

Principal's Sabbatical Report

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This sabbatical study programme encompassed two strands: the use of Formative Assessment or Assessment for Learning to improve student learning outcomes, and the use of the Value-added programme, especially MidYis and Yellis, from the Curriculum, Evaluation and Management Centre (CEM Centre) of the Universities of Durham and Canterbury, to raise student achievement.

Acknowledgements

I would like to acknowledge the Ministry of Education, PPTA and NZSTA, who worked together to establish the Principals' Sabbatical Programme. The Board of Trustees, senior staff and Principal's Secretary of Darfield High School supported my application for leave. In Appendix One, is listed the large number of professional in schools and universities who generously shared expertise and experience, both in New Zealand and in England.

Executive Summary

The value-added programme of the CEM Centres of the Universities of Durham and Canterbury can be used as a tool for raising student achievement.

The CEM Centres' Value-added school information belongs to the school and can be used professionally to improve outcomes of students and staff. It is significant that, in the UK where schools are overloaded with statistical data and summative national assessment, over half of the secondary schools continue to pay for and use the CEM Centre programme. Value-added data tells a school whether or not they are making a difference. Achievement data, as published in "League Tables", simply reports on achievement, which relates closely to socio-economic indicators and prior attainment.

Upskilling of staff in using Value-added data and predictors, combining with other student achievement information, allows teachers to work with children and parents to set curriculum targets. The three-year time frame for MidYis Years 9 to 11 is more difficult to establish six-monthly curriculum targets for, than for the two-year Year 7 to 8 programme.

Our school's RAFA Formative Assessment (or Assessment for Learning) project will continue as the focus of the school's vision. Introducing and embedding elements of formative assessment over a period of time ensures the concepts are embedded in classroom pedagogy. The main aspects are:

- sharing of specific learning objectives and success criteria
- effective questioning to improve critical thinking
- feedback and feed forward related to the success criteria
- peer and self-assessment related to the success criteria

The interactive, full pupil involvement in their learning was observed in classrooms visited in England, and also seen in the best practice at Darfield High School.

Professional development includes the coaching model to embed the pedagogy.

There are staffing implications. Data analysis is not a strength in most New Zealand schools. Schools need to consider a position of responsibility to give a suitably qualified person time to provide and analyse data and work with staff to relate this to targets and programmes.

The second staffing issue relates to learning leadership. The Specialist Classroom Teacher/RAFA (Raising Achievement for All) Leader is supported by the Vision Committee and Senior Management, but clearly has insufficient time for the breadth of the role. Further Enhancing Learning Leaders should become part of the school's staffing. Many English schools have appointed Deputy and Assistant Principals whose prime focus is leading learning and professional development of staff.

Developing individual targets for student learning requires a close relationship between classroom teacher and student, and time to work together with parents on targets. In the UK, schools found this difficult to manage and schools were trying different approaches, including a tutor teacher being responsible for all subjects for fifteen students. Other schools asked every teacher to work on targets with all students in their classes. There was evidence that schools were being closed for classes for full days to give teachers time to do this. In New Zealand, targeting can be limited: for example, Years 7 and 8 targets may be used for Mathematics, as part of the numeracy project. The use of control groups has also to be considered, to provide evidence of change, as part of the Action Research programme.

There is plenty of research on AfL underway internationally, and New Zealand schools should be part of this.

New Zealand's Ministry of Education should take a more active approach in helping schools by lending statisticians to schools, as some English LEAs do, and with professional development AfL programmes. The DfES (Department for Education and Skills) programme, the Shirley Clarke Action Research, and Birmingham's Local Education Authority, Birmingham Advisory and Support (BASS) programme give English teachers real professional development and support. There is much that New Zealand can adapt and learn from these programmes.

The English schools visited had received considerable funding to upgrade technology. Interactive whiteboards were the norm in classrooms. Technology upgrades are essential to increase the interactive nature of lesson planning and delivery as part of the AfL strategy.

Strand A – Formative Assessment or Assessment for Learning

Methodology

For the last three years, our school, as a member of the RAFA (Raising Achievement for All) cluster, has focussed on formative assessment pedagogy to improve student achievement. This professional development includes use of the cluster mentor, invited experts, readings, school-wide development plan with school evaluation, the Vision Committee's distributive leadership, and the upskilling of the Specialist Classroom Teacher.

The sabbatical programme included professional reading visits to recommended English schools, meeting with the head of the UK Assessment Reform Group, meeting with the Birmingham Local Education Authority Advisory and Support Service (BASS), attending a Birmingham Inset course and joining Shirley Clarke's conference on formative assessment, "Weaving the Elements Together".

What is Formative Assessment or Assessment for Learning?

The terms, assessment for learning and formative assessment, are both used by authors in the literature.

"Assessment for learning helps teachers to help pupils understand where they are in their learning, where they need to go and how to get there. By sharing clear learning objectives, providing informative oral and written feedback and using skilful questioning, teachers help pupils to take increasing responsibility for their own learning." (Wilson, 2006)

Black's and Williams' (1998) review of educational research concerning formative assessment, "Inside the Black Box", clearly showed that the use of formative assessment pedagogy improves test results and helps children to be lifelong learners.

Assessment for learning is *"Any assessment for which the first priority in its design and practice is to serve the purpose of promoting pupils' learning. It thus differs from assessment designed primarily to serve the purposes of accountability, or of ranking, or of certifying competence."*

"An assessment activity can help learning if it provides information to be used as feedback, by teachers and their pupils, in assessing themselves, to modify the teaching and learning activities in which they are engaged."

"Such assessment becomes 'formative assessment' when the evidence is actually used to adapt the teaching work to meet learning needs." (Black, P., etc, 2002, p.2.)

The educational research of Paul Black was the basis for development of formative assessment.

"Assessment for learning is the process of seeking and interpreting evidence for use by learners and their teachers to decode where the learners are in their learning, where they need to go and how best to get them there." (Assessment Reform Group, 2002, p.9.)

“Formative Assessment consists of four basic elements, underpinned by confidence that every child can improve and an awareness of the importance of children’s high self-esteem:

- *sharing specific learning goals*
- *effective questioning*
- *self- and peer evaluation*
- *effective and specific feedback and feedforward* (Clarke, S., 2005).

Shirley Clarke’s leadership of formative assessment practices has taken theory to classroom pedagogy. In the last eighteen months, Shirley Clarke’s Action teams’ results have led her to a change of emphasis. She now says that the cutting edge of formative assessment is feedback, by children, during lessons, modelling from the teacher. Children can critically judge their own and others’ work, based on the success criteria for the specific learning objectives.

Assessment for learning is:

- a powerful way of raising standards in schools. Pupils talking about their learning and the need for higher level thinking skills was observed in some classes visited.
- a way of planning lesson activities so that both teachers and pupils know what they are learning and how well they are learning. SLO (Specific Learning Objectives) with clear success criteria ensure pupils know what they should learn.
- effective feedback, quality questioning, dynamic interaction and self-assessment are core classroom activities.
- the interaction between teacher and pupils, and pupils and pupils, focuses on learning and questioning themselves and each other.
- pupils developing confidence to take risks in their learning and know they are learning.
- ensuring that pupils know what to do next to improve.
- pupils develop ways to use and apply learning, and a responsive, flexible approach to learning.

“Assessment for learning is effective because it gives pupils ownership of their learning, helping them to become independent and motivated and raising self-esteem. In doing this, it makes an important contribution to personalised learning. Pupils are able to understand progress in terms of improvement on previous best, rather than as competition with others.” (BASS AU Assessment Unit, 2005).

The Assessment Reform Group’s 2002 research-based principles of assessment for learning to guide classroom practice is to be found in Appendix Two, and reminds practitioners that AfL is not a passing fad, but excellent pedagogical practice based on solid research.

The UK Assessment Reform Group, a group of national educational leaders, is instrumental in promoting Assessment for Learning (AfL), working on a national strategy and developing materials for teacher professional development.

The definition used by DfES is:

“AfL has been defined as:

‘the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there’.

“AfL gets straight to the heart of good teaching by:

- helping teachers help pupils to take the next steps in their learning;*
- helping pupils help each other to take the next steps in their learning;*
- helping pupils help themselves to take the next steps in their learning.*

“AfL is founded upon the following 10 principles, namely, assessment for learning:

- is part of effective planning;*
- focuses on how pupils learn;*
- is central to classroom practice;*
- is a key professional skill;*
- is sensitive and constructive;*
- fosters motivation;*
- promotes understanding of goals and criteria;*
- helps learners know how to improve;*
- develops the capacity for self [and peer] assessment;*
- recognises all educational achievement.” (DfES, 2004, p.5.)*

The key message is that AfL is about *using* the information gained to improve learning. Paul Black writing in “Inside the Black Box” (1998) identifies the five key factors which improve learning through assessment:

- providing effective feedback to pupils*
- actively involving pupils in their own learning*
- adjusting teaching to take account of the results of assessment*
- recognising the profound influence assessment has on the motivation and self-esteem of pupils, both of which are crucial to learning*
- considering the need for pupils to be able to assess themselves and to understand how to improve*

The DfES AfL training materials aim to embed the principles of AfL in the teaching and learning process. The structure of these professional development materials is outlined in Appendix Three. There is no comparable national professional development programme for teachers in New Zealand.

The Elements of Formative Assessment or Assessment for Learning

Sharing Learning Goals and Success Criteria

Sharing learning goals and success criteria are the foundation of formative assessment, and ensure teachers and pupils know the purpose of the learning task. Prior to beginning a unit of work, it is essential to find out what the children already know. Talking partners, post box and brainstorming activities are used. Understanding and motivation improve when children have a part to play in the initial unit coverage planning and can see how the short-term learning objectives fit into the unit coverage. Teachers use flip charts and wall posters, data projectors and printed sheets to display this information for students.

Where teachers separate the context from the learning objectives, there is better transfer of skills across curriculum areas. The learning objective focuses on the process or key skill.

Example from Shirley Clarke

<i>Learning Objective muddled with context</i>	<i>Learning Objective</i>	<i>Context</i>
<i>To present arguments for and against vegetarianism</i>	<i>To present a written, reasoned argument, including 'for' and 'against' positions</i>	<i>Vegetarianism</i>
<i>To create an effective sea painting</i>	<i>To use water colours to create wash effects</i>	<i>The sea</i>

The success criteria are developed from the learning objectives, and the coloured traffic lights system helps students to evaluate where they are in the learning process. Green means, "I understand", amber "I am on the way to understanding", and red signifies a learning problem.

Learning objectives which have closed skills, like using direct speech, allow children easily to check their work against success criteria which are the elements of the learning objectives, like:

- use speech marks before and after the words spoken
- start new speech on a new line
- start speech with a capital letter

However, learning objectives with open skills allow for a range of achievement within a class.

Example: Learning Objective – To write a persuasive letter

Success Criteria:

- a statement of your viewpoint
- at least three reasons for this, with evidence
- at least two reasons for a different viewpoint
- striking up empathy with the reader
- recommended action
- a summary
- connectiveness between the reasons

While a student may have included all of these success criteria, the quality of the work may not be high. It is useful for teachers to model work – often at the beginning of the process – and for students to evaluate their own and others' work with ideas for improvement. The evaluation process, using talking partners, deepens the learning.

Success criteria create a framework for formative dialogue between teacher and learner and between learners.

Success criteria should, as far as possible, be the same for all students with the same learning objective.

These criteria should be generated in advance, but students need to take ownership of them, through helping to build the list of success criteria or at least participate in discussion of them.

Effective Questioning

Effective questioning is the strategy Darfield High School teachers are concentrating on in 2006. Management strategies for effective questioning include:

- wait time – most teachers give only two seconds. Three to five seconds is required, so all students participate, rather than switch off because there is always someone faster with the answer. Small whiteboards on which everyone writes their own answer ensure participation
- “no hands up” stops students opting out because they are slower than others to arrive at an answer
- “talking partners” involves everyone. The verbally dominant have to listen and the shy to participate. Shirley Clarke’s Action Teams have experimented with ways of setting up talking partners and have concluded that the most successful pairings are “random pairings”, which are changed every three weeks. Children like the fairness of the random pairings. If teachers pair for reasons like good and naughty together, children know which one of the pair they are. Shirley Clarke reports that the random pairing of talking partners is making a huge impact on the culture of schools and classes.

“More effort has to be spent in framing questions that are worth asking: that is, questions that are critical to the development of student understanding.” (Black, 2003, p.7.) Teachers ask mainly management, social and recall questions. Recall questions do not tell if everyone knows, unless all students answer.

Strategies for framing the question include:

- a range of answers. Example: In Mathematics, give a number of answers, including classic wrong answers and then children analyse why they are wrong answers. This ensures more thinking is happening.
- a statement. Example: All exercise is good for you. Agree or disagree and give reasons.
- right and wrong, or opposites. Example: Why is running an aerobic exercise and darts not an aerobic exercise?
- giving the answer, that is starting from the end and exploring the “why”. Example: Polystyrene is a good insulating material. Why?
- opposing standpoint or lateral thinking. Example: Should alcohol purchase be allowed at any age, instead of asking should the drinking age be raised?

These five strategies for framing questions help teachers to question more effectively and can be planned for in lessons.

Teachers and students use De Bono’s Six Thinking Hats and Bloom’s Taxonomy to focus their questioning on high levels of critical thinking. In classrooms in England and at Darfield High School, teachers have examples related to their subject matter of what these questions look like. Example: Bloom’s Evaluation – History Year 8 – Explain why the peasants who survived the Black Death were economically better off after the Plague.

Effective questioning in a supportive classroom climate encourages students to articulate their ideas and improves students’ learning.

Effective Feedback and Self- and Peer Feedback

Originally, Shirley Clarke separated effective feedback from pupil self- and peer evaluation. Recent Action Research suggests they are tied closely together.

Children should be continual evaluators of their own and others' work.

"One of the reasons peer assessment is so valuable is because students often give and receive criticisms of their own work more freely than in traditional teacher/student exchange. Another advantage is that the language used by students to each other is the language they would naturally use, rather than the 'school' language." (Black, 2003)

Feedback with a learning orientation embeds the belief that effort leads to success and that we can all learn and improve.

Traditionally, secondary teachers have given written feedback after the task has been completed. With focus on the learning objective and success criteria, specific improvement suggestions can be made during the lesson.

Students learn, from the teacher modelling pieces of student work, how to give integrated feedback to each other. The emphasis is on the inclusion of the success criteria and improving quality through looking for the best pieces and suggesting which piece needs to be improved. Later, the teacher can check their improvements. Too often, students do not carefully review their own work or check for errors, because the teacher does this. The success and improvement strategy puts the learning responsibility back with the students.

Improvement suggestions should focus on closing the gap between current and desired performance. *"It is effective to model success and improvement and compare quality using contrasting examples of anonymous work."* (Clarke, 2005)

Feedback must focus on the learning objective and the success criteria of the task, and give *specific improvement* suggestions to the student on how his/her work can be improved. *"For assessment to be formative, the feedback information has to be used."* (Black and Wiliam 1998, quoted in Clarke, 2005, p.87.)

The outcome of the debate on whether or not to grade all work is now clear. The greatest improvements follow comment-only feedback without grades or marks. If teachers give feedback for improvement and give a grade, then the feedback is ignored. Feedback must relate to the success criteria to improve the quality of work, and students must have opportunities to act on the feedback they are given. Grading, prior to summative assessment, results in complacency or demoralisation, depending on where a student is. Comments-only feedback (prior to summative assessment) results in huge improvements in secondary schools.

"Assessment that encourages learning fosters motivation by emphasising progress and achievement, rather than failure. Comparison with others who have been more successful is unlikely to motivate learners. Motivation can be preserved and enhanced by assessment methods which protect the learner's autonomy, provide some choice and constructive feedback, and create opportunity for self-direction." (Assessment Reform Group Assessment for Learning – Ten Principles, 2002).

Review

Regular review of where the school is at in implementing AfL could be assisted by use of the UK School Self-Review of AfL (see Appendix Four) or a modified form of this document.

Support for Schools

The schools visited in England, which were focussing on Formative Assessment to improve learning, were part of supported projects. The DfES national strategy on AfL provided excellent professional development coaching materials. The Birmingham Advisory and Support Services (BASS) evaluated the quality and impact of advice and support provided to schools by BASS consultants in the area of Assessment for Learning (AfL), in the year ended March 2005. While 2005 GCSE five A* to C passes in Birmingham improved by five percent, the average increase in the 48 schools which had adopted AfL was six percent. It is, of course, impossible to discern how much of this improvement was due to AfL, but it is clear that the relationship is positive.

In addition, 60 percent of the schools reported that *“school-based consultancy support from BASS has helped the school to lead and manage improvement in relation to AfL.”* (Wolstenhome, 2005, p.3.)

This evaluation commented that, while 72 percent of teachers in the programme provide clear feedback to learners on how well they are doing, only 54 percent provide clear feedback to learners on how they can improve their work. “Formative feedback” development is therefore a high priority.

On the website of the General Teaching Council for England, under Policy and Research, an article, “Promoting Quality in Learning: Does England have the Answer? (2006), demonstrates that approaches to feedback have cultural differences. The English teachers consider the formative function of feedback to be of greater importance than do French teachers. The English examples gave pupils clear indications of what they needed to do in the future and what teachers would look for in future work. The French feedback was a measurement of attainment for the specific task (ie summative).

Implications

In the UK, there is deliberate development of Assessment for Learning to improve student learning outcomes. The research work of Paul Black and others has been incorporated into deliberate professional development and national strategies, and into the work of LEA support and advisory services for schools. The tension between coaching students to pass the test for Key Stage summative assessment and real learning is evident; the AfL advocates are firm in their belief that AfL does raise standards. *“... all of these studies show that innovations which include the practice of formative assessment produce significant, and often substantial, learning gains.”* (Black and Wiliam, 1998, p3).

The direct leadership of educational researchers, the DfES and LEAs like Birmingham’s Support and Advisory Services Assessment Unit, are in contrast to New Zealand’s self-help approach for schools. The professional development available to schools through Inset training, full school support from LEAs, and Action Research projects led by Shirley Clarke was seen as very positive. The Assessment Reform Group influences national strategy.

The New Zealand Ministry of Education's stated aim of improving student learning needs translating into practical assistance for all schools that are ready to embark on improving learning through the pedagogy of AfL. Paul Black notes in his research that often the greatest gains in learning through AfL are made by the low achievers: New Zealand's education tail is well documented. A real commitment to professional development materials and mentors is necessary to make a difference.

For Darfield High School, the commitment to improving learning through the development of formative assessment as part of our RAFA project was made three years ago. That project has been extended with the EHSAS Enhanced Funding for a further three years.

As a school, we need to review the big picture of all the parts of AfL which have been the major thrust of staff (teacher and teacher aide) professional development for the past three years. The emphasis has been on:

- feedback and feedforward
- specific learning objectives
- effective questioning to improve levels of thinking skills

For staff, all aspects of AfL should become part of classroom planning for 2007, including use of success criteria and peer and self-assessment. The use of success criteria related to the specific learning objectives is vital for feedback and peer and self-evaluation.

Ongoing in-school professional development needs to continue with its formative assessment focus. Differentiation of specific needs should be clarified. For new staff, at least a full day's AfL induction and classroom observation should be included in the staff induction programme.

The coaching model of professional development aids the spread and embedding of the pedagogy. For Darfield High School, the RAFA leader, who is also the Specialist Classroom Teacher, has been the key teacher. Working alongside the RAFA cluster mentor, video recording lessons for teachers to view themselves and others, has been useful. At one Birmingham school, a classroom space has had cameras installed and a detached recording/viewing area established, so that teachers can get professional feedback without the class lesson being disrupted by overt video recording of the lesson.

In the UK, schools are able to employ ASTs to work with teachers, teacher aides and departments to improve practice. These positions initially generate additional funding. Our Specialist Classroom Teacher funding gives this teacher some time, but the plan is to extend the time available for professional coaching through the Enhanced Funding programme. New Zealand appears to be returning to the Innovation by Funding application model that had largely disappeared with Tomorrow's Schools. This philosophy is "alive and well" in the UK, and wastes professional time and expertise on preparing and justifying applications.

Most of the UK schools visited as part of the AfL study had deliberately created Deputy or Assistant Principal positions with a learning/teaching focus (rather than a managerial or discipline role). A senior position in a New Zealand school, with a prime focus on learning, to work with the Specialist Classroom Teacher and the Vision/RAFA Committee, would strengthen the professional growth.

Linking with other projects, both in New Zealand and overseas, is encouraged. Shirley Clarke's Action Research site and recent contact with a Melbourne school offer possibilities. Encouraging staff to keep journals and share experiences helps embed AfL pedagogy. Shirley Clarke was clear in her conference presentation that practitioners are contributing to research evidence and growth in successful pedagogy.

Measuring the outcomes of AfL is not simple, and UK schools rely on improvement in Key Stage testing. Trying, as we have, to separate the effects of the different elements of AfL is somewhat artificial. In future, taking a longer time span and considering the improvement in value-added from our MidYis and Yellis projects will be considered. MidYis Years 7 to 8, MidYis Years 9 to 11 and Yellis Year 11 give three sets of data. Value-added at the end of Year 10 would be useful but, at this stage, is not offered by the CEM Centre.

There will be the continuing difficulty that the Ministry of Education Planning and Reporting Requirements require annual reporting on targets. As Paul Black (1998 p15) commented, *“There is no ‘quick fix’ that can be added to existing practice with promise of rapid reward... if the substantial rewards ... are to be secured, this will only come about if each teacher finds his or her own ways of incorporating the lessons and ideas ... into her or his own patterns of classroom work. This can only happen relatively slowly, and through sustained programmes of professional development and support.”*

Strand B – MidYis and Yellis Value-Added Testing Programmes

Purpose

To improve student learning outcomes through the use of MidYis and Yellis value-added programme initiated by the University of Durham and adapted for New Zealand by the CEM Centre at the University of Canterbury.

Darfield High School has been part of this programme since 1999. The annual costs of the programme are approximately \$4000. To date, the direct effect on improved student learning outcomes has been smaller than anticipated.

The purpose of this study was to research and visit academics and schools where the MidYis and Yellis programme has had a significant impact on student learning.

Darfield High School participates in:

- Years 7 to 8 MidYis Value-Added programme
- Years 9 to 11 MidYis Value-Added programme
- Years 11 to 11 Yellis (beginning of year to NCEA) Value-Added programme

Background

The University of Durham's CEM (Curriculum Evaluation and Management) Centre's Value-Added programme is now operating in over thirty countries, including New Zealand. New Zealand's CEM Centre is part of the University of Canterbury. This study is primarily about the MidYis and Yellis programmes.

The CEM Centres define "value-added" as *"the measurement of relative individual progress showing whether a pupil kept pace, lagged behind or progressed further than others of like ability within the same subject."* (Boustead, 2004, p.66.) All students make progress through their schooling, ie value is added. Some students make more progress, and some make less progress. Value-added is the difference in progress between an individual and the average of all students in the cohort. The advantage of value-added data is being able to determine if children are making progress, irrespective of their starting point.

United Kingdom	New Zealand
MidYis – Year 7 to Year 9 (corresponds with Key Stage 3 completion) – have 180,000 pupils in 1292 schools	MidYis Years 7 to 8 – 4200 students in 40 schools
Yellis – Years 10 and 11 – two-year GCSE teaching programme	MidYis – Years 9 to 11 – 16,000 students in 93 schools
From 2007 – Year 11 adaptive tests	Yellis – Year 11 – 3500 students in 20 schools
Alis – Years 12 and 13 – 86,150 students in 1500 schools CEM Value-Added programme in half the schools – 3000 schools	Blis – Year 13 – 2000 students in 18 schools 12 schools do MidYis Year 9 and Value-Added Year 11, including Darfield High School

The CEM Centre's focus is on self-evaluation to lead school improvement. The data supports professional judgement. The data supplied to schools is confidential to that school (or cluster if paid by a cluster) and must not be used as a public marketing tool. In the UK, schools do attempt to use it to prove to OFSTED (their Education Review Office) that they are adding value. Schools in socio-economically deprived areas can show value-added, but still not be high in the league tables.

The CEM Centre's value-added data provides statistical measurement and analysis for school of the *progress* of their students by comparing the baseline data for each student and the subsequent assessment of their achievement.

In the UK (and at senior secondary levels in New Zealand), the political emphasis is on league tables, which rank schools on the basis of performance in examinations, and do not take into account first, the background characteristics of students, and second, the prior level of achievement students have. League tables often say more about the backgrounds of students than the quality of teaching.

"Evidence from England suggests that secondary school league tables... have this effect, with some secondary schools attempting to increase their performance in the league tables through rationing access to education. For example, students perceived by teachers to have ability, but are under-achieving, gain access to support ahead of those students who are seen as achieving to capacity and those students whose cases are seen as hopeless." (Boustead, 2004, p. 64.)

Activities Undertaken: Methodology

Analysis of school data for: MidYis Years 7 to 8
MidYis Years 9 to 11
Yellis Year 11

from previous years and ways the data has been used.

Professional reading as listed in references.

Interviews with Dr Therese Boustead at CEM Centre of University of Canterbury to determine ways of improving use of MidYis and Yellis data to improve practice.

Interview with Ray Burkhill of Ministry of Education, Christchurch, who successfully used Value-Added data in a Christchurch secondary school.

Research and Data Gathering Visits:

- Professional Reading
- Dr Therese Boustead at CEM Centre, University of Canterbury
- University of Durham, UK – Dr Robert Coe
- Secondary Schools in UK recommended by University of Durham - Park View Community School, County Durham; Durham Johnston Comprehensive School, Durham, plus Alderbrook School, Solihull, near Birmingham

Synthesis interview with Dr Therese Boustead to decide on ways of extending data use in 2007.

Work with staff and Board of Trustees to increase MidYis and Yellis information along with other student achievement data to improve student learning outcomes, including greater middle management leadership.

What are MidYis and Yellis?

The CEM Centres use independent baseline tests to:

- measure aptitude and fluency (not achievement and knowledge)
- and to avoid teachers and parents teaching to the test. They are test of developed ability (TDA). The administration of the test is standardised through use of tapes and clear instructions.
- The baseline data gives predictors of future performance based on the CHANCES graph. Schools' information is compared with the national cohort as to how individual pupils performed, their strengths and weaknesses, and the ability of the group.
- The data is not a label for life – it is another set of information to be used with other information and professional judgement. The CHANCES graphs show that, from almost any baseline score, students can achieve almost any grade. There are different probabilities for each grade depending on the baseline score.

The MidYis baseline tests are of developed ability and include:

- Mathematics and Vocabulary tests, which measure ability these areas, plus fluency and speed
- Skills – proofreading, perceptual speed and accuracy which require scanning and skimming skills which are essential for examination success
- Non-verbal activities like cross-sections, block counting, picture which measure the ability to see in 3D and spatial awareness
- Listening comprehension, which is critical for absorbing aural information and critical for learning

The baseline data schools receive includes:

- individual pupil results
- banding
- chances graphs

Schools can request data based on gender, school decile, and co-educational or single-sex status.

Schools can use data for:

- target setting – for individual children in subjects; classes, and subjects, and staff; school targets
- reviews and self-evaluation of individual children, classes, departments, teachers and school progress
- analysis of groups by gender, academic band, ethnicity, previous school
- planning for improvement
- identifying patterns and trends using three-year value-added data
- tracking pupil intake year by year
- advice on subject choices

Baseline data can indicate reasons for learning difficulties. For instance, many dyslexic students have their two lowest MidYis band scores in the Vocabulary and Skills sections. Low scores in Skills and Vocabulary indicates high possibility of lower quality written work and difficulties in English and Languages, while low scores in the Mathematics and Non-Verbal skills sections can make for learning difficulties, not only in Mathematics, but also in Design Technology and Science.

Chances graphs supplied with baseline data indicate potential performance and can be a valuable motivating tool for individual students. These chances graphs were used by English schools as part of goal-setting processes between teacher, student and parent.

Value-Added feedback includes:

- feedback for individuals
- feedback for each subject – given their abilities, have pupils done better or worse than expected? Departments should use this information over a three-year period as part of self-evaluation
- schools can look at the progress of groups and classes compared to others within the school or the national cohort
- the standardised residual graph compares subjects within a year and subjects over several years. If subjects are outside the confidence bands (positive or negative), attention as to what is making the positive or negative difference should be part of the self-evaluation and action plan process

In the UK, some of the baseline tests are now available to be completed on a computer. Results are then returned within days. Delays in receiving this feedback negate early use of the baseline data in New Zealand.

Computer adaptive tests are also available from the CEM Centre in the UK. These tests find and confirm the curriculum level a student is working at. The student begins tasks, and proceeds to easier or more difficult tasks until it is established which curriculum level the student is working at. These are not available in New Zealand.

In the UK, there is almost no difference between boys and girls in their performance on Yellis, but there is .42 of a difference in GCSE grade in average residuals – girls have progressed more over these two years.

Schools choose to be part of the programme – they pay. The CEM Centres are funded by the users, so are independent of Government funds. They are effective research bodies, because of this independence. A new project in Fife, Scotland (an area without league tables) is being funded by the Department of Trade and Industry to investigate peer tutoring using a knowledge transfer model. Durham and Dundee Universities are working with schools to transfer knowledge into schools.

In the UK, the CEM Centres ran conferences to demonstrate good practice to other use schools and to schools considering the system. In New Zealand, Dr Boustead visits schools on a three-yearly cycle, but is available by phone and email as required to assist. Some groups/conferences would be helpful to user schools to share how other schools are developing systems to use the data effectively to self-evaluate and improve practice.

Reasons to Use MidYis, Yellis, Alis (Blis)

A The need for a Baseline Assessment of Aptitude

- 1 *A Curriculum-free measure tells us something more*
Tests of developed ability measure students' academic aptitude and their potential (not what taught or coached for a specific test)
Aptitude tests distinguish between high ability and hard work and low ability and under-achievement
Some dyslexic patterns can be identified

- 2 *Not Using Attainment as a Baseline – one person's output is the next person's input.*
Example: if follow an ineffective teacher, will look good.
- 3 *Provide Profile of Students' Strengths and Weaknesses*
in Vocabulary, Mathematics and Non-verbal Domains
- 4 *CEM Assessments are Standardised Over Time and Across Schools*
so can compare students and cohorts between years (NCEA is causing problems with this because of the year by year variability in external Achievement Standards and the increasing use of Unit Standards).
- 5 *Quality Assessments which are Easy to Administer*
 - o research basis for assessments
 - o measure aspects of cognitive functioning and give good correlations with future academic performance
 - o designed for schools to use to inform teaching

B Quality of Value-Added Feedback

- 6 *The Model is Simple, Fair and Transparent*
 - o it supports professional judgement, not replaces it
 - o teachers need annual upskilling so can analyse results, including sub-groups
 - o use of regression lines – in New Zealand less stable in Yellis since NCEA introduced
- 7 Subject differences are shown so predictions are specific to that subject and value-added analysis compares performance only with other students in the same subject. In New Zealand for NCEA a minimum of 14 credits per subject is used by the CEM Centre.
- 8 *All Students Count*
so the programme can show value-added of students who may not 'pass' a subject but have improved performance. Value-added data is clear for specific students and subjects/classes.
- 9 *Analysis from Individual Students Upwards*
shows negative and positive value added for each student in each subject, then by subject/class/ teacher. Teachers can interpret and account for results.
- 10 *In-School Analysis can be done by teachers who own their own data.*
- 11 *Software support data and CEM support are available to help.*
schools manipulate their own data, eg into classes, gender

C A Philosophy of Monitoring and Research

- 12 *Emphasis on self-evaluation, not external accountability*
 - o self-evaluation and owning information should result in improvement
 - o too often, accountability results in game-playing (NCEA – huge increase in Unit Standards uptake)
 - o data belongs to school (UK – some LEAs share data with schools)
- 13 *Evidence-based – from ongoing research*
 - o Independent of Government (and Ministry of Education in NZ)
 - o because not government-funded (funded by users) are prepared in UK to criticise authorities.

D Measure more than just Exams

14 Student attitudes, behaviour

Yellis, in New Zealand, gives information on the cultural capital of students' homes. Positive cultural capital has a positive relationship to progress and achievement.

"Nothing is more terrible than activity without insight" – attributed to Thomas Carlyle.

Value-added data gives staff insight, along with other professional data and judgement to:

- use baseline potential data to set targets for individuals and groups
- use chance graphs for target setting with individual students and parents. Chance graphs can be motivators, if used as predictors for future success
- diagnostic feedback to intake primary schools
- department data patterns should be analysed on a three-year basis to avoid one-year variations in value-added being overly emphasised
- to evaluate value-added data for individuals, groups (like ethnicity and gender) and classes and to build the capacity to use data effectively
- monitor achievement of targets with students twice yearly against agreed targets

Value-added data that lies within the bands of confidence (one and two standard deviations), either positive or negative, shows outcomes that are acceptable. Trends should be judged over three years.

Genuine target-setting requires time and interaction between students and staff and parents. In England, schools were undertaking different approaches:

- one teacher responsible for goal-setting and overview with a group of 15 students for all their subjects (after inter-staff consultation)
- each teacher responsible for goal-setting with every child in their classes – this appeared to be impossible to achieve
- making time available for student/parent/teacher interviews by closing the school for normal lessons
- changing the length and focus of form times so that students worked on individual Health programmes while form teachers discussed goals with individuals
- staff freed for three weeks during examination times to plan, review and develop action plans. This Sixth Form College paid for examination supervision.

Academic Data in Secondary Schools

The advantage of value-added data is being able to determine if children are making progress, irrespective of their starting point.

English schools expressed genuine concern about overload of data and the way it is used as major determinant of a school's success. This results in:

- teaching to the test – students are drilled so they pass Key Stage tests, but can take next three years to build to the capacity that apparently students can do. Goals are aligned to percentage required for examination success which results in loss of other parts of school culture.
- educating the whole child is less important than academic results: league tables throughout the school system put intense pressure on schools to achieve in limited areas.
- loss of school extra-curricular activities if not related to core speciality of school, like performing arts.
- languages are more difficult to succeed in, so schools are not so willing to be specialised language colleges.

- less academic students are not sought after as sixth form students because their results affect overall A Level examination results and league tables.
- OFSTED uses Panda reports (data) and school's self-analysis of this to make judgements about schools.
- GCSE Year 11 results – school is judged by percentage of students scoring five results between A* and C (expectations set nationally and by Local Education Authority).
- schools have used the system to succeed, for example allowing students to concentrate on four out of five subjects in ICT or Art at the expense of literacy and numeracy.
- in 2006 student GCSE results must include English and Mathematics. Some of the top 100 schools will drop from 80 percent pass rate to 20 percent pass rate.
Some New Zealand schools use Unit Standards to ensure students gain 80 credits for NCEA and improve league tables (currency and credit value of Achievement Standards and Unit Standards are not the same).

Findings

In England, schools are supplied with huge amounts of academic data from many sources, and national testing and published league tables are central to what is happening in schools. This is not necessarily positive.

“... in the context of school improvement, the attractiveness to politicians of phenomena, such as league tables and high-pressure accountability for schools, the potential for glory of appearing ‘to drive up standards’ and the ‘tyranny of the international horse race’ (Brown, 1998) are all pathological to the important business of genuine school improvement.” (Coe, 2006 p10)

School, department, class, teacher and student goals are aligned to the percentage required for exam success, leading to a loss of other parts of the school culture, because these are the goals being reported on. The Government talks about raising standards, not education in its widest sense.

MidYis, Yellis and Alis (Blis in NZ) continue to be used in the UK despite the other academic data available, because the baseline is curriculum-free and gives predictions based on potential, not on previous academic performance. Schools own this data.

In New Zealand, the value-added data available from MidYis, Yellis and Blis testing allows schools to judge for themselves, if students are making progress relative to their cohort and previous cohorts. As schools own the data, they can feel confident about using for self-evaluation and self-improvement; rather than for inter-school league table comparisons which fail to show the starting point (real value added).

The delay in receiving baseline data in New Zealand from the time of testing in Term One is caused by schools' slow return of tests, but does influence schools' use of the data.

The value-added feedback for MidYis Years 7 to 8 is received prior to the end of the school year, which gives the opportunity to compare value-added results with predictions, and undertake self-evaluation prior to goal-setting for the following year in a Years 7 to 13 school.

MidYis Years 9 to 11 and Yellis Year 11 value-added information is received at the end of Term One, by which time Heads of Departments have completed results analysis for NCEA Level One and have a new action plan in place. In the UK, one school visited used national regression graphs from the previous year's GCSE results to plot its own value-added data and made this available to staff before the beginning of the new school year. They found there was little difference in the statistics supplied later by the CEM Centre because of the stability of the national regression lines for GCSE.

Our school's intention is to try this approach in 2007 with recognition that the data may not be fully accurate, because over the four years of NCEA Level One, the national regression lines have flattened (ie are not stable), as more and more schools substitute Achievement Standards with Unit Standards to ensure high percentages of students gain the 80 credits required for NCEA Level One. Published league tables do influence what schools do.

Implications

- To heed the dire warnings from England.

The evidence to date is that the test gains are small and mostly related to *“teaching to the test”*. (William, 2001: Tymms, 2004). *Increased emphasis on assessment against narrow criteria reduces the curriculum, as the “tail wags the dog”, encouraging schools and teachers to teach to the test/target/inspection/performance management goal.* (Thrupp, 2004, p.42).

Intensification of workload leads to a decline in the information activities which improve relationships between teachers and students and which can therefore be “traded on” in delivering the formal curriculum... (Thrupp, 2004, p.42)

OSI in England has also encouraged those in schools to think of children, not in terms of the individual needs, but in terms of what advantages they can bring to the positional wellbeing of the school. This commodification occurs both in the initial recruitment of students and in the management of them once in school. OSI encourages schools to recruit bright, middle-class, “able” children. (Thrupp, 2004, p.42)

... decisions are made to focus on some students at the expense of others, depending on whether or not they are seen to have the potential to enhance their school's position in the examination league tables. (Thrupp, 2004, p.43)

... there are certainly lessons to be learned from England, but for the most part the lessons are about which policies to avoid, rather than which to adopt. (Thrupp, 2004, p.54)

- New Zealand schools should build staff capacity to use CEM Centre data along with other data (like ASTTLE, PATs, primary school and previous year's data) to improve student learning outcomes and to develop teaching/learning strategies and pedagogy. Annual professional development is needed to embed the use of value-added data.
- To focus on the development of the whole child and “education” and not narrowly academic data drivers. The UK political agenda on driving up standards to the exclusion of any other factors is not desirable for our students.
- MidYis and Yellis baseline, results should be used with other data and professional judgement to develop:
 - action plans
 - individual targets
 - class targets
 - department targets
 - school targets
- A possible framework follows for Years 7 to 8 individual student targets.

To be successful, targets must be agreed upon between teacher and child, with parent involvement. Without goal commitment, there will not be a shift.

Years 7 to 8 Individual Student Profile

MidYis Baseline	MidYis Predictor	PAT Results	Primary School Levels	ASTTLE Results	Year 7 July Curriculum Level		Year 7 End of Year Curriculum Level		Year 8 July Curriculum Level		Year 8 End of Year Curriculum Level		MidYis Value Added end of Year 8
					Target	Actual	Target	Actual	Target	Actual	Target	Actual	
Mathematics Number													
English Writing													
English Reading													

This type of action research ideally requires a control group. Half of the classes at each level should have the targeted goal-setting and review programme, while the other classes continue with their present looser goal-setting framework. From the individual targets, class targets and value-added can be developed.

To develop goal-setting systems which are manageable through class teachers or form teachers with time to meet students and parents to set goals and improve information flow.

At Years 8 and 10, where the Bridging Programme is already part of school's programme, students likely to be part of this programme could be identified earlier and have programmes begin sooner than currently happens.

- To continue to educate the “whole child” and not become data driven to the exclusion of a wider general education.
- As a school to create a position of responsibility with associated management units for data control and analysis.
- To remind the Ministry of Education of their responsibility in upskilling schools on data use. The schools in Durham County were appreciative of the way LEA statisticians helped schools.

The Year 11 Yellis baseline tests ask questions about personal “cultural capital”, like the number of books in the home, use of resources like libraries, museums and galleries, and the time spent reading for pleasure.

Strathdee and Boustead (2004) have analysed the outcomes and, not surprisingly, the students with higher achievement results correlate with those who have more than 50 books in the home, read for pleasure, use school and other libraries and visit museums and galleries. Increase in progress (irrespective of achievement) corresponds with the increase in percentage of Year 11 students with these cultural capital factors.

- MidYis (Year 9) and Yellis baseline data shows subjects individual students will have the greatest chance of success in, and also identifies students who are likely to be just above and just below minimum credits for NCEA Level One. This information, combined with internal assessment results, practice external examinations and teacher professional judgement, will help the school to work with these students and their parents to improve their NCEA Level One outcomes, through dialogue, additional classes, restricting entry into some standards to improve performance in others and using study leave time as further teaching/revision time.

Conclusion

In England, there is real tension between the demands of the summative assessment model of Key Stage testing and the associated league tables, and Assessment for Learning. The government's strategy of "driving up standards" endangers development of improved teaching and learning.

Schools which have embraced AfL do so in the belief that improved teaching and learning pedagogy will improve student learning outcomes and develop lifelong learners.

The two strands of this sabbatical study, the use of the MidYis and Yellis value-added data and improving student achievement through the use of formative assessment, are not mutually exclusive if used sensibly and professionally. New Zealand does not want to follow the UK into a data-driven system where the demands of summative assessment are paramount.

For Darfield High School, the focus for improvement is two-fold – establishing targets and improving student performance through formative assessment. The focus of targets begins with gathering information at the individual and group level, using value-added baseline data and predictions, other data and teacher professional judgement to analyse and identify issues before establishing targets for individuals and groups. Statistical data provides only one form of evidence from which to judge pupil capabilities and rates of progress. MidYis and Yellis data will be one of the tools used to establish and monitor targets. The information derived is used to trigger support for individuals. Borderline pupils, currently part of Years 8 and 10 Bridging programmes and NCEA 60-90 credit students, can be identified earlier and remedial action taken. The CEM Centre of the University of Canterbury has offered to work with the school to trial ways of using the value-added predictions.

The challenge is to continue to build on current practice while ensuring that education of the whole child is paramount. While the UK government policy is "the whole child matters", the reality for many schools is over-emphasis on Key Stage testing, to the detriment of education and extra-curricular school activities. This is not a path for New Zealand to follow.

References

- Assessment Reform Group (2005-2006) *The Role of teachers in the Assessment of Learning*, Harlen, W (Project Director), University of Cambridge, Faculty of Education.
- Birmingham Advisory and Support Service (2005). *Effective Assessment Principles and Practice*. Birmingham City Council.
- Birmingham Advisory and Support Service AU Assessment unit. *Partners in Learning* (DVD).
- Birmingham City Council Assessment for Learning, *Improving Learning and Raising Standards*. <http://www.bgfl.org/services/assess/a4learn.htm>.
- Black, P., Harrison, C., Lee, C., Marshall, B., and Wiliam, D. (2002). *Working inside the black box. Assessment for Learning in the Classroom*. London, Kings College, Department of Education and Professional Studies. London, nferNelson Publishing Co Ltd.
- Black, P., Harrison, C., Lee, C., Marshall, B., and Wiliam, D. (2003). *Assessment for Learning*. Open University Press.
- Black, P., and Wiliam, D. (1998). *Inside the black box. Raising standards through classroom assessment*. London, Kings College, Department of Education and professional Studies. London, NferNelson.
- Clarke, S. (2005). *Formative Assessment in the Secondary Classroom*. London, Hodder Murray.
- Clarke, S., Timperley, H., and Hattie, J. (2003). *Unlocking Formative Assessment. Practical Strategies for enhancing students' learning in the primary and intermediate classroom* (NZ edition). Auckland, Hodder Moa Beckett Publishers Ltd.
- Clarke, S. (2005). *Formative Assessment in Action – Weaving the Elements Together*.
- Core, R. (2006) *What do we really know from school improvement and effectiveness research?* In Kassem, D., Mufti, E., and Robinson, J. (Eds), *Educational Studies: Issues and Critical Perspectives*. Maidenhead: Open University Press.
- Department for Education and Skills (2004). *Key Stage 3 National Strategy Assessment for Learning Guidance for Senior Leaders*.
- Earl, L. M., and Katz, S., (2006). *Leading schools in a data-rich world, harnessing data for school improvement*. USA, Corwin Press.
- The Earls High School (2005). *Assessment for Learning. Assessment Strategies which promote learning*.
- The Earls High School. *Creating a Learning to Learn Environment*.
- Edwards, W., (2006). *Promoting evaluation as a key value in a school's culture*. NZ Journal of Educational Leadership Vol. 21, No.1, 2006.
- Midlands AAIA Assessment for Learning Group. *Managing Assessment for Learning*.
- Mulford, B., (2006). *Leadership for improving the quality of secondary education: some international developments*. NZ Journal of Educational Leadership Vol.21, No.1, 2006.
- Principal's Sabbatical Leave Proposal. September 2005.

Strathdee, R., and Boustead, T. (2004) *Measuring "Value Added" in New Zealand Schools*. New Zealand Annual Review of Education, 14:2004, 59-76.

TEEP Teacher Effectiveness Enhancement Programme.

Thrupp, M. (2004) "*Official School Improvement" in England and New Zealand. A Cautionary Comparison*. New Zealand Annual Review of Education, 14:2004, 39-58.

Wolstenholme, P. (2005). *Evaluation of the National Secondary Strategy, Assessment for Learning Strand*. Birmingham, BASS.

Wilson, K. (2006). *Teaching Assistants and Assessment for Learning*. Birmingham, BASS.

Promoting quality in learning: does England have the answer? (2006). General Teaching Council for England, <http://www.gtce.org.uk/policyandresearch>.

Websites

<http://www.assessment-reform-group.org.uk>

shirleyclarke@wi.rr.com

www.teep.info (Teacher effectiveness enhancement programme)

http://www.standards.dfes.gov.uk/keystage3/respub/afl_ws

www.gtce.org.uk – link to Research of the month

www.qca.org.uk

<http://www.bgfl.org.services/assess/a4learn.htm>

<http://kl.ioe.ac.uk/tlrp/arg> - Assessment Reform Group website

Appendix One

Visits: Value-Added Data to Improve Student Achievement

Dr Therese Boustead

Director
CEM Centre
University of Canterbury
Christchurch

Ray Burkhill (formerly Deputy Principal of Linwood College)

Ministry of Education
Christchurch

Dr Robert Coe

University of Durham
CEM Centre (*Curriculum, Evaluation and Management*)
Mountjoy Research Centre 4
Stockton Road
Durham DH1 3UZ

David Short

Deputy Principal
Parkview Community School
Church Chare
Chester-le-Street
County Durham DH3 3QA

Durham Johnston Comprehensive School

Crossgate Moor
Durham DH1 4SU

Principal – Carolyn Roberts

Assistant Head Teacher (Teaching and Learning) – Richard Bancroft
Assistant Head Teacher – John McKee
Assistant Head Teacher – Lower School (Years 7 and 8) – Christine Slattery
Deputy Head Teacher – Bernard Clark
Assistant Head Teacher (Sixth Form) – Steve McArdle
Assistant Head Teacher (Director of Language College) – D Ratcliffe
School Data – Mark Thornber

Steve Watson

Deputy Principal
Alderbrook School
Blossomfield Road
Solihull
B91 1SN

Conference in York

Value-Added, Baseline Assessment and much more...
Organised by CEM Centre of Durham University.

Visits: Formative Assessment/Assessment for Learning

Hall Green School

Southam Road

Birmingham

Interviews and lesson visits:

Galia Bowen – Assistant Head Teacher

Mr Ralph – Year 8 Geography

Mr Ingham – Year 7 History

Ms Pickering – Year 9 Physical Education

Mrs Sohal – Year 8 ICT

Ms Lynch – Year 7 English

Miss Wilkes and Miss Boliya – ASTs

Cardinal Wiseman Catholic Technology College

Old Oscott Hill

Kingstanding

Birmingham

Interviews and classroom observation with:

Christine Stewardson – Deputy Head Teacher

- Head Teacher

John

Marie – English

- Religious Instruction

Mr Sarkodee – Physical Education

TEEP worker from BASS

The Earls High School

Interviews with:

Ros Bartlett – Assistant Head Teacher

Geoff Alton – Assistant Head Teacher

Group of Year 10 students

Geoff Alton – Year 8 History

Elsa Pugh – Year 10 Mathematics

Interview with David Bartlett

BASS – Birmingham Advisory and Support Service

Assessment Unit

Martineau Research Centre

74 Balden Road

Harborne

Birmingham

David is also Chair of the National Assessment Reform Group

Inset training course in Birmingham run by Birmingham (BASS) Assessment Unit on Assessment for Learning

Shirley Clarke – Formative Assessment – “Weaving the Elements Together” Conference at Ashford, Kent.

Appendix Two

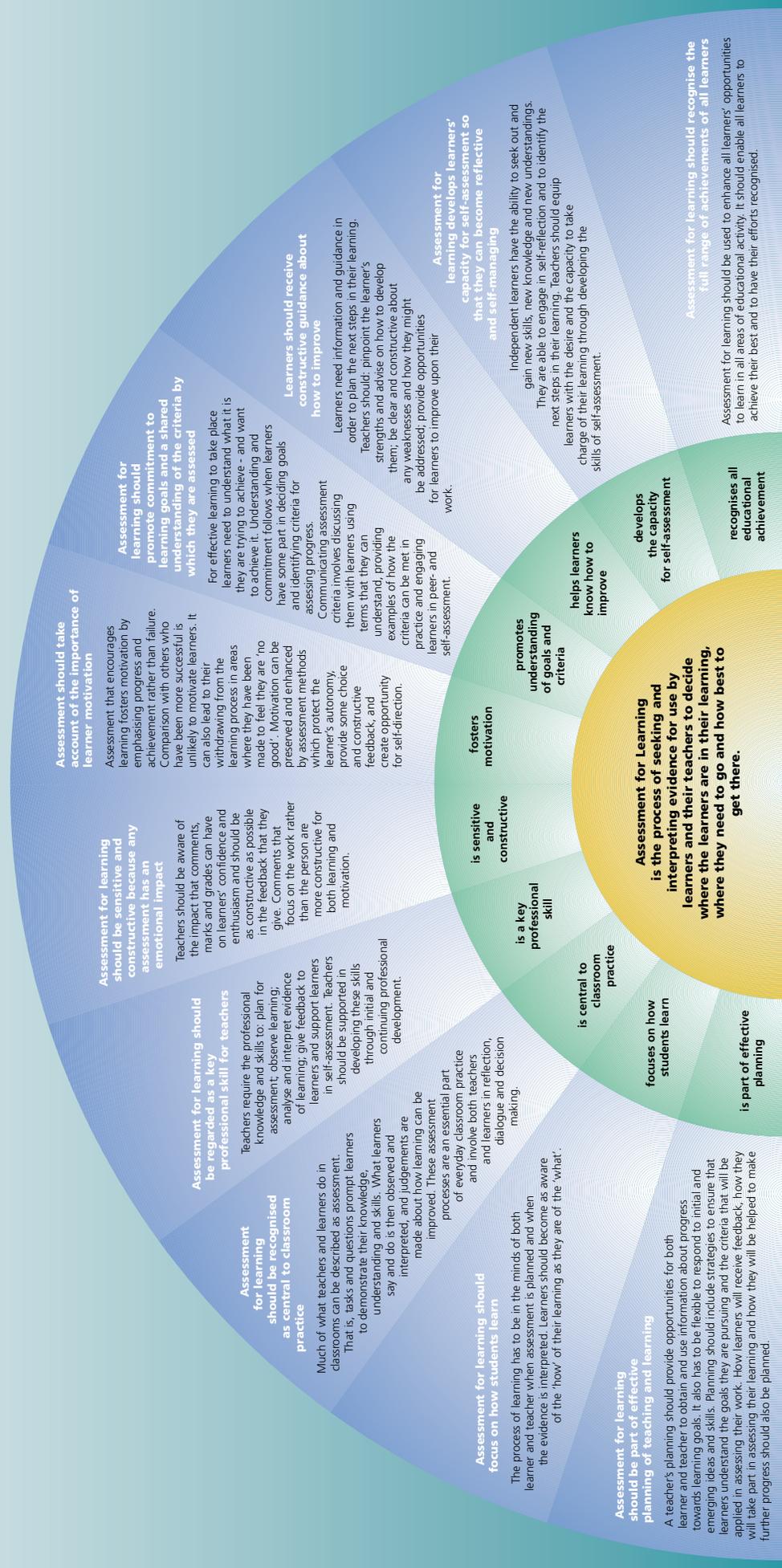
Assessment for Learning:

10 principles

Research-based
principles to guide
classroom practice

Assessment Reform Group

2002



Research-based principles of assessment for learning to guide classroom practice

Assessment for Learning

Assessment *for* learning is one of the most important purposes of assessment. It is not the only purpose and is to be distinguished from assessment *of* learning, which is carried out for the purposes of grading and reporting (ARG, 1999). A review of research into classroom assessment (Black and Wiliam, 1998) has shown that assessment for learning is one of the most powerful ways of improving learning and raising standards. Current research is adding further evidence in support of this claim and the empirical evidence is underpinned by theory from the psychology of learning and studies of learning motivation.

While assessment of learning has well established procedures, assessment for learning requires some theoretical ideas to be put into practice if the potential benefits are to be gained. In doing this, it is important to follow certain guiding principles which reflect the essential features of assessment for learning.

The *Principles of assessment for learning* presented here have benefited from comments from a wide variety of individuals and associations, whose help is gratefully acknowledged. This leaflet/poster is a further step towards changing assessment practice to safeguard the necessary quality of learning experiences needed for achieving the goals of education.



The Assessment Reform Group (ARG) has played a key role in bringing the research evidence about assessment for learning to the attention of the education community through the commissioned Black and Wiliam work, *Inside the Black Box*, and the follow-up, *Assessment for Learning: beyond the black box*. In continuing its endeavour to improve practice in assessment it has developed the *Principles of assessment for learning*.

The ARG members who produced these principles are

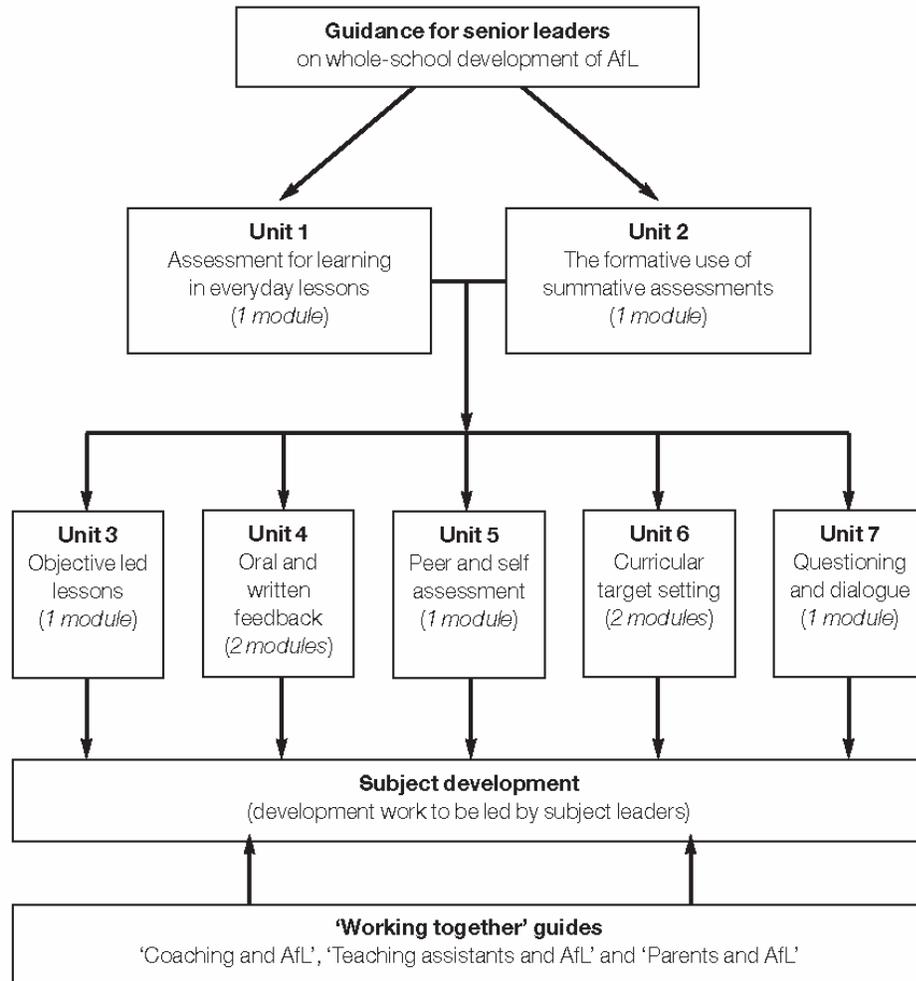
Professor Patricia Broadfoot	University of Bristol
Professor Richard Daugherty	University of Wales, Aberystwyth
Professor John Gardner	Queen's University, Belfast
Professor Wynne Harlen	University of Bristol
Dr Mary James	University of Cambridge
Dr Gordon Stobart	Institute of Education, University of London

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For further information about the work of the Assessment Reform Group, and to download copies of this leaflet/poster, please see <http://www.assessment-reform-group.org.uk>

Appendix Three

The structure of the AfL training materials



Prompts to support school self-review of AfL

	Reflects current situation	Some further development required	Significant attention needed
Learning objectives			
The learning objectives in lessons can be tracked back to teaching objectives in medium-term plans.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The learning objectives for each lesson are shared with pupils and are clearly separated from the explanation of the activity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If asked during a lesson, pupils can explain what they are trying to learn and why.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Questioning and explaining is focused on the learning objectives of the lesson.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning outcomes/success criteria			
Learning outcomes/success criteria for each lesson are shared with pupils.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning outcomes/success criteria are differentiated to ensure all pupils can make progress towards the learning objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If asked during a lesson, pupils can explain what they need to do to demonstrate success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning outcomes/success criteria form the basis of feedback to pupils.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oral and written feedback			
Oral and written feedback is focused on the shared learning objectives of the lesson.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are planned opportunities in lessons for regular and frequent oral feedback.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written feedback provides helpful comments on how pupils can improve their work and make progress towards personal targets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pupils are given the opportunity when receiving written feedback to reflect on it and respond to it during the lesson.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Reflects current situation	Some further development required	Significant attention needed
Peer and self assessment			
During lessons pupils are encouraged to reflect on what they have learned and what they need to do to improve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pupils are trained how to assess each other's work and provide fair and helpful feedback.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are planned opportunities for pupils to assess their own work and each other's work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During lessons pupils are encouraged to discuss what strategies they might use to learn what they need to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pupils take increasing responsibility for assessing their own progress and can relate this to their personal targets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curricular target setting			
Teachers have a good understanding of progression in their subject.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject leaders review summative assessment information to help identify curricular targets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Progression towards curricular targets is at the forefront of teachers' lesson planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers use an appropriate range of data to baseline pupil performance, set targets and judge progress.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pupils are aware of their medium and longer-term personal targets and help set, and assess their progress towards them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Questioning and dialogue			
Group and whole class dialogue is effective in enabling pupils to become more independent learners.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers trigger and sustain classroom dialogue using strategies which involve advance planning and interaction during lessons.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The climate for learning gives pupils the confidence to verbalise partially formed thinking and constructively challenge each other's ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>