners: using assessment data

- Look not only at present attainment, but at pupils’ rates of development as they move through the school. Use what you learn to shape future teaching.
- Refer to assessment data regularly throughout the year, to guide evaluations of progress. Compare achievement across subjects.
- Remember that pupils may appear not to progress at some times (e.g. while consolidating learning) and may progress more rapidly at others.
- Remember that pupils at the same attainment level may have different rates of progress and thus need different next steps.
- Question-level analysis (of national or optional tests) can be useful to inform subject, class or year-group planning, but ensure you draw conclusions carefully (e.g. avoid bold statements about attainment in a particular subject on the basis of just a few questions about part of that subject).
- Target your analysis of attainment data by background factors (such as gender, ethnicity, previous attainment or pupil mobility) to find out things that are relevant to your school and can, therefore, inform future practice/development.
- Remember that, in a small school/class/year group, individual pupils can have a disproportionate effect on percentages.
- Aim for a culture of using data constructively for positive, supportive change.