The Data Rich Setting

Chris Harrison

The modern school or college setting often has a wealth of data about pupils and students, from a variety of sources including both tests and on-going teacher/professional assessments. The data need not just be on academic progress, but could include other measures of development including personal attitudes towards themselves and others in the wider civil society.

Such data can be exceptionally useful. It enables schools and colleges to spot those students who are not making their expected progress and to target early intervention and support for learning. Specifically, it can help teaching staff adapt their teaching approaches to suit individual learner needs within the personalised learning agenda. It can help evaluate the success of teaching approaches and other initiatives employed by the setting to maximise workplace improvement and overall performance. It can suggest where there are individuals and groups at risk of falling behind at an early stage in their course programme. It can enable fruitful comparison with other settings and direct the allocation of resources appropriately.

The intelligent use of data has become central to the work of all professionals involved in education.

There are, of course, limits:

- The consequences attached to the data profoundly affect the accuracy and validity of the data. If your job depends on the results, objectivity is limited; data become a weapon rather than a source of enquiry. The most interesting data, therefore, is not necessarily the stuff you are held accountable for.
- Not everything of value can realistically be captured in numerical form and analysed. A heavy reliance on data to inform decision making can distort activity to reflect what is measurable rather than what is valued.
- Data collection itself has an opportunity cost. Time spent testing or assessing is time not spent teaching. Time spent analysing data is time not spent leading in other ways. The benefits of data collection and analysis must be weighed against the cost, and they are subject to diminishing marginal returns.

Above all, data does not provide answers. It poses questions and suggests avenues of enquiry which may lead into to the design and implementation of practical solutions. It tells you very little about how the results are achieved (for example, the risks taken to achieve them or the sacrifices made in other areas) and therefore very little about their sustainability. Smart managers use data but don’t rely on data. They get underneath the data to understand the how and the why of what is working well in the setting, what needs to improve and maybe suggest how to achieve that growth or effectiveness and

can also be used to celebrate and to spread the best of practice in the setting, thereby producing greater consistency by all sections, departments or educational faculties. It should also lead to improved continuity in teaching and learning in successive years in longer time course programmes.

We're not the only ones to think this, of course:

> *"There is no straightforward, formulaic link, for example, from contextualised or any other form of data to the judgments inspectors make during inspections. And data must never be used – by schools or inspectors – to furnish excuses for poor attainment or slow progress… so data are valuable.*
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> *"But data are only numbers on a page, or a spreadsheet on a screen. They only measure what has been tested. And people often only test what they feel they can measure. The challenge for schools, and for inspectors, is to understand the data available and get behind the figures to explore the strengths and weaknesses they indicate."*
> **Her Majesty's Chief Inspector(HMCI) Ofsted 2008**

The effective use of good data is particularly relevant to helping those who tended to do less well whilst at school/college. Barriers to learning come in many different forms and combinations. They can only be addressed when they are noticed; and they are more easily addressed if they are noticed quickly. Although a focus on the circumstances of each student is most helpful, analysis of the data can also reveal patterns of groups which tend to be at risk of under-achievement in a particular context. The setting can then redesign its processes and refine the organisation to help these groups right from the very start.

I'd therefore like to suggest ten principles associated with being a 'data rich' setting:

1. The school or college knows, discusses and acts upon the expected and actual progress and development of every student, measured at various points in each year, and connects it with salient characteristics.
2. The setting does not rely solely on data collected for accountability purposes.
3. Only as much data as is necessary is collected, and no more. The teaching staff and management constantly asks whether it will take meaningful action on the data and, if not, stops collecting it.
4. The prime use of data is early identification of progress and the application of relevant support.
5. The school or college possesses a range of tested strategies for dealing with different levels of progress and achievement.
6. All settings look for patterns in achievement to help identify groups at risk, and adapts its overall approach and organisation to support them appropriately.

7. Data is not used as an excuse for under-performance. The school or college asks how it can improve the way it teaches a student before categorising a pupil.
8. Settings know their students as people not data sets. Managers talk and lead more than they analyse.
9. Data is used to generate questions and hypotheses, which are subject to debate, enquiry and investigation.
10. Success is celebrated.

Chris Harrison

The Data Rich School

Chris Harrison
Epnosl BERLIN
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Range of Data

- wealth of data about pupils
- wealth of data about community
- wealth of comparative data
- Data includes tests and teacher/professional assessments
- not just academic progress

Intelligent Use of Data

- enables schools to spot children who are not making (expected) progress
- targeting early intervention and support
- adapting teaching approaches to suit individual and group needs
- Helps teachers and schools to evaluate success of teaching styles and approaches

Intelligent Use of Data

- identifying individuals and groups at risk of falling behind
- fruitful and fair comparison with other schools
- direct the allocation of resources to match need appropriately
- Limits judgments made on 'hunches and anecdotal' evidence

Caveats, cautions and limits

- consequences and objectivity
- data becoming used as weapon rather than a source of enquiry
- not everything of value can easily be captured in numerical form and analysed
- dangers in a heavy reliance and use of data to inform decision making

Time, time, time…

- time spent testing or assessing is time not spent teaching
- time spent analysing data is time not spent leading in other ways
- benefits of data collection and analysis must be weighed against the cost
- smart managers and leaders use data but don't rely on data alone

Who else agrees with this?

- "There is no straightforward, formulaic link, for example, from contextualised or any other form of data to the judgments inspectors make during inspections. And data must never be used – by schools or inspectors – to furnish excuses for poor attainment or slow progress… so data are valuable… But, data are only numbers on a page, or a spreadsheet on a screen. They only measure what has been tested. And people often only test what they feel they can measure. The challenge for schools, and for inspectors, is to understand the data available and get behind the figures to explore the strengths and weaknesses they indicate."

Barriers to success in school

- effective use of (good) data is particularly relevant to helping those who tend to do less well at school
- barriers (learning) come in many different forms and combinations… they can only be addressed when they are noticed… and they are more easily addressed if they are noticed quickly

10 suggestions

- schools know, discuss and act upon the expected and actual progress and development of every child and… progress is measured at various points in each year, and is connected with salient characteristics
- schools do not rely solely on data collected for accountability purposes

10 suggestions…

- only as much data as is necessary is collected, and no more
- prime use of data is the early identification of progress and the application of relevant support
- schools possess and use a range of tested strategies

10 suggestions…

- schools look for patterns in achievement to help identify groups at risk
- data is not used as an excuse for under-performance
- The school knows its children as people not data sets

10 suggestions…

- data is used to generate questions and hypotheses, which are subject to debate, enquiry and investigation
- and, lastly…
- success is celebrated!