Case Study: St. Bede's | Blackburn, UK | 1020 students | 11-16yr olds

Data Driven Decision Making

It is often said that successful business is run on numbers. Of course it isn't, it is run on the analysis of numbers. The business of education—providing the right resources at the right time so that learners can realise their potential—just can't be done without tools that help collect and present data in a form that is easily interpreted and offer analysis that enables educators to make continuous decisions about learning. Data is often used for administrative purposes with great effect in education. Promethean wants to drive this ability into everyday learning situations, removing the burden of data capture and analysis at the same time.

Promethean believes education is so important that it deserves systems that help drive improvement especially in these times when budgets are being challenged and success is becoming more and more important. We talk with one school, St Bede's on how important data is to them. St Bede's is an 11-16 mixed Roman Catholic comprehensive school located in Blackburn, Lancashire.

The school has an annual intake of 195 pupils with a current school population of approximately 1020 pupils. Students come from a variety of backgrounds and include the most able, and those with significant learning difficulties and physical disabilities. There are over 65 teachers assisted by 6 Higher Level Teaching Assistants,

a data manger, 7 administrative staff and 6 technical support staff. In addition, there are over 20 special support assistants.

Her Majesty's Chief Inspector, Christine Gilbert wrote in the 2008 Ofsted document, "Using Data Improving Schools":

"The intelligent use of data affects the work of all professionals involved in education. There can be no going back to the days when decisions were made on hunches and anecdotal information. But we have to present and explain data in ways which inspire trust and confidence, and lead to appropriate choices and judgements being made."

The use of data to drive school improvement is a relatively new phenomenon. It reflects the meteoric growth in technology which has driven the Information Age. It is one of the key factors in the year on year improvement in attainment in schools and colleges in the last ten years. Parallel to this explosion of information has been the emergence of a new facet of leadership, both at a senior and middle level. The ability to analyse data has become a key feature of leadership training such as Leadership Pathways and NPQH. It would now be unthinkable for a job description and person specification for these roles to not require an ability to effectively interact with data in school.

Most secondary schools now employ a data manager whose role is to create systems for collecting data and producing results that are easy to understand and useful for all school staff. This provides them with a means for targeting pupils who may need extra help, assessing pupils progress, estimating possible attainment, noticing trends in certain subjects, classes and different sectors of the school community. Whilst teachers can use the data for monitoring pupils it can also be used by senior leaders in identifying possible weak areas of a school; either the school as a whole, a particular subject area or even a particular teacher's performance.

The rush for data should not continue in an undisciplined, frantic manner. Schools need to adopt a new discipline and confidence in which data is collected and how it is used to bring about the optimum economy of scale.

Of course, in schools there is a whole range of quantitative data that includes RAISEonline, Fischer Family Trust, Cognitive Ability Tests (CATS), and Standard Assessment Tests (SATs). This data is enhanced by information provided as a result of modular examinations, 'early entry' examinations and internally generated progress data. It is all part of the battery of information at a schools disposal. The production of quantitative data has also being accompanied by qualitative such as staff, community, student and parent surveys.

Information may be power, but in schools it does not necessarily mean progress. To achieve this, schools must adopt ruthless protocols for data collection so that the manpower employed to generate information translates into student improvement.

At St Bede's, they have sought to refine their use of data by using the principals set out by their Data Analysis Project launched in 2000. This has led to four practices emerging within the school.

Firstly, the culture within the school has to be honest enough to ensure that grades and assessments reflect the reality of student performance and not what teachers believe (sadly, sometimes correctly) senior leaders want and need to see. Internally generated data has to be understood by all as being a measure of student performance, not a target. As Treadwell acknowledges:

"Estimates are not targets. Estimates can be used to support discussion leading to the setting of appropriately realistic and challenging targets."

Mike Treadwell, Fischer Family Trust 2009

When measures also become targets, the target culture will always win. Therefore senior leaders have had to be open with teachers about what they really want and create a culture of intelligent accountability with the staff.

Secondly, the response to data has to be shared. An example of this is the data analysis that many schools will carry out for the alignment of English and maths at Key

Stage 4. At St Bede's this regular 'War Room' involved the maths and English teachers, the pastoral staff, the SENCO and the senior leader team. This leads to a rapid response in terms of action and resources being deployed. Everyone is aware of the individuals who received additional resources and what action is being taken. It is an example of where accurate data leads to action that can also be measured. Again, this approach is echoed by the Fischer Family Trust:

"Data analysis should promote discussion, evaluation and planning. Analyses are provided to support internal self-evaluation. They are most effective when used in conjunction with local knowledge and experience."

Treadwell, 2009

Thirdly, they adopted the maxim that 'data raises questions; it does not provide answers'. They maintain that, although data may be powerful, it is not in itself useful. When used with tools like RAISEonline or FFT, data can support self-evaluation by comparing a student's progress against national comparisons but data analysis has to be allied to professional interpretation and an understanding of context. In some cases this has led to a need to further interrogate the data they have

generated. For example, following a recent student voice questionnaire there appeared to be a number of surprising responses from students, both positive and negative. For the data to have security, they asked the local authorities' school development team to come in and ask more detailed questions of the students to ensure the responses were accurate. This has resulted in changes to some key schools' practices and on their planning for IT software procurement.

Finally, they have become clearer about what data they want to generate and store in school. This has to reflect their priorities. The management and use of data in schools has become increasingly sophisticated but in order for its use to be effective, it needs to be simple and understood by all. At St Bede's this has led to the creation of 'The List'. Based on an idea gleaned from a visit to another school, The List is a file containing the key pieces of data, both academic and pastoral, for the current and previous year. Not only has this made the visits of the likes of Ofsted and school improvement consultants free from the scramble for information, but it also has made the school understand its priorities more clearly.

Making data management more effective was part of the work of the University of Glasgow's, Humanities Advanced Technology & Information Institute.

"Promethean believes that education is the fuel that drives economic growth and social progress. Effective teaching is the key to successful, collaborative and personalised learning-which in turn creates better prepared students, more prosperous nations, more secure societies, and more engaged global citizens."
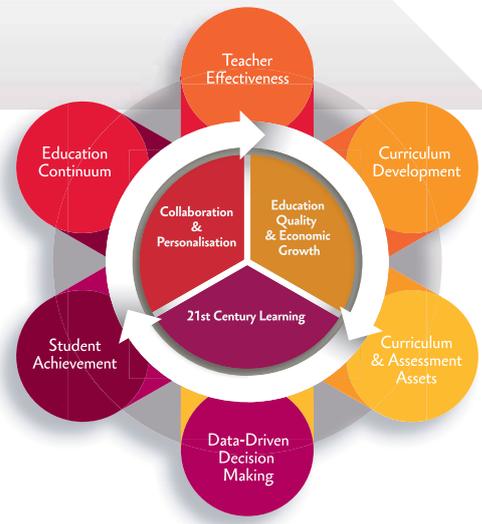
The group has produced a paper on four steps to effective data management and suggests conducting an audit of the data held regarding any data as an asset the benefits of which have to meet criteria.

To manage data holdings effectively an organisation must first be aware of the location, condition and value of its data. Conducting a data audit provides this information, raising awareness of collection strengths and identifying weaknesses in data policies and management procedures.

Conducting an audit enables an organisation to:

- **appreciate the full extent of its research data assets**
- **monitor holdings and avoid data leaks**
- **manage risks associated with data loss and irretrievability**
- **develop a data strategy and implement robust data policies**
- **improve workflows and benefit from efficiency savings**
- **realise the value of data through improved access and reuse**

Sarah Jones & Seamus Ross – University of Glasgow, Riavo Ruusalepp – Estonian Business Archives, Data Audit Framework – Four Steps to Effective Data Management (2008) JISC DCC

Once they hold the data and the school starts to interpret it in a meaningful way it then becomes necessary to have a plan in place to be able to provide suitable resources to deliver successful outcomes and facilitate effective teaching wherever they may be required. It is no use for us to be able to drill down in to the data we hold for no changes then to be developed. The management and use of data is a whole school activity and the whole purpose of the data is to then inform and develop school performance with the result that every child can reach their full potential.

To learn more about St Bede's visit:
http://clc2.uniservity.com/GroupHomepage.asp?GroupID=177301

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