National College for Teaching & Leadership

Beyond Levels: alternative assessment approaches developed by teaching schools

Research Report

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Introduction

Teaching schools, as key players in a school led system, were invited by the National College for Teaching and Leadership (NCTL) in October 2013 to bid for small-scale research funding to explore alternative approaches to assessment beyond levels within their alliance schools. This report summarises the research carried out by 34 teaching school alliances across the country.

The conclusions are based on the triangulated findings and careful analysis of:

- data collected at events where contributing schools shared their research approaches and findings
- examples of assessment tools created and trialled in alliance schools
- written research reports completed by schools

From the information gathered, three priorities emerged:

- development of assessment tools to support individual progress
- development of assessment tools to capture and record progress
- use of technology to track attainment and progress

The full report gives details of methodology and examples from schools, along with appendices summarising the audit of existing assessment practices which some schools carried out and a list of all schools with web links. An additional resource summarising the outcomes and impact identified by schools participating in the research project is available separately.

Assessment tools to support individual progress through feedback

The consensus from participating schools about the importance of formative classroom assessment has been further supported in these research projects by a renewal of detailed focus on curriculum planning in preparation for introduction of the new national curriculum. The detailed specificity within core subjects provided by the new curriculum, offers the opportunity for assessment to be very closely aligned.

'Assessment for learning' (AfL) has also been understood within many of these projects, as 'assessment for teaching'. Through collaborative study, teachers have engaged in critical reflection and discussion about the most appropriate assessment

tools for different subject areas, age groups, and individuals. The full report provides examples of the range of strategies that alliances developed to provide formative feedback directly tailored to the new curriculum. These strategies include a range of methodologies including development of a mastery approach, use of detailed progression objectives and enhanced pupil involvement in self-review.

Whatever strategy has been considered, each teaching school in this project has spoken of the value of participating in professional learning communities; to take back control of the process of assessment. While external accountability was recognised as a necessity, teachers spoke of their revitalised approach to the pedagogy of assessment. Recognition was given to the benefit of collaborative approaches to formative assessment with consequent pupil ownership of their learning and progress.

Assessment tools to capture progress

Some schools concentrated on developing resources as a means of capturing achievement to record progressive development in understanding and skills. Such work either arose from an audit of existing assessment capture practices or developed from new approaches to formative assessment as highlighted in the previous section. In the absence of externally provided assessment 'levels', teaching schools have demonstrated that they have welcomed the opportunity to engage in researching alternatives that would more readily meet their local needs.

There was a variety of approaches to measurement of progress across cohorts. Development of systems that will ultimately offer coherence and consistency across all schools was raised as a challenge. For example, some schools have adopted numerical values, others alphabetical points systems. However, as revealed through the audits of existing practice (appendix A), this project has highlighted inconsistences within and across schools of existing assessment practice. The removal of levels has prompted a collaborative response amongst schools. Tools that were developed by alliances include SOLO taxonomy grids, progressive mastery statements and marking grids. The projects facilitated opportunities for teachers to become involved and have ownership over planning for classroom assessment systems that are closely aligned to specific curriculum subjects and may allow pupils, parents and governors to receive feedback that is more meaningful.

Use of technology to track progress

A range of different technological options were explored across the alliance schools taking part. Some were used to capture formative assessments, often to share with parents, while others addressed the challenge of tracking.

Recommendations

The recommendations below are for both the department for education and schools to consider as alternatives to assessment levels are implemented within schools.

- A culture shift regarding the nature, range and purposes of assessment needs to take place, in recognition of the new opportunities provided both by the new curriculum and the removal of levels.
- Conferences and seminars should be offered nationally, to enable all schools to confidently develop their assessment expertise and learn from each other. Detailed understanding of subject progression is needed to develop assessment systems for foundation subjects.
- New tracking software should be developed to provide school leaders with ‘at a glance’ data that will enable monitoring of progress across year groups and over time. Some schools are already developing this, but it would be helpful for the system to have a range of options to choose from. The system would benefit from access to peer reviewed commercial tracking systems that focus directly on the detail of the new curriculum.
- Further opportunities for grant funding would greatly assist communities of schools to be ‘research active’ in the field of assessment.

Section one: Introduction

In May 2013, the Secretary of State announced: ‘as part of our reforms to the national curriculum, the current system of ‘levels’ used to report children’s attainment and progress will be removed. It will not be replaced.’ This policy decision followed recommendations from the national curriculum Expert Panel (DfE: 2011) chaired by Tim Oates. ‘Reforming assessment and accountability for primary schools’ stated ‘schools should have the freedom to decide how to teach their curriculum and how to track the progress that pupils make’ (DfE, 2014: p4). These announcements made it clear that central government was no longer going to dictate how schools should record and report progress between statutory tests.

Teaching schools, as key players in a school led system, were invited by the National College for Teaching and Leadership (NCTL) in October 2013 to bid for small-scale research funding to explore alternative approaches to assessment beyond levels within their alliance schools. This report summarises the research from 34 teaching school alliances across the country. Following a contextualisation of the projects and an overview of the methodology adopted to collate this number of projects, this report then summarises the approaches schools developed or engaged with, under the headings of:

- Assessment tools to support individual progress through feedback
- Assessment tools to capture progress
- Use of technology to track progress

The final section reports the outcomes identified by the schools and the impact they have identified to date, before concluding with recommendations. More detailed outcomes and impact evidence reported by the participating schools is available in addition to this report.

The alliances featured within this study have taken the opportunity presented by the removal of national curriculum levels to review and trial a range of locally-developed tools and strategies. In many cases the school alliances are at an early stage in their development of assessment resources, but this report aims to capture the learning from each group in order that others may build on this within their own community of schools.

Section two: Context

The advent of a new national curriculum (DfE, 2014a) alongside a revised approach to recording and assessing progress (DfE, 2014b) offers a unique challenge and opportunity for the school led system. National curriculum levels had previously provided a 'best fit' judgement. However, the new curriculum offers far more specific age-related content with an increased expectation of attainment. Schools taking part in this short study set out to see whether the existing levels were still helpful and relevant or whether an alternative assessment framework could be developed that would align more closely with the new curriculum.

Table 1 Summary of all schools taking part in the research project

School	Primary (incl early years)	Secondary	Special school	Total
Lead school	17	15	2	34
Cluster schools	136	58	10	204
Total	153	73	12	238

The 34 participating teaching schools varied in the way they worked across their alliances and who was involved. These can be summarised as:

- cross-phase (primary-secondary)
- cross school types (mainstream-secondary)
- both urban and rural settings as well as across settings
- researchers working with headteachers who led their own school teams
- collaborative communities of practice (teachers with external research support)
- variety of stakeholder collaborations – some including a variety of combinations of parents, pupils, and teachers

Section three: Methodology

The work of the teaching school alliances (TSAs) was jointly co-ordinated by the South Farnham Teaching School Alliance and the Wroxham Transformative Learning Alliance. Although the methodology for co-ordination was different for the two groups, the approach was underpinned by a commitment to support each group of schools to follow through the particular research approaches they had identified, offering guidance and research tools and processes.

To manage the geographical spread of teaching schools, an East-West divide was made. The western group of TSAs held midpoint meetings in the north, south and middle of England. These gatherings offered the opportunity for schools to present their research thus far and to learn from each other about approaches, challenges and shared areas of interest. A writing frame was offered to support the articulation and summarising of this work at both the mid-point and conclusion of the project, to ensure this report could draw on the schools' own words. The eastern group held two conference days in late summer at which schools presented their work, and from which information was amassed for this report. This group used social media to keep in touch with developments as they occurred across alliances.

Alliances set to work in a wide variety of ways. The majority gathered interested parties together from their alliance schools and began to plan projects that would allow for new thinking to emerge. Many groups revisited their own beliefs about the core purposes of assessment and used this as a guiding strategy as to which area to develop. One alliance began by engaging in a study of the history of assessment related to the previous national curriculum. This was done as a means of trying to understand how and why assessment needed to change away from levels as there was a degree of hostility to this policy change amongst schools within this alliance. While some alliances worked directly with colleagues from higher education institutions (HEIs) or local authorities, others coordinated a variety of different projects within their schools.

TSAs collected data in a variety of ways. Some schools developed survey instruments and conducted semi-structured interviews prior to beginning work. Many schools engaged in a detailed audit of existing practice (Appendix A). Colleagues set about sharing classroom practice and approaches to tracking, monitoring and moderation. Methods of enquiry included film, classroom visits, close scrutiny of the new curriculum programmes of study, subject specific working parties, piloting of new approaches and review. Several alliances based their work around notions of 'mastery'. In some groups of schools new software and innovative use of technology to enhance assessment was developed.

Increased collaboration and shared professional understanding through dialogue was often cited as one of the key benefits from undertaking these enquiries.

The findings drawn from end of project reports and presentations were then thematically grouped using the Framework for Qualitative Data Analysis (Miles & Huberman,1994). This enabled a layer of analysis of the data that revealed recurring themes and approaches.

Social media

Increasingly teachers and school leaders are turning to social media such as twitter or blogs to share and discover resources to support innovation. At the outset of the project a new twitter account @beyondlevels was set up to provide a forum for online debate about assessment. The account is followed by organisations such as the Department for Education (DfE), Ofsted and the Teaching Schools Council. Leading educational bloggers are referenced from the twitter account enabling followers to access think pieces by a wide range of colleagues nationally and internationally. A key benefit of this emerging space for collaboration and debate is the opportunity to engage with others who are driven by the imperative of sharing practice as a collective endeavour for educational improvement.

See links to the following schools in appendix B: The Wroxham Transformative Learning alliance, Tudor Grange Academy Solihull

Section four: Assessment tools to support individual progress

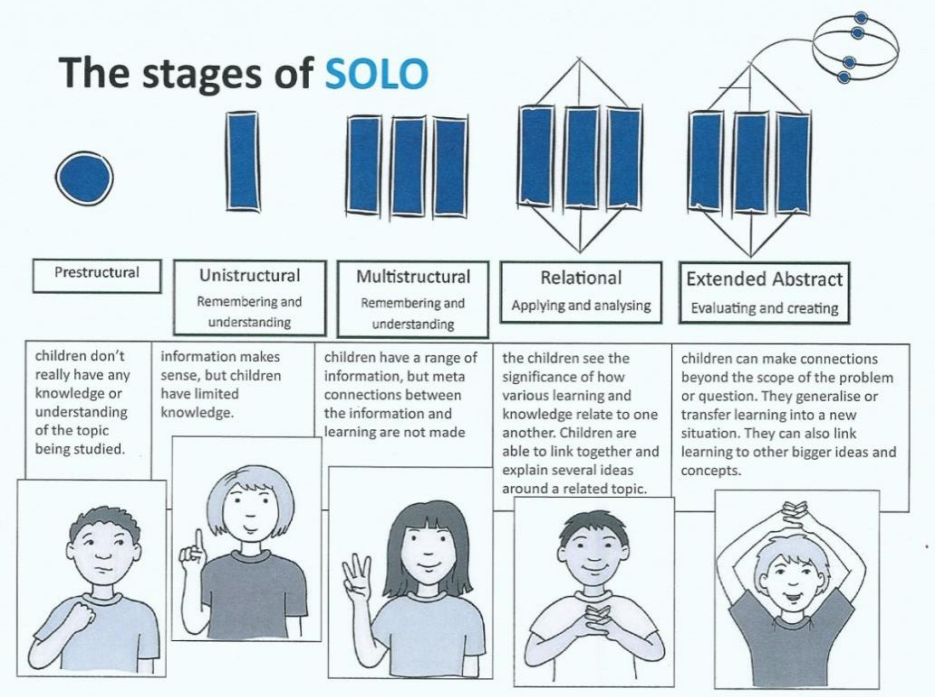
> ‘An assessment functions formatively to the extent that evidence about student achievement is elicited, interpreted and used by teachers, learners, or their peers to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions, they would have made in the absence of that evidence.’
>
> Wiliam, D. 2011, p. 43

The following approaches were developed by schools as a means of using formative assessment to enhance the progress achieved by individual children and students. We have illustrated approaches with examples to offer clarity; many schools however are currently still at the development stage. In addition, we have included links to each teaching school where further information and detail can be accessed.

Visible learning approaches

When teaching and learning are visible – that is, when it is clear what teachers are teaching and what students are learning, student achievement increases. As featured in ‘Visible Learning for Teachers’ (Hattie, J. 2012) ways to make learning and teaching more explicit were explored by several schools. These included self and peer assessment initiatives, which sought to offer students increasing agency over their learning. In particular the SOLO Taxonomy as supported by the materials created by Pam Hook (2011, 2012, 2013) and widely used in New Zealand, was applied to a variety of primary, secondary and special school settings.

Figure 1: Levels of understanding in SOLO Taxonomy



(As adapted by Severn TSA from Hook, P & Mills J. (2011) SOLO Taxonomy: A Guide for Schools Book 1 Essential Resources Educational Publishers, NZ)

The materials and approach were found to be valuable both to assist teachers in their planning and pupils in their active engagement in learning activities, leading to enhanced peer and self-assessment skills being developed by the pupils and more differentiated approaches for personalising learning.

See links to the following schools in appendix B: Alban TSA, Ashford Teaching Alliance, Teaching School Alliance West Kent and West Sussex (TAWKE), Alliance for Learning, Lightwoods TSA, Parbold Douglas CE Academy Teaching Alliance, The Pioneer TSA, Severn TSA, Tudor Grange Academy Solihull, Bishop Rawstorne Church of England (CofE) Academy TSA, Chimney House TSA, South Farnham TSA, Ebor TSA

Revised Bloom's taxonomy

Unlike the former Bloom's taxonomy (1956) the Revised Taxonomy (Krathwohl, 2002), is a two-dimensional framework: knowledge and cognitive processes. In combination, the dimensions form a very useful table. Using the table to classify objectives, activities, and assessments provides a clear, concise, visual representation of a particular course or unit.

Figure 2: Revised Taxonomy table

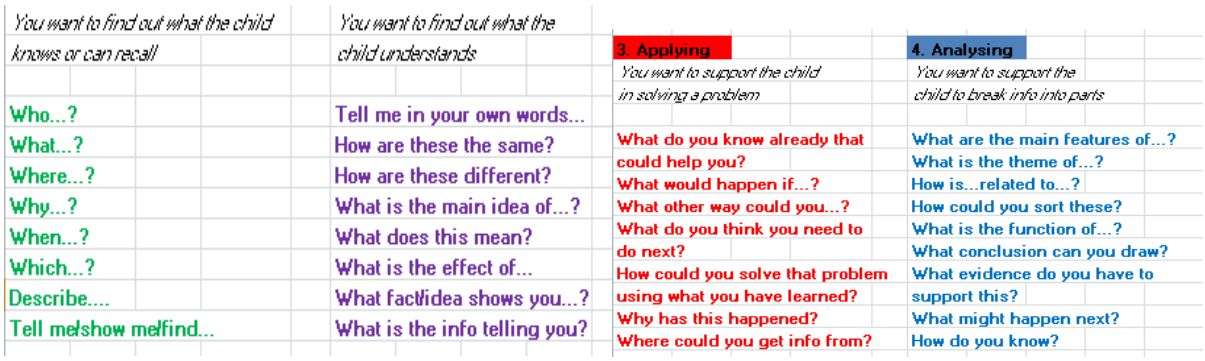
The knowledge dimension	1 Remember	2 Understand	3 Apply	4 Analyse	5 Evaluate	6 Create
A. Factual Knowledge	list	summarise	classify	order	rank	combine
B. Conceptual Knowledge	describe	interpret	experi-ment	explain	access	plan
C. Procedural knowledge	tabulate	predict	calculate	differ-entiate	conclude	compose
D. Metacognitive Knowledge	appropriate use	execute	construct	achieve	action	actualise

Adapted from: Krathwohl, D. R. (2002). A revision of bloom's taxonomy: An overview. *Theory into Practice, 41*(4), 212-218

Once completed, the entries in the taxonomy table can be used to examine relative emphasis, curriculum alignment, and missed educational opportunities. Based on this examination, teachers can decide where and how to improve the planning of curriculum and the delivery of instruction.

Various interpretations of this revised taxonomy have led schools to develop tools such as 'learning ladders', 'stepping stones', 'command words' and strategic approaches to questioning. For example Balcarras TSA has used 'Questioning cards':

Figure 3: Example of part of the Questioning Cards developed by Balcarras TSP



See links to the following schools in appendix B: Portsmouth TSA, Primary Excellence TSA, Alliance for Learning, Balcarras TSP, Bishop Challoner TSA, Chimney House TSA, Lightwoods TSA, The Pioneer TSA, Primary Excellence TSA, Salop TSA, Severn TSA, South Farnham TSA, Ebor TSA

Mastery statements

Many schools were keen to involve children and young people in formative assessment using mastery statements. These often took the form of 'I can' grids, that related directly to the new curriculum. This approach also included development of tools such as skill ladders, milestones (or tinier inch-pebbles) and assessment

grids related to specific units of work (see link to Bishop Challoner TSA who developed specific mastery statements in History).

Figure 4: Learning outcome grids, influenced by the Revised Bloom's Taxonomy

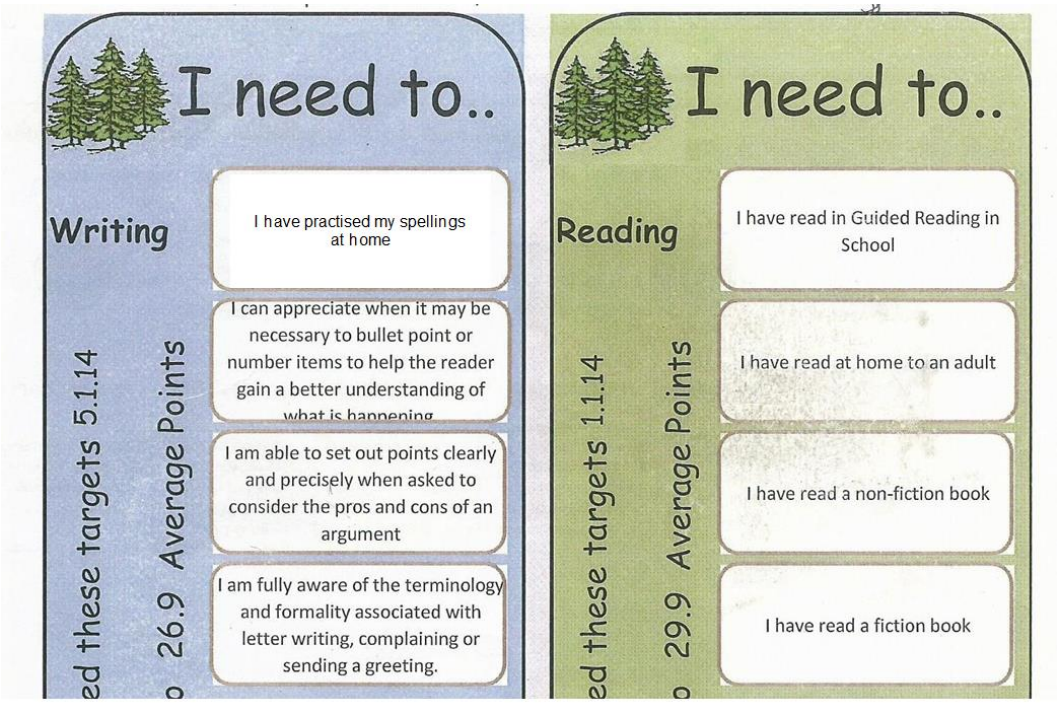
Domain	Pre Y7 Mastery	Y7 Mastery	Y8 Mastery	Y9 Mastery	GCSE Mastery
Causation	Students can identify and describe single or multiple causes and / or consequences of events. Students suggest that all causes are of equal importance, usually attributed to people and not underlying forces. Students will not usually recognise a relationship between them.	Students can explain short and long term causes of event, recognising that these events have short and long term consequences. Students will begin to explore the links between these causes/ consequences.	Students have a more in depth understanding of the consequences of events and long and short term impact of both cause and consequence. Students will be able to explain the links and suggests reason why some factors are more influential than others.	Students can fully explain long and short term causes and consequences within its wider context, and can explain the significance of some factors over others. Students can do this in its wider context thereby strengthening their judgement regarding significance.	Students can fully prioritise causes and consequences of events in their wider historical context.

See links to the following schools in appendix B: Alban TSA, Ashford Teaching Alliance, Ebor TSA, Harrogate and Rural TSA, Outwood Institute of Education, The Stourport TSA, Alliance for Learning, Bishop Challoner TSA, Silk Alliance, South Farnham TSA, Wigmore School TSA

Curriculum progression objectives

Progression objectives for mathematics and English have been developed by many of the teaching school alliances. Taking the detail within the national curriculum programmes of study it is possible to identify key objectives that will be taught and can be assessed throughout the year. Many schools drew on the examples of progression objectives produced by the national association of headteachers (NAHT) to develop detailed mini-statements of achievement, providing an opportunity for children to self-assess alongside the teacher's judgement of progress. This also provides a means of giving feedback to parents about aspects of the curriculum that have been understood by the child, with information about other areas that require further practice. Ebor TSA developed an assessing pupil progress (APP)-style grid to review progress in mathematics providing an 'at a glance' assessment of what each child is achieving throughout the year. Chimney House TSA developed 'I need to..' statements which were shared between home and school successfully.

Figure 5: 'I need to…' statements developed by Chimney House TSA



Detailed understanding of curriculum progression within the foundation subjects is an area that some schools spent time developing. The skill of understanding progression is closely linked to pedagogical subject knowledge. In some alliances, specialist leaders of education (SLEs) led a working group within their specialist subject area. The work of subject associations was found useful by many and there was reference to the Expert Subject Advisory Group website[1] as a useful resource for access to advice about implementation of the new curriculum.

Recognition was given that recording progress within specific foundation subjects often required an approach that may differ from one subject domain to another. The opportunity to work collaboratively across phases to build understanding of children's detailed progress within subjects was an area of development that colleagues found very useful and enlightening.

[1] www.expertsubjectgroups.co.uk

Figure 6: Example of learning objective statements

Year 2: Vocabulary, Grammar and Punctuation

Objective:	Emerging:	Expected:	Exceeding:
Pupils should be taught to: *develop their understanding of the concepts set out in English Appendix 2 by: *learning how to use both familiar and new punctuation correctly (see English Appendix 2), including full stops, capital letters, exclamation marks, question marks, commas for lists and apostrophes for contracted forms and the possessive (singular):	Begin to develop their understanding of the concepts set out in English Appendix 2 by starting to learn how to use familiar punctuation correctly.	Develop their understanding of the concepts set out in English Appendix 2 by starting to learn how to use both familiar and some new punctuation correctly.	To expand and build on their understanding of the concepts set out in English Appendix 2 by learning how to use both familiar and new punctuation correctly and with confidence in their writing.

How progression might be supported in specific special school contexts also featured with more details P-statements emerging.

See links to the following schools in appendix B: Alban TSA, Ashford Teaching Alliance, Ebor TSA, Harrogate and Rural TSA, Outwood Institute of Education, The Stourport TSA, Together to Succeed (T2S), TAWKE, Balcarras TSP, Chimney House TSA, George Abbot TSA, Lightwoods TSA, Silk Alliance, South Farnham TSA, Wigmore School TSA, Leading Learning Forward, Harrogate and Rural TSA

Feedback methods

Feedback pro-forma in various formats were produced by almost all alliances to enable children and students to understand how to improve their work through building on formative feedback.

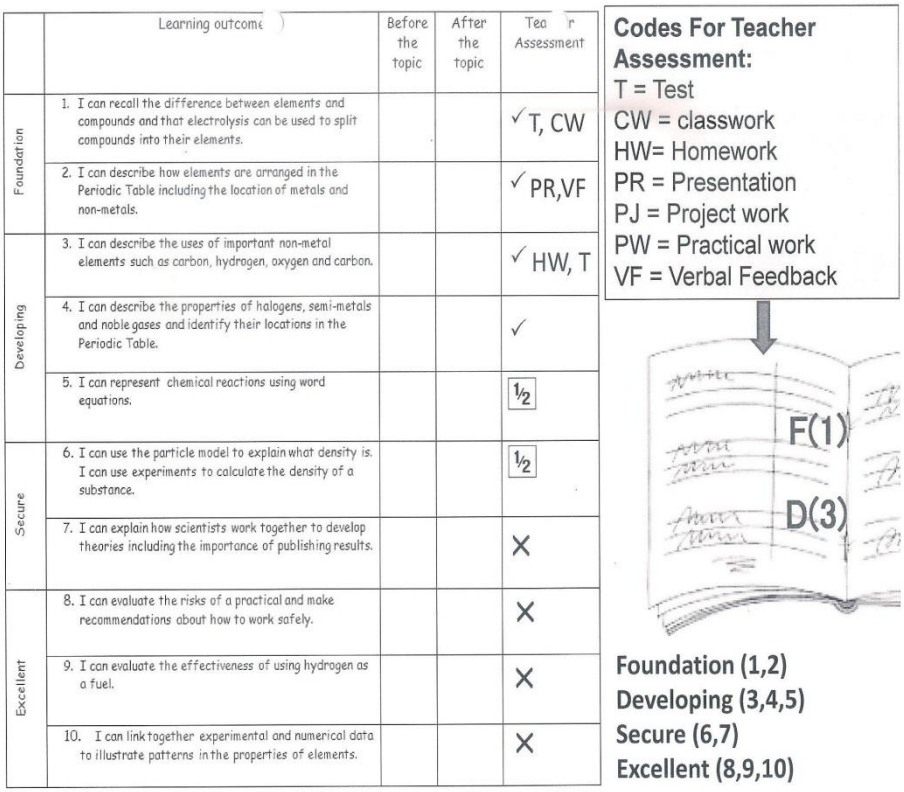
The Cambridge and Suffolk Schools Alliance (CASSA) drew upon the Teaching and Learning Research Programme[2] (2006) principles of 'making learning explicit' and 'promoting learning autonomy'. Using these principles as a reference point they set about devising protocols for peer review and re-drafting during a piece of work rather than waiting until the work was complete for a summative response from the teacher. Marking ladders were developed as a scaffold for peer feedback and time was given during most lessons for dialogue between pupils to enable this process to have impact. Pupil dialogue combined with teacher feedback was described by the teachers as very powerful. Examples of pupils' work that had been re-drafted following feedback illustrated the increase in quality that was achieved. This approach was successfully implemented across a range of schools with classes from Year 2 through to Year 9; encapsulated in the mnemonic TOWER: **T**alk - **O**rganise visually – **W**rite - **E**dit (and critique) - **R**eflect

Alban TSA developed feedback grids using 'I can' statements and teacher summative responses. These grids were stuck into pupils' books and were used to

[2] www.tlrp.org

assess progress at the beginning and end of each unit of work. Feedback for each objective allowed the pupil to see whether they were foundation, developing, secure or excellent. The benefit of this process for the schools was that assessment could take place in a range of different modes, thereby ensuring that all learning activities contributed to the assessment process throughout the year. The alliance also used a system of 'medal and mission' for self assessment. Pupils are asked to reflect what they did well (medal) and what they could improve (mission), teachers and parents support this process and teachers commented that this had proved highly motivating for pupils.

Figure 7: Feedback grids using 'I can' statements developed by Alban TSA



	Learning outcome	Before the topic	After the topic	Teacher Assessment
Foundation	1. I can recall the difference between elements and compounds and that electrolysis can be used to split compounds into their elements.			✓ T, CW
	2. I can describe how elements are arranged in the Periodic Table including the location of metals and non-metals.			✓ PR,VF
Developing	3. I can describe the uses of important non-metal elements such as carbon, hydrogen, oxygen and carbon.			✓ HW, T
	4. I can describe the properties of halogens, semi-metals and noble gases and identify their locations in the Periodic Table.			✓
	5. I can represent chemical reactions using word equations.			½
Secure	6. I can use the particle model to explain what density is. I can use experiments to calculate the density of a substance.			½
	7. I can explain how scientists work together to develop theories including the importance of publishing results.			×
Excellent	8. I can evaluate the risks of a practical and make recommendations about how to work safely.			×
	9. I can evaluate the effectiveness of using hydrogen as a fuel.			×
	10. I can link together experimental and numerical data to illustrate patterns in the properties of elements.			×

Some schools use learning review meetings between children, teachers and parents. These twice yearly meetings consist of a dialogue about progress within specific areas of the curriculum, evidenced with examples of written work. Next steps for improvement and challenge are agreed and recorded at each meeting.

Others trialled a range of feedback models influenced by evidence from Hattie's visible learning insights e.g. Alliance for Learning and Primary Excellence TSA, developed 'Feedback booklets':

> "Pupils were given an opportunity to write in a feedback booklet which was an open dialogue between teacher and pupil about what the child understands of a lesson/sequence of lessons. The books provided clear evidence of when a

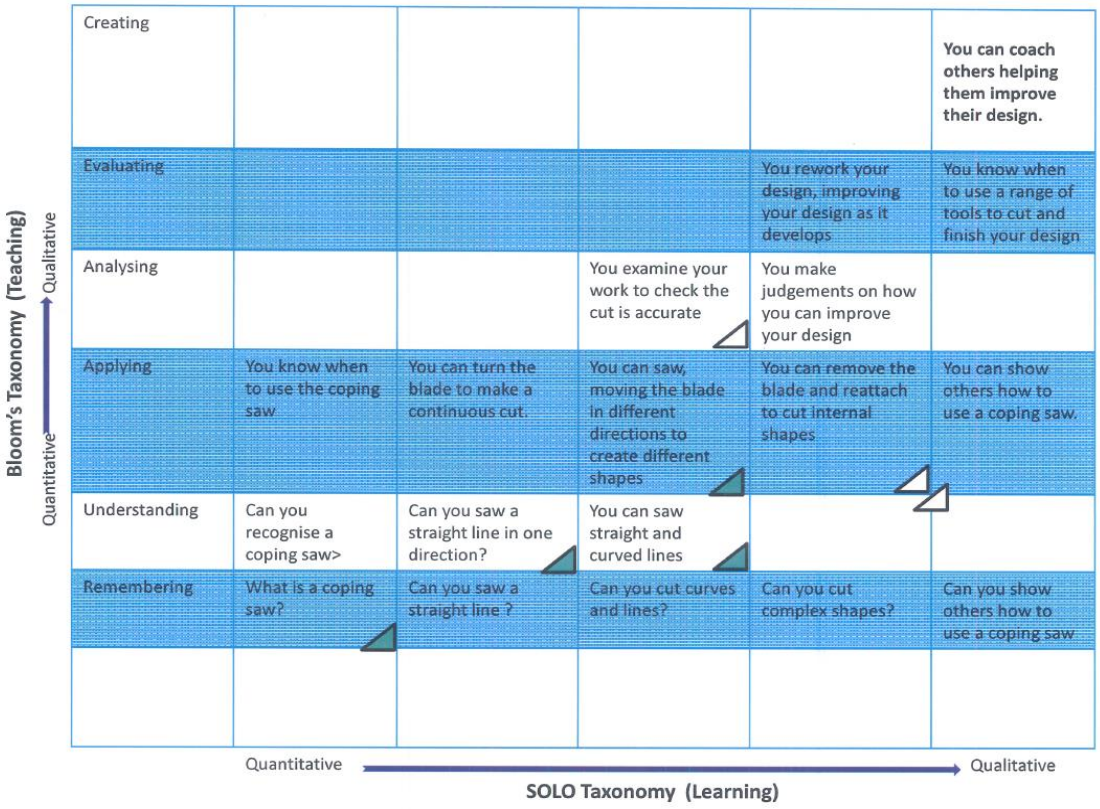
child misunderstood a concept, therefore teachers could continually support the learning by adapting planning and lessons and implementing interventions."

Primary Excellence TSA

Personalised feedback grids featured in a number of projects; schools had integrated ideas from both SOLO and Revised Bloom's Taxonomies.

One such example from Bishop Rawstorne CofE Academy TSA shows a grid developed and trialled in design technology:

Figure 8: Personalised feedback grid incorporating both SOLO and Bloom's Taxonomies



See links to the following schools in appendix B: Alban TSA, Ashford Teaching Alliance, Ebor TSA, Harrogate and Rural TSA, Outwood Institute of Education, The Stourport TSA, T2S, TAWKE, The Wroxham Transformative Learning Alliance, Balcarras, Bishop Challoner TSA, George Abbott TSA, Primary Excellence TSA, Silk Alliance, Tudor Grange Academy Solihull, Wigmore School TSA

Choice and challenge

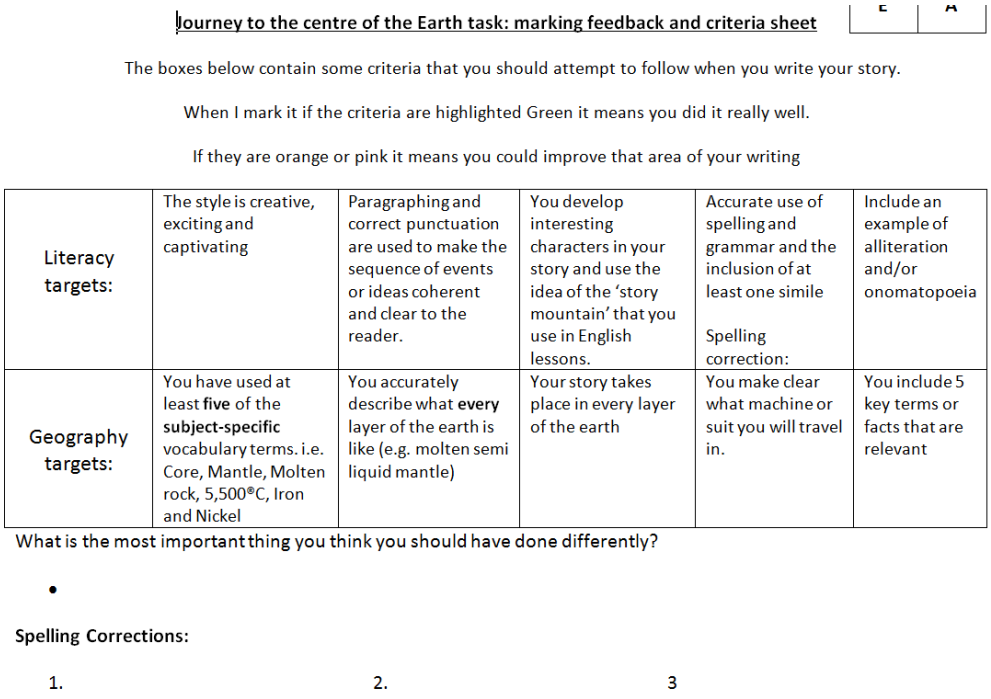
Building on the 'learning without limits' work of Hart et al (2004), Swann et al (2012) some schools have begun to actively engage pupils in self-assessment when selecting practice tasks. Pupils re-draft and review the quality of their work and determine their next steps in learning through dialogue with peers, teachers and

parents. The Wroxham TSA has used this alternative approach to assessment driven by levels for many years. Their research involved an ethnographic study of six primary schools nationally that had begun to trial this method as a means of using assessment as a driver for change. Ultimately, this inclusive pedagogy seeks to build a culture of intrinsic ambition and challenge amongst all children.

Resisting labelling and encouraging pupils to challenge themselves in a climate of trust, means that teachers also need to raise expectations of what may be achieved. Dylan Wiliam argues that 'it's generally easier to get people to act their way into a new way of thinking than it is to get people to think their way into a new way of acting'[3] . There was evidence of both approaches to new professional learning within the Wroxham study.

Balcarras TSP worked with feedback grids which showed targets as criteria also for 'marking' but these offer choice to the pupils:

Figure 9: Feedback grids showing targets which can also be used as a marking criteria (Balcarras TSP)



Journey to the centre of the Earth task: marking feedback and criteria sheet

The boxes below contain some criteria that you should attempt to follow when you write your story.

When I mark it if the criteria are highlighted Green it means you did it really well.

If they are orange or pink it means you could improve that area of your writing

Literacy targets:	The style is creative, exciting and captivating	Paragraphing and correct punctuation are used to make the sequence of events or ideas coherent and clear to the reader.	You develop interesting characters in your story and use the idea of the 'story mountain' that you use in English lessons.	Accurate use of spelling and grammar and the inclusion of at least one simile Spelling correction:	Include an example of alliteration and/or onomatopoeia
Geography targets:	You have used at least **five** of the **subject-specific** vocabulary terms. i.e. Core, Mantle, Molten rock, 5,500®C, Iron and Nickel	You accurately describe what **every** layer of the earth is like (e.g. molten semi liquid mantle)	Your story takes place in every layer of the earth	You make clear what machine or suit you will travel in.	You include 5 key terms or facts that are relevant

What is the most important thing you think you should have done differently?

•

Spelling Corrections:

1. 2. 3

The Silk Alliance used growth mindset (including Carol Dweck and Guy Claxton) taxonomies to engage pupils in visible learning / building learning power approaches (early years foundation stage – year 6) to ensure less rigidity of thinking to 'fixed' ability school cultures. Chimney House TSA similarly engaged with Claxton's notion of how the feedback dialogue can support and challenge pupils.

[3] http://www.dylanwiliam.org/Dylan_Wiliams_website/Papers_files/Cambridge AfL Keynote.doc

See links to the following schools in appendix B: The Wroxham Transformative Learning Alliance, Silk Alliance, Chimney House TSA, Tudor Grange Academy Solihull

Summary - Assessment tools to support individual progress

The consensus from participating schools about the role of assessing for learning has been further supported in these research projects by a renewal of focus on planning, especially as teachers have taken time with this project to consider the new national curriculum outlines.

Whatever strategy has been considered, each teaching school in this project has spoken of the value of participating in professional learning communities; to take back control of the process of assessment. While external accountability was recognised as a necessity, teachers spoke of their revitalised approach to the pedagogic principles; planning, differentiation, pupil ownership of their learning journey and the collaborative relational nature of educative process.

'Assessment for learning' has now also been understood as 'assessment for teaching', with more teachers engaging in critical reflection and discussion about the most appropriate assessment tools for different subject areas, age groups, and individuals.

Section five: Assessment tools to capture progress

> ‘Many staff recognise the positive impact of formative assessment processes on learning outcomes and attainment through the use of effective feedback. However they are also acutely aware of the importance of teachers maintaining meaningful records in their mark book so that they can demonstrate that pupils are making progress and contribute to whole school tracking systems.’
>
> Bishop Rawstorne CofE Academy TSA

The following approaches were developed by schools as a means of capturing achievement so as to record progressive development in understanding and skills. Many of the tools researched and highlighted below build on the formative assessment approaches developed to support pupil progress. This section will report on the findings of trialled approaches which schools offered during this project, given that some of the tools to capture progress are still being developed or refined.

SOLO Taxonomy grids

For several schools, exploring the use of SOLO grids to assist with capturing progress in a meaningful way was challenging:

> ‘In mathematics, the teacher rolled out the SOLO assessment approach with all year 7 students. Following twilight training and planning session, teachers worked collaboratively to deliver 6 lessons in sequences, straight line graphs and problem solving. Pupils sat an assessment test at the end based on the content of the lessons. Question numbers were linked to criteria on the feedback sheet. Pupils peer assessed each other’s work and gave some next steps tasks to pupils.’
>
> Bishop Rawstorne CofE Academy TSA

The conclusions from this report suggested that the SOLO taxonomy had a significant impact on engaging pupil learning and assisting in enhancing self and peer assessments. Indeed the teachers referred to the ‘deepening’ of understanding noted. However capturing data for a mark book proved more problematic because ‘the one size fits all’ approach was no longer operable; individual steps were effectively captured but recording whole group progress was less feasible.

In The Pioneer TSA, both SOLO and Bloom’s Taxonomies were used indirectly to inform the approach used. In year 5 science the objective was to “know the factors affecting the germination of seeds”. The four statements became:

- **Emerging**: can identify one factor affecting germination

- **Developing**: can list all factors affecting germination
- **Secure**: can explain all the factors affecting germination
- **Exceeding**: can predict the effect of change in factors on germination. Can relate their knowledge to seeds in different climatic regions.

This was tracked using a four column grid with a pupil list down the side. Teachers simply ticked the column assessed at next to each pupil.

See links to the following schools in appendix B: Bishop Challoner TSA, Bishop Rawstorne CofE Academy TSA, Lightwoods TSA, Parbold Douglas CE Academy Teaching Alliance, The Pioneer Alliance, Harrogate and Rural Alliance

Revised Bloom's Taxonomy

This Taxonomy, while being very successfully employed as a tool to support formative feedback, was also used as a tool to support the design of subsequent tools to 'capture' progress as referred to above.

Bishop Challoner TSA reported that:

> 'Schools opting for a revised Bloom's taxonomy approach have opted for progress ladders/steps to success approaches. These offer subject specific adaptations of Bloom levels that seek to capture layers of thinking - they are generic and can be applied to all assessments other than closed knowledge assessing tests.'

Salop TSA reported the influence of the revised Bloom's Taxonomy in creating a tool for use in the classroom and to share with parents:

> The science department pioneered the use of command word posters in the classroom, now used by humanities, design technology, ICT, PE and music. These command words are taken from the list of revised Bloom's Taxonomy verbs. These verbs typify the skills expected of pupils as they make progress from KS2 to KS4. The maths department have been developing a similar approach with common verbs taken from current GCSE maths papers. The English department have been developing 'stepping stones' for reading, writing and speaking that follow a similar pattern of demonstrated progress to that of maths and science. The command words are now used in lesson objectives / outcomes, AfL feedback as well as for reporting home.

Other schools' planning was already embedded in Bloom's cognitive approach. Their research was timely – using the revised Bloom's Taxonomy to apply it to the new national curriculum. South Farnham TSA reported:

> ‘Teachers’ use of levelled questioning was observed and recorded to identify how Bloom’s was used in formative assessment. Following this, teachers designed their own summative test based on Bloom’s levels (1. Knowing and understanding; 2. Applying and analysing; 3. Evaluating and Creating). Children were also asked to design their own test based on the same levels as a preliminary exercise in beginning to make Bloom’s Taxonomy more accessible to them. Assessment would then fit into the tracking system already in place.’

See links to the following schools in appendix B: Bishop Challoner TSA, South Farnham TSA, Salop TSA, Leading Learning Forward

Use of (progressive) mastery statements

The term ‘mastery’ relates to an expectation that learning has been consolidated to such a degree that it is known, understood and embedded thereby leading to fluency. Mastery statements relate to individual aspects identified within programmes of study that have been fully achieved. Within this structure the young person either can or cannot, perform the required task. There is no room for ‘almost’ or ‘sometimes’ within this system. The Oval Learning Cluster Number Masters programme[4] developed by the Vauxhall Primary School (part of the Lambeth TSA), aims to assess ‘automaticity when retrieving basic facts’. The software enables teachers to record a direct relationship between what is taught and what is assessed. For example, the Year 2 mathematics programme of study states: ‘pupils should be taught to know the number of minutes in an hour and the number of hours in a day’. This would then be assessed as a yes / no following a brief summative test. Some alliances have begun to develop ‘mini-mastery’ tests for this purpose.

Silk Alliance developed and tested a table top prompt with mastery statements focusing on age related competencies.

Some schools reported very specific use of mastery statements:

> ‘Schools using ‘mastery’ statements have not used them as tools to capture progress but rather as statements to ensure progress is on a trajectory consistent with three/four levels of progress. Progress is captured at “point of assessment” through what went well / even better if marking or the award of a percentage.’
>
> Bishop Challoner TSA

[4] http://seasonedtraveller.net/profile.html

See links to the following schools in appendix B: Ashford TSA, Ebor TSA, Outwood Institute of Education, Shotton Hall TSA, The Stourport TSA, T2S, Silk Alliance, Bishop Challoner TSA, Lightwoods TSA, South Farnham TSA

Marking grids of objectives related to new national curriculum in stages

Tracking progress across cohorts over several years is a process that most schools had previously used by recording levels, sub-levels and equivalent point scores. Tracking in this manner has provided school leaders with a robust means of evidencing progress achieved. Seeking to replicate this kind of tracking system was something that alliances were keen to do, whilst ensuring that any new system was an improvement and related directly to what pupils were learning.

Some alliances developed a points system that related to whether the pupil had achieved results within a band such as ‘entering, developed, secure’. Points could then be awarded either against specific individual curriculum objectives or objectives grouped together. This system allowed the school leader to view a cohort noting the percentage of pupils on track or exceeding expectations.

The Stourport TSA produced a short film illustrating how a pupil progress meeting between the class teacher and headteacher would run if they were using the language of ‘entering, developed, secure’ evidenced by work that the child had produced. This alliance had worked in close collaboration with a group of schools to collect moderated examples of work to support their judgements.

The Colmore Partnership TSA developed and trialled a toolkit to enable numerical data to still be used, supported by statements to ensure all groups of children were making progress and targeted support could be given where required. Once this system had been developed, supporting materials were required to ensure that all assessed learning objectives from the new national curriculum were ‘broken down’ so teachers can see what exceeded / expected / emerging look like for each objective.

Figure 10: Proposed point system assessment tracking progress (to replace levels from September 2014)

Year	Emerging			Expected			Exceeding		
N	1			2			3		
R	4			5			6		
1	7	8	9	10	11	12	13	14	15
2	10	11	12	13	14	15	16	17	18
3	13	14	15	16	17	18	19	20	21
4	16	17	18	19	20	21	22	23	24
5	19	20	21	22	23	24	25	26	27
6	22	23	24	25	26	27	28	29	30

In the Severn TSA, use was made of the new curriculum statements for mathematics (primary), focusing on fractions. Summative testing of skill development and knowledge were completed during the end of KS1 and end of KS2 standard assessment tasks. With a focus on maths, a document called 'fractions assessment exemplification' was developed, containing details of the curriculum coverage for each age group and activities to support the assessment of children's understanding at each stage of development. Maths subject leaders in the 50 schools across the alliance have been working with this document.

Trent Valley TSA used an online platform to record and track progress in mathematics using a red-amber-green (RAG) rated system that also allows for objectives to be given a weighting if they have a problem-solving element. The baseline assessment at Reception gives a trajectory for the score at Year 6. As the assessments are made the progress is tracked against the trajectory as a graph. This system is currently being trialled by schools across Nottinghamshire. Development of this tracking process made the increased expectation and demand of the new curriculum very evident.

See links to the following schools in appendix B: Ashford TSA, Ebor TSA, Outwood Institute of Education, Shotton Hall TSA, The Stourport TSA, T2S, Chimney House TSA, Primary Excellence TSA, The Colmore Parternship, Severn TSA, Lightwoods TSA, The Pioneer TSA, Salop TSA, Tudor Grange Aademy Solihull, South Farnham TSA, Wigmore School, Trent Valley TSA.

Summative testing

Some alliances plan to use frequent low-stakes summative assessments to inform pupils, teachers and parents of progress against specific learning objectives. Progress checker sheets were piloted as a means of gaining feedback about knowledge and skills achieved at the end of a unit of work. One alliance focused exclusively on KS2 maths and implemented a 12 week tracking cycle with individual

pupil progress meetings between teachers and senior leaders held at the mid-point of each term.

Several alliances were trialling how end of unit tests might be captured for recording and tracking purposes, and explored a range of technological options (see section six).

Such results from regular summative testing results were used by some alliances as a means of providing robust data for developing tracking systems across cohorts and year groups. Significantly the summative tests derived within this research project, have arisen from the space for professional dialogue this research has generated.

Teachers have been devising units of work with new insights about learning and teaching; the resulting internal and locally created 'unit tests' being therefore closer in alignment to the pupils' experiences, skill targets and deepened understanding. The shift from memory recall questions to more higher-order test items, with the language of learning more accessible to the pupils has also been a feature of the summative assessment developments.

Salop TSA describes the progress checker developed in their project:

> 'Within Humanities, "Progress checker" sheets are being piloted – these are used at the end of a topic during an assessment lesson involving extended writing. The checker is used to support the student in identifying areas they need to develop whilst showing where they currently are. Sheets then lead to a differentiated choice of homework tasks that students are directed to based on their outcomes. The sheets rely on clear criteria and departments are now working on tracking back from the GCSE mastery statements to design the progression from Year 7 upwards to allow students to reach these grades. The curriculum at KS3 is now being redesigned to be a five year journey to the GCSE end point.'

See links to the following schools in appendix B: Ashford TSA, Ebor TSA, Outwood Institute of Education, Shotton Hall TSA, The Stourport TSA, T2S, Salop TSA, The Pioneer TSA, Wigmore School TSA, South Farnham TSA

Working backwards from GCSE

Although the details of revised GCSE examinations are still unknown, some schools decided that using highest level expectations of success at GCSE could be used to form expectations from Year 7 upwards. For several secondary lead schools the project was seen as an opportunity to create consistency and coherence across all year groups. Dissatisfaction with the lack of connection between national curriculum levels and GCSE grades meant that an alternative approach that allowed for bespoke subject specific tracking and feedback was a helpful prospect. Shotton Hall

TSA developed tracking grids with a points system for every subject in the curriculum. They aim to review this next term and share findings on their website before trialling this further with other schools.

George Abbot TSA likewise considered the learning trajectory across the secondary school:

> '[We] created a series of attainment statements – "beginning, sometimes, clearly & consistently, confidently, expertly & impressively" – and have loosely tied these to GCSE grades. These are – in many cases – the statements used by our exam board at GCSE, and so it allows students to peg themselves against GCSE gradings right from Year 7.'

However, some colleagues were concerned that especially where children were in special provision, to start talking with students about current and predicted GCSE grades from year 7 may be demotivating.

See links to the following schools in appendix B: Shotton Hall TSA, Alban TSA, Alliance for Learning, Bishop Challoner TSA, George Abbot TSA, Salop TSA

Moderation

The process of collaboration, shared enquiry and collective problem solving about assessment led in many cases to a renewed sense of the importance of moderation within and between schools. Colleagues commented that where this could be done in a climate of trust rather than competition there was much to be gained. Some teaching school alliances have already booked moderation events across their region in a range of subjects for 2014-15.

A variety of school alliances reported either beginning cross-phase moderation activities and/or recognising the need to engage more around the transition points that pupil experience e.g. N-R, Y2-Y3 and Y6-Y7 and Y11-Y12.

Bishop Rawstorne CofE Academy TSA commented:

> 'The project has also highlighted to us the importance of moderating judgements between schools now that there is no longer a national assessment framework for KS3.'

The Colmore Partnership TSA noted that across their alliance, all schools involved will be using the materials for assessment and meeting regularly for moderation and professional dialogue. The Pioneer TSA referred to how they had:

> '….become much more aware of the need to work collaboratively on national changes or initiatives in order to achieve mutual understanding for moderation and transition.'

See links to the following schools in appendix B: The Stourport TSA, Alliance for Learning, Bishop Rawstorne CofE Academy TSA, The Colmore Partnership TSA, Tudor Grange TSA, South Farnham TSA, Leading Learning Forward

Special school assessment developments

Mary Rose Academy, catering for pupils with severe and complex learning disabilities (2-19) and Cliffdale Primary Academy, a special school for pupils who have a wide range of complex learning needs (4-11), considered the value of recording incidental and spontaneous learning with pupils with autism spectrum conditions (ASC) in a school environment and explored methods of effectively assessing and recording progress.

The aim of this research was to provide teachers with a tool for assessment in reading that will demonstrate clear progression for pupils with varying individual needs. It was decided that the group would compile a document that would allow progression in reading with a broad range of reading skills – 'a progression in reading for individual pupils'. It would include links and cross references to the new national curriculum in English; P level statements; the EYFS development matters; active strategies; word recognition; new resources including appropriate texts and activities to embed learning.

It aims to ensure there is a clear progression that can be mapped across each of the three sources. (P Statements; Links with Foundation Stage (2012) and Development Matters (2012) and Links with the Expectations from Primary National Curriculum 2014). Each page refers to Matching Objectives and Assessment levels, and what the teaching will look like (with linked active strategies, word recognition and vocabulary development and language acquisition).

Figure 11: An example of ways of recording progress through incidental and informal learning from Mary Rose TSA

Matching objectives and Assessment levels			What will the teaching look like?		
P Statements	**Links with Foundation Stage (2012) and Developme nt Matters (2012) www.early-education.org.uk**	**Links with the Expectations from Primary National Curriculum 2014**	**Active strategies: Using stories, rhymes and familiar songs from home to support child's enjoyment, engagement and comprehension.**	**Word Recognition**	**Vocabulary development and language acquisition**
P1(ii) Pupils show emerging awareness of activities and experiences. They may have periods when they appear alert and ready to focus their attention on certain people, events, objects or parts of objects, *for example, attending briefly to interactions with a familiar person.* They may give intermittent reactions, *for example, sometimes becoming excited in the midst of social activity*	Enjoys looking at books and other printed material with familiar people	**Reading Comprehension:** Y1 Pupils should be taught to: develop pleasure in reading, motivation to read, vocabulary and understanding by: Listening to and discussing a wide range of poems, stories and non-fiction at a level beyond that at which they can read independently becoming very familiar with key stories, fairy stories Y2 becoming increasingly familiar with a wider range of stories, fairy stories and traditional tales	**Early stages of summarising, becoming familiar with journey of the story.** *Pick out the key concepts and events in text offer opportunities for pupils to react (this may be brief) to interesting events around them. **Visual and Sensory Responses:** Continue to break down a story into sounds, sights, smells and textures. *ensuring events and items are distinct to enable pupils to begin to discriminate differences. * Coactively engaging pupils, allowing time for pupils to respond and attend to items. Offer hand under hand experiences to explore items and props. *Introduce story concepts / items rhythmically with strong auditory and physical input. Adapt story concepts into simple repetitive chants with added pauses. *Explore the movements/ journey of the text or story through simple techniques and rhythms on items e.g. resonance boards/ massage *Introducing new items from the left. *Using physical actions, encouraging pupils to still as page is turned to aid anticipation e.g. adding firm pressure to wait for next item / action. *Assist pupils to join in with the rhymes through simple reflex actions. *Key concepts and words communicated through body signing	**Phase 1** Aspects 1-3 General Sound discrimination: environmental sounds, instrumental sounds. Play music and sounds with heavy beats and then quiet rhythm and give them oral labels e.g. bang, crash etc. Talk about the big and gentle sounds to help pupils to begin to discriminate. Give pupils opportunities to hear a variety of different sounds. Orally model repeating phonemes for beginnings of words e.g. first phoneme of their name, or m um, etc. Body percussion: tapping rhythm of words with body parts, listen to music and encourage simple movements to join in with actions. Listen to and respond to music. Respond to different sounds eg clap, stamp etc. For further ideas see P20-23 Letters and Sounds.	Read and re-read books that have different characters and use the same voice for each to develop a recognition of familiar voice. Use puppets, story characters, toys etc to encourage pupils to use comforting tones etc. Read rhyming stories and books with repeated phrases to encourage pupils to begin to repeat same sounds. Read a wide variety of stories that have strong links to sounds and act out the sounds when reading e.g. Peace at Last. Use different noises for different situations

See links to the following schools in appendix B: Portsmouth TSA

Summary - Assessment strategies to capture progress

In the absence of externally provided assessment levels, teaching schools have demonstrated here that they have welcomed the opportunity to engage in researching alternatives that would more readily meet their local needs.

Given the variety of approaches, all with degrees of similarity and difference, the key factor of consistency across schools and counties has been raised as a concern. Based on a history of league tables and public accountability systems, how the various forms of data capturing will be easily collated remains a concern; some schools have adopted numerical values, others alphabetical points systems.

Significantly, as revealed through the audits of existing practice (appendix A), this project has revealed the inconsistences within and across schools of assessment practices and facilitated opportunities for more teachers to become involved and have ownership over planning for assessment systems that will also engage pupils in more meaningful activities. See also, additional resource for outcomes and impact statements.

Section six: Development of software for tracking progress

A range of different technological options were explored across the alliance schools taking part. Some were used to capture formative assessments, often to share with parents, while others addressed the challenge of tracking.

Bishop Challoner TSA brought alliance attention to four software applications that can be used for assessment without levels.

- **PiXIe software** has proven to be the most popular. These group subjects into 'domains' and have banks of statements arranged into hierarchies from bands 1-9 consistent with new national curriculum grading arrangements. It is this alignment with GCSE that has proven so attractive.

- **EDIounge software** was looked at. This was essentially a series of 'I can..' statements. While popular with primary schools discussion with the software writers revealed it would not meet secondary needs where more technical and subject specific terminology was needed to offer precise and distilled feedback.

- **"Flightpath" software** was explored and while it offered potential, was too prescriptive in terms of what trajectories of progress looked like.

- **SIMS** is the tracking tool that all schools will be using.

Within the alliance, various schools consided each application. Because of the variation of context and software, those schools involved finally agreed that the SIMs package met the following four tests that the alliance consided to be necessary for any newly adopted programme.

- **Benefit:** Whatever it is that is changing, that change should have a clear relative advantage for those being asked to change; it should be seen as 'a better way'.

- **Compatibility**: The change should be as compatible as possible with the existing values and experiences of the people being asked to change.

- **Simplicity**: The change should be no more complex than necessary; it must be as easy as possible for people to understand and use.

- **Triability**: The change should be something that people can try on a step-by-step basis and make adjustments as things progress.

SIMS was also used by Wigmore TSA to develop a system to enable schools to record pupils' attainment in terms of the following:

Figure 12: Pupil attainment recorded on SIMS to show status of achievement

Each stage of a year group has a points value so that progress can be measured.

The terms reflect the new and increased expectations from the new curriculum.

Primary Excellence TSA looked at using technology for both formative and summative assessments:

- Use of dictaphones and flip cameras for pupil reflection on learning (Key Stage (KS) 1). Using technology to capture understanding was more efficient due to the writing ability of KS1 children. KS2 also expressed their understanding using technology which has linked to objectives from the new curriculum.
- Sound files were used across key stages to capture the student's opinion of their learning.
- Using online whole school assessment programmes to record progress and attainment data across different school groups.

Silk Alliance worked with an associate partner school (outside of the alliance) who had developed a cloud based assessment application for use on IOS7 platforms linked to new national curriculum age related expectations.

Lightwoods TSA drew on standard support tools. Outcome statements and assessment criteria have been used as the assessment foundations to a unique piece of assessment software which has been designed and created to capture evidence of the children's progress. The software offers channels to communicate with parents, with evidence of the progress and achievement their child has made, not only in relation to national expectations but also in relation to work achieved in class (not just in books).

Specially designed and created software allows teachers to use the skills ladders to plan lessons for children and identify, accurately and rigorously plan the next steps in their learning. Teachers can then capture evidence of this achievement and work against national curriculum objectives/assessment criteria in order to create an electronic profile which evidences the child's standards of achievement against the school's and national expectations.

The e-profiles will be able to give a real picture of assessment as it will enable children to show a learning process and journey, from design through to development, through to evaluation.

The evidence captured can then be commented on by teachers – to give the teacher's professional interpretation and assessment, but it can also be tagged with assessment objectives so parents, teachers and external agencies can see not only the standard the child achieved, but process they went through to achieve it, and what skills they used/acquired and what content they covered.

The e-Profiles are also able to be linked to a main school server so the school is able to moderate internally and externally as they will be able to adjust, edit, share and publish these e-profiles. They can also be uploaded to learning platforms so parents can see their child's progress and development.

The learning ladders and assessment objectives are also a key component in capturing progress. The learning ladders can be used regularly in class alongside the app, for children to reflect on and assess their own learning.

In line with the approaches used by SOLO Taxonomy, children can undertake projects and identify the objectives they wish to meet. Children can assess their own and other children's successes against these identified objectives. They can then capture their success and self-assess using the assessment software app and share the record of their own achievement and assessment.

See links to the following schools in appendix B: Bishop Challoner TSA, Lightwoods TSA, Chimney House TSA, Primary Excellence TSA, Silk Alliance, Tudor Grange TSA, Wigmore School TSA, Trent Valley TSA, Lambeth TSA North, Shotton Hall TSA, Leading Learning Forward

Section seven: Outcomes and impact for schools

From the coordinated activities and the reports schools were asked to submit, some key outcomes and impact statements have been identified. See also Beyond Levels: evidence of outcomes and impact (Lilly, Peacock, Shoveller and Struthers, 2014) for more detailed information.

Outcomes

- **Increased professional dialogue:** all TSAs referred to the opportunities the research offered for teachers and school leaders to have supported time to explore professional ideas around assessment, to explore a range of options and to find their voice in articulating their work and research. One senior leader announced that in 17 years of teaching, participation in cross-phase collaboration had been the 'most exciting work' he had ever done.

- **Clarity about the purposes of assessment**: significantly many more teachers have been involved in discussions about the tension between the **process** of assessment and the **products** of assessment; while also recognising that assessment currently tries to serve too many purposes. Several colleagues commented on their enhanced knowledge and confidence about assessment as a result of the project.

- **Pupil involvement in the learning process:** the importance of placing pupils at the centre of the assessment process; and involving their active participation and views was a recurring outcome. Enabling young people to have a clear understanding of what they were learning and needed to learn next, was recognised as important. Some KS3 colleagues said that the removal of levels was 'liberating' as this meant that there could be a move away from constantly preparing 'levelled work', focussing instead on a much richer variety of tasks to illustrate learning and understanding. Young people commented that the most important reason for assessment was for them 'to make as much progress as possible'. One KS3 student said 'now everything I do counts'.

- **Subject specific assessment:** there was general recognition that the demands of different subjects meant that tailored models of recording progress were needed. One colleague reflected that in secondary PE the level descriptors had been too broad to be helpful: 'the skills and progress in tennis are very different from those in hockey'. Detailed understanding of subject progression is needed to develop assessment systems for foundation subjects.

- **Summative assessment:** with the clarity of purpose about assessment, came recognition that low-stakes testing could be a motivating way of ensuring that young people knew how much progress they were making. Some alliances developed models

on a 6 or 12 week cycle with detailed summative assessments recorded at the end of each period. Many colleagues agreed that the enhanced expectation within the core subjects of the new national curriculum would be best achieved through sustained teaching and practice of fewer concepts in greater depth. Regular testing could be used to check for fluency and mastery.

- **A culture shift**: one group of headteachers chose to engage in the project because they had all been inspected earlier in the year and subsequently felt 'free to innovate'. In most schools working without levels has meant that the culture for whole school assessment has needed to develop and change. For some leadership teams this process now involves offering more genuine opportunities for young people to make choices and to challenge themselves in excess of teachers' traditional expectations.

- **An opportunity to take a broader view**: some alliances were driven by a desire to improve progress measures to take a wider perspective of pupil achievement across the entire school experience. The removal of levels was viewed as an opportunity to refresh priorities.

- **Consistency of language:** another outcome has been the growing awareness for a common language and consistency of approach across the phase and year groups; primary to secondary was recognised, and even within special schools. Will this be possible if each alliance is developing their own assessment processes? Interestingly, it was often felt that the existing system of national curriculum levels had not provided this. One teacher expressed this as 'we all know that a level 3 in Year 2 is very different from level 3 in Year 6'.

- **Engagement with research:** one outcome has been that more teachers have become involved in research and appreciated the significance of research activity. Several alliances have now experienced working closely with colleagues from HEIs and others appreciated taking time to read about the issue and to engage in seminars and debate. The outcome will be a continuation of research collaborations and communities.

- **The promise of technology**: the prospect of using new technology to enable a closer blend of qualitative and quantitative aspects of assessment was a noted outcome, keeping parents and carers much more informed and potentially enabling young people more ownership of their learning development and progress. Some alliances produced software packages and apps that will be available more widely and for trial during 2014-15.

Impact

- **Grass root buy-in to assessment changes**, has meant that in preparation for September 2014 alliances will be disseminating findings and supporting schools to

engage with ‘marking grids’ ‘progression objectives’ ‘SOLO and Bloom’s Taxonomy’ informed planning approaches

- **Continued professional analysis:** as a result of this project, all schools will continue to **evaluate** and **revise** their approaches to assessment in relation to changes to the curriculum. In particular working down from KS4 to KS3 into KS2.

- **Vision for school leaders:** having invested time and money to create the assessment objectives, leaders have a much clearer understanding of their subjects moving forwards with the new national curriculum and will continue to develop effective assessment practice having had the time and support to immerse themselves in the new approaches.

- **Introduction of the new national curriculum**: more teachers will be able to engage with creating plans from these new documents that will include both formative and summative assessment practices.

- **Tailor-made assessment tools:** some schools will be seeking ways to further develop software programmes, use of portals and a variety of data capture methods which could mean that parents and pupils would engage with the process

Section eight: Key messages and conclusion

For all participating teaching schools and their alliances, the consequences of undertaking this project and working in partnership have been much greater than was originally intended and have led to common benefits. These include:

Joint Practice Development

The critical step of moving from conventional CPD to JPD is that the emerging new practices yield common benefits that are then available to all. This move is from what has been called ‘sharing-exchanging’ to ‘sharing-exploring’ (Huxham & Hibbert, 2008). In this sense several schools suggested they had all become more adept in sharing-exploring.

The process of a research project is better understood, including the importance of the cyclic process of plan / do / review. The risk element of the project (i.e. some teacher efforts did not bear useful fruit) has made most teachers more resilient and confident to experiment with new ideas. Learning to manage failure within professional communities, has led some teachers to consider whether we are as a profession too risk averse in our pedagogies?

Planning

Successful pedagogy involves thinking about the relationship between individual lessons and longer term outcomes. Too frequently lessons fail because they have been designed backwards ie resources, activities, learning intentions and then success criteria. What the project crystallised in all participant thinking was the necessity to plan in the opposite way ie success criteria (milestone statements), learning intentions (inch pebbles), activities that deepened thinking and resources.

Professional dialogue

A strong focus on the importance of high quality dialogue and feedback was reported by many schools, as well as the opportunity to attempt a broader view of assessment to include qualitative as well as quantitative data.

One of the most challenging issues faced was that, as teachers, although we tweak with ideas and work **with** research, the profession itself is not skilled in working **in** research. Collaboration between schools has been very informative and empowering. Providing schools with a genuine open-ended problem to engage with has provided, in most cases, a spur towards innovation and collective effort often across schools of very different types and across phases.

Links to new national curriculum

The detailed specificity within core subjects provided by the new curriculum, offers the opportunity for assessment to be very closely aligned.

Detailed understanding of subject progression is needed to develop assessment systems for foundation subjects. Several alliances commented on the importance of recognising that individual subjects require different forms of assessment systems in order that progress can be identified.

Assessment approaches

Most schools focused on assessment as a means of ensuring progress both at the individual and cohort level. Although school leaders are used to detailed numerical tracking systems, in most cases where attempts were made to create new tracking models these aligned very closely with the detail of learning, rather than replicating the ‘best fit’ approach of national curriculum levels.

A shift is needed in the type of information shared with young people, families and on transfer. Instead of levels, detailed information can be shared about what the young person has fully understood and is able to do.

Across the board, it was often easier and more relevant to devise processes for recording individual or cohort achievement related to the curriculum. There was less confidence about how to report this across large groups of students and between schools.

Section nine: Moving forward / recommendations

The recommendations below are for both the department for education and schools to consider as alternatives to assessment levels are implemented within schools.

- A culture shift regarding the nature, range and purposes of assessment needs to take place, in recognition of the new opportunities provided both by the new curriculum and the removal of levels.
- Conferences and seminars are needed nationally, to enable all schools to confidently develop their assessment expertise and learn from each other. Professional learning about the range of purposes and methods of assessment is a priority.
- The system would benefit from access to peer reviewed commercial tracking systems that focus directly on the detail of the new curriculum. Clarification is needed about the form of data to be captured centrally, so that schools can develop systems that meet these requirements.
- Financial support for alliances and other groups of schools to further develop their assessment practice in collaboration is needed, with a view to supporting the development of practical classroom materials for the school-led system to use. These resources should be available free of charge from a national website.
- Financial ncentives to encourage teachers to be research active and complete post-graduate and masters-level courses would ensure the profession builds and sustains dynamic engagement with HEIs..
- The development of professional knowledge about emerging effective assessment practice isessential for the school-led system in order that the removal of levels can enable more meaningful feedback and monitoring processes to develop,

References and key reading

Alexander, R. J. A (ed), 2010, *Children, their World, their Education: final report and recommendations of the Cambridge Primary Review*: Taylor & Francis US

Berger, R, 2003, *The Ethic of Excellence*

Black, P., & Wiliam, D, 2009, Developing the theory of formative assessment: *Educational Assessment, Evaluation and Accountability (formerly: Journal of Personnel Evaluation in Education), 21*(1), 5-31.)

Clarke, S, 2001, *Unlocking formative assessment: practical strategies for enhancing pupils' learning in the primary classroom*: Hodder & Stoughton educational

Claxton, G, 2002, *Building learning power*: TLO Limited Bristol

Claxton, G, 2011, The Learning Power School TLO Ltd Bristoldweck mindset

Costa, A. L., Kallick, B., & White, T, 2009, *Habits of mind*: ASCD

Davis, A. J., 2011, *Building comprehension strategies*. Melbourne, Australia: Eleanor Curtain Publishing

DfE, 2011, *Framework for the national curriculum: a report by the expert panel for the national curriculum review* Ref: DFE – 001 35-2011.

DfE, 2014a, *National curriculum in England: framework for key stages 1 to 4*

DfE, 2014b, *Reforming assessment and accountability for Primary schools*

Dweck, C, 2006, *Mindset: How you can fulfil your potential*: Constable & Robinson Ltd London

Eaten, S.E, 2010, *Formal, Non-Formal and Informal Learning: The Case of Literacy, Essential Skills and Language Learning in Canada*, Calgary: Eaten International Consulting Inc.

Fullan, M, 2014, *Teacher development and educational change*. London: Routledge)

Gipps, C. (ed), 1995, *Intuition or Evidence?* Open University Press. Buckingham, Philadelphia

Hargreaves, DH, 2010, *Creating a self-improving school system* National College for School Leadership

Hargreaves, DH, 2011, *Leading a self-improving school system* National College for School Leadership

Harrison, C, 2013, Collaborative action research as a tool for generating formative feedback on teachers' classroom assessment practice: the KREST project, Teachers and Teaching: theory and practice, 19:2, 202-213, DOI: 10.1080/13540602.2013.741839

Hart,S., Drummond, M.J., Dixon, A., McIntryre, D, 2004, *Learning without Limits* Open University Press

Hattie, J, 2012, *Visible learning for teachers. Maximising impact on learning.* Routledge London New York

Hattie, J, 2013, *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*: Routledge

Hook, P & Mills, J, 2011, SOLO Taxonomy: A guide for schools – A common language for learning Book 1 Essential Resources Educational Publishers NZ

Hook, P & Mills, J, 2012, SOLO Taxonomy: A guide for schools –Planning for differentiation Book 2 Essential Resources Educational Publishers NZ

Hook, P & Cassé, B, 2013, SOLO Taxonomy in the Early Years: Making connections for belonging, being and becoming, Essential Resources Educational Publishers NZ

Huxham, C., & Hibbert, P, 2008, Manifested Attitudes: Intricacies of Inter-Partner Learning in Collaboration. *Journal of Management Studies, 45*(3), 502-529. doi: 10.1111/j.1467-6486.2007.00754

James, M, 2006, *Teaching and Learning Research Programme*

Kagan, S, 2009, Kagan Cooperative Learning . San Clemente: CA: Kagan Publishing

Kohn, A, 1999, *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes*: Houghton Mifflin Harcourt

Krathwohl, D. R, 2002, A Revision of Bloom's Taxonomy: An Overview, Theory Into Practice. *Theory into Practice, 41*(4), 212-218. doi: 10.1207/s15430421tip4104_2

Lilly, Peacock, Shoveller & Struthers, 2014, *Beyond Levels: evidence of outcomes and impact*, Nottingham, National College for Teaching & Leadership

Lucas, B., & Claxton, G, 2010, *New Kinds Of Smart: How The Science Of Learnable Intelligence Is Changing Education: How the Science of Learnable Intelligence is Changing Education*: McGraw-Hill International

Marks, R, 2014, Educational triage and ability-grouping in primary mathematics: a case-study of the impacts on low-attaining pupils. *Research in Mathematics Education*, 1-16

Marks, R, 2014, The Dinosaur in the Classroom: what we stand to lose through ability-grouping in the primary school. *Forum*. 56(1), 45-54

Martin, S, 2011, *Using SOLO as a Framework for Teaching: A case study in maximising achievement in science.* Essential Resources Educational Publishers NZ

Miles, M.B. & Huberman, A.M, 1994, Qualitative Data Analysis: An Expanded Sourcebook (2nd Ed).Thousand Oaks, CA: Sage.

NAHT, 2014, *Report of the NAHT Commission on Assessment*, West Sussex, NAHT

Ndaji, F. and Tymms, P, 2009, *The P Scales: Assessing the Progress of Children with Special Educational Needs*, Wiley: Chichester

Nrich http://nrich.maths.org/7701

Sebba, J., Tregenza, J. & Kent, P, 2012, *Powerful professional learning: a school leader's guide to joint practice development,* Nottingham, National College for School Leadership

Sebba, J., Tregenza, J. & Kent, P, 2012, *Helping schools to use evidence on joint practice development to improve their practice*, Nottingham, National College for School Leadership

Swann, M., Peacock, A., Hart, S., & Drummond, M. J, 2012, *Creating learning without limits*. Maidenhead: McGraw-Hill International and OUP

Swaffield, S. (Ed), 2008, *Unlocking Assessment: Understanding for reflection and application.* London: Routledge.

Syed, M, 2010, *Bounce: the myth of talent and the power of practice*: HarperCollins UK

Thomson, P., Hall, C., Jones, K., & Green, J. S, 2012, The signature pedagogies project: Final report. CCE: Newcastle

Wiliam, D, 2011, *Embedded Formative Assessment*: Hawker Brownlow Education Pty Ltd

Appendix A: audit summary of current assessment practices

Some schools began by doing an **audit of what assessment practices were currently being used in schools**. Their findings were shared at the three mid-point meetings and there was much agreement with the data that was tabled. Therefore the summary below gives a broad and representative picture of the nature of assessment across primary, secondary and special schools.

One primary school considered the following:

- current practice in schools.
- effectiveness of current practice
- Ofsted judgements on current practice.
- current software apps in use in schools
- results of surveys on children's, parents and professional's opinions on current assessment approaches.

Their investigation revealed that within the alliance there was sound practice giving rise to a caution against risking destabilisation of institutions by throwing out great practice and starting again. Thus they:

- evaluated current practice and identified key foci of that practice – use of skills ladders, trackers and ongoing AfL were vital.
- explored current software and the emergence of capture software in order to assess work. They used software in schools and found issue with showing the picture of assessment as most apps showed coverage of objectives – this is not assessment. Covering objectives is not learning and development.

There was some confusion regarding levels. People responded positively to the EYFS method of assessment. Surveys showed that parents and pupils though, would have a very clear picture of assessment and attainment if the school leads it correctly and has a close and positive relationship with parents – communicating effectively the child's development.

A summary of examples from those Teaching Schools who completed an audit of existing assessment approaches across their alliances is given below.

Table 2 Summary of existing assessment approaches within primary TSAs

Assessment approaches	Reflections on existing practice
Use of APP statements supported by explicit 'WALT' (We are learning to) and 'WILF' (What I'm looking for) statements.	- A more rigorous approach in matching APP statement to planning and to track progress was required, - Detailed and time consuming, - Concern about the amount of evidence required for each level, - More explicit success criteria were required for pupils to understand.
Formative/summative	All schools use a combination of both formative and summative assessments. Formative: using AfL, self and peer assessing, target setting, as part of the teaching within a lesson. Summative: end of term tests, QCA, SATs, NFER, judging pupils against levels and tracking pupil progress.
Assessment policies	Most schools felt their assessment policies needed reviewing. Suggestions were made to have separate Formative/Summative policies. Often, formative assessment strategies were included in the reaching and learning policies.
Moderation	Most schools do have a whole school marking policy but it is frequently not adhered to by everyone within the school. Writing moderation is far more consistent than moderation in other subject areas. little or no moderation of mathematics, science and foundation subjects.
Target setting	Formal summative assessments help to make comparisons across groups, and provides information to inform target setting. Some pupils are given time after the test to review their answers but some are not given any time at all. Formal summative assessments can show teachers which skills are embedded away from the point of teaching.

Assessment approaches	Reflections on existing practice
Use of criteria scales	All schools use APP or similar criteria to measure progress for Writing. Some were using it to measure progress in maths and reading but none were using criteria in Science or Foundation subjects. Formal teacher assessments against criteria were completed at least half termly in KS2 and termly throughout all the schools. it is common practice to use old SAT papers and optional SAT papers to test pupils in maths and English at least termly.
Assessing foundation Subjects	Foundation subjects and Science are not assessed in the same way and when assessments are made they are far less rigorous, often assessing what has been taught and not what steps the pupils need to do to improve.
Feedback	Feedback is given in various ways: • verbal, during the lesson both from peers and adults. • written from peers and adults during the lesson. • written from teacher after the lesson. • mini-plenaries during the lesson. • Codes/symbols used in written feedback to help poorer/younger readers. • pupils often give their own feedback to the teacher in the form of smiley faces or traffic lights. Less written and more verbal feedback given in EYFS and KS1. Written feedback used more as pupils get older and become more mature learners. Feedback is usually linked to Success Criteria in writing but is far less developmental in Maths and Science. Less sure about feedback in Reading and not rigorous in Foundation Subjects.

Table 3 Summary of existing assessment approaches within secondary TSAs

Assessment approaches	Reflections on existing practice
Level assessments – as summative assessment.	Pupils and staff all rated these as the best way to measure progress - but had concerns over pupil understanding of meaning.
'Test' style summative assessments	Pupils and staff rated this as an extremely important style of assessment.
Feedback grids – subject specific with literacy targets	A new introduction and used less often. However those staff that did use them found them extremely valuable and pupils liked them. To be increased.
Questioning using Bloom's Taxonomy	High level, done well, but often implicit not explicit. Needs support.
Peer marking	Varied in quality - staff and pupils agreed that it was the least valuable approach
Level descriptors still in use	Many department heads felt trapped in the use of levels and the descriptors. Frustration at the short timescale for change to a new system was a common theme. Summative testing using old SATs papers was still in use in some departments.
GCSE descriptors used at key stage 3	One alliance reported that only one of their nine departments across three schools used this. The head of department was confident in this approach as he was a current examiner for this subject.
APP used to assess student work and to set targets for development	- Its details and size makes it cumbersome, - The language is difficult to communicate to students and parents, - Students struggle with the connection between APP and GCSE assessment criteria.
Written teacher feedback and student SE using a 'FUSE box' approach (Facts, Understanding, Skills,	- Difficult to identify next steps for most the able.

Assessment approaches	Reflections on existing practice
Explain)	
Simple tick and comment marking and assessment of student work.	- Students were disengaged from the subject - Students unaware of what they needed to do to improve further

Other examples of asessment approaches noted in school audits included:

- summative end of year tests
- formative teacher assessment (termly)
- target setting (numeracy and literacy)
- success criteria / ladders for children
- big write – once a month
- anecdotal records
- science observations form practical tasks referencing APP
- standardised half termly and termly assessments
- use of school pupil online tracker
- pupils' self-assessment
- regular standards and progress meetings.
- easily identified next steps for children

Appendix B: teaching schools, regions and websites

The table below contains details of all teaching schools that participated in this project. Resources from their individual projects will be shared on their alliance websites.

Table 4 participating teaching school alliances

Teaching School Alliance	Region	Link
Alban TSA	East of England	www.albantsa.co.uk
Alliance for Learning	North West	www.aggs.trafford.sch.uk
Ashford Teaching Alliance	South East	www.ashfordteachingalliance.co.uk
Balcarras Teaching School Partnership	South West	www.balcarrasteachingschool.com
Bishop Challoner TSA	West Midlands	www.bctsa.org/
Bishop Rawstorne CofE Academy TSA	North West	www.bishopr.co.uk
Cambridge and Suffolk Schools Alliance (CASSA)	East of England	www.cassateaching.co.uk
Central Bedfordshire Teaching School Partnership	East of England	www.cbtp.co.uk
Chimney House TSA	North West	http://hccs.info/
Ebor TSA	Yorkshire & the Humber	www.ebor-tsa.org

Northern Lights TSA	Yorkshire & the Humber	www.northernlightstsa.org
George Abbot TSA	South East	www.georgeabbot.surrey.sch.uk
Harrogate and Rural TSA	Yorkshire & the Humber	www.hartalliance.org.uk
Lambeth Teaching Schools Alliance North	London	http://seasonedtraveller.net/profile.html
Leading Learning Forward	Yorkshire & the Humber	www.leadinglearningforward.org.uk
Lightwoods TSA	West Midlands	Lightwoods website
Outwood Institute of Education	Yorkshire & the Humber	http://oie.outwood.com/
Parbold Douglas CE Academy Teaching Alliance	North West	www.pda.lancs.sch.uk
Portsmouth TSA	South East	www.portsmouthtsa.org
Primary Excellence TSA	North West	www.primaryexcellence.org
Severn TSA	West Midlands	www.severnteachingschool.co.uk
Silk Alliance	North West	www.silkalliance.org.uk
Shotton Hall TSA	North East	www.shottonhallschool.co.uk/teaching-school

South East London Catholic Teaching Alliance	London	www.catholicteachingalliance.org.uk
South Farnham TSA	South East	www.south-farnham.surrey.sch.uk
Salop TSA	West Midlands	www.salopteachingschool.co.uk
Teaching School Alliance West Kent and West Sussex (TAWKE)	South East	www.tawke-teaching-school-alliance-west-kent-and-east-sussex.com
The Colmore Partnership TSA	West Midlands	www.cptsa.co.uk
The Pioneer TSA	South East	www.pioneeralliance.co.uk
The Stourport TSA	West Midlands	www.shs.worcs.sch.uk
The Wroxham Transformative Learning Alliance	East of England	http://wroxhamtla.org.uk/
Together to Succeed (T2S)	North East	www.t2s.org.uk
Tudor Grange Academy Solihull	West Midlands	www.solihull.tgacademy.org.uk
Trent Valley TSA	East Midlands	www.tvtsa.co.uk
Wigmore School TSA	West Midlands	http://hereteach.org.uk
Yorkshire Inclusive TSA	Yorkshire & the Humber	www.yorkshire-inclusive.org

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