

East Lothian Council

Building Bridges in Literacy

2003 – 2004.

Case Study

How do formative assessment strategies help pupils develop analytical and reflective skills required for effective communication?

Pinkie St. Peter's Primary School and Musselburgh Grammar School

1. The Background to the project

The Context

East Lothian is a small local authority within commuting distance of Edinburgh. The area offers a mix of schools and catchment areas. The two schools involved in the project are situated in the part of the authority close to the capital.

Pinkie St. Peter's Primary School is a non-denominational school serving the eastern area of Musselburgh, and includes the communities of Pinkie Braes, Windsor Park and Levenhall. The school is one of seven feeder primaries within the Musselburgh Grammar School cluster. In session 2003-2004 there were fifteen classes from P1 – P7, with a Support Base attached which caters for children with Special Needs. In line with East Lothian's policy on inclusion, nine children were part of mainstream classes at that time. The roll was 389, with children coming from a wide range of backgrounds.

The project involved staff and pupils in one of the two P6 classes, and one of the three P7 classes. The Deputy Head Teacher provided management support.

Musselburgh Grammar School is a six year comprehensive school which serves the communities of Musselburgh, Wallyford, Whitecraig and surrounding areas. The roll in session 2003-2004 was 1329. The school, in common with other secondary schools in East Lothian, has been part of the PPP project.

A new Head Teacher was appointed to the school at the start of the school session 2003 – 2004. There were changes in key staff involved in the Building Bridges Project through the autumn term of 2003, the final group of team members only being established around Christmas 2003. The Principal Teacher of English and one other English teacher worked with the second top set of S1, and a newly appointed acting Deputy Head Teacher worked with two mixed ability S1 Science sections on the project, as well as providing management support.

The library services in the authority were represented by the then job-sharing librarians attached to the secondary school, (although they spent the first months of the project based at library headquarters, due to hold-ups with the PPP project), and the Senior Librarian, Young People's Services.

The authority Education Officer who was originally project leader retired at the end of 2003, and a newly appointed Education Officer took over this role. The Advisory Teacher for English in the authority co-ordinated the administration and day-to-day running of the project, and helped support the schools.

2. Our aims

Our Key Focus – the question

The initial audit¹ identified a number of common needs. These included helping staff learn about formative assessment and encouraging them to use this in their teaching. Schools were also striving to raise attainment in reading through closer analysis of texts. It therefore seemed obvious to incorporate these into our aim, though we soon began to realise that our work had a much wider focus. We wished also to enrich the professional partnerships among staff in the two sectors, and to provide pupils with an increased sense of purpose and involvement. This led us to our key question:

How do formative assessment strategies help pupils develop analytical and reflective skills required for effective communication?

3. The Preparation

It was decided to use nfer-Nelson Progress in English tests to provide a base line of learning. All the pupils in P6 and P7 attending Pinkie St. Peter's Primary School, except those who attend the Support Base, completed these, as did all S1 in the secondary school. The results, at that early stage in the session, provided a useful insight about pupils which staff were able to take account of in their future teaching. The pupils who had been taught using the formative assessment techniques, as well as a proportion of the original 'testees', were retested in May 2004.

One other primary school in a different cluster within the authority had introduced formative assessment in session 2002 - 2003. Having already read 'Inside the black box'², and 'Working inside the black box'³, the 'Building Bridges' group approached this school to ask about their experiences. One of the staff involved in this earlier work agreed to give a short presentation, including a video, to the 'Building Bridges' group. This proved an extremely useful meeting, highlighting both the theoretical and practical elements of formative assessment.

Following this presentation, staff involved in the project were given copies of 'Targeting Formative Assessment in the Primary Classroom'⁴, and 'Unlocking Formative Assessment'⁵. These proved to be very helpful aids to the teachers concerned.

After this, staff decided how they could adapt or alter their existing plans for the January to Easter term 2004 to include teaching using formative assessment techniques. This was more difficult for some staff than others, because of the agreed syllabus in the schools, and encouraged everyone to think carefully about how they really taught. Once completed, these plans⁶ were shared with others in the project.

A secondary school librarian and the head of the young people's library service had attended our meetings, and were able to offer support both with advice about paper resources, as well as identify, screen, and collate web sites which were appropriate to the work. This led to further collaboration with one of the authority IT officers to place links to these sites on the authority's Millennium Schools web site⁷ – another bridge which had been unanticipated at the start of the project!

4. Working with the pupils

¹ See appendix 1

² 'Inside the black box', by Paul Black and Dylan Wiliam, pub. King's College, London

³ 'Working inside the black box', by Paul Black, Christine Harrison, Clare Lee, Bethan Marshall and Dylan Wiliam, pub. King's College, London

⁴ 'Targeting Assessment in the Primary Classroom', by Shirley Clarke, pub. Hodder and Stoughton

⁵ 'Unlocking Formative Assessment', by Shirley Clarke, pub. Hodder and Stoughton

⁶ See appendix 2

⁷ www.millenniumschoools.co.uk/eastlothian/ict Thereafter, click on 'Links for Pupils, the 'Building Bridges

In the **P6 class**, traffic lighting had been introduced in maths where it was an immediate success, with pupils quickly realising the benefits of being honest in admitting when they were unsure of something. In language, the pupils took a little longer to adjust to wait time of 20 seconds. The teacher reported that at first some pupils seemed to think there was something wrong with her! A lot of the work was concerned with genre indicators and figures of speech in poetry. The class teacher reported that using wait time allowed both 'ends' of the class to think before replying, and that this had led to increased respect for some of the previously 'slower' pupils, who now not only were able to answer, but whose answers showed perception of which other class members had previously been unaware. This fostered a new respect for these pupils among their classmates. Although the direct teaching element of lessons took longer (up to twenty minutes), because of the increase in oral work that pupils undertook, pupils remained focussed till the end of the lessons. The increased quality of discussion and responses that emerged meant that, while there might only be a short amount of time left in the lesson for written work, the quality of this also improved, and the *overall* pace of learning was increased. In the view of the class teacher, this improvement in quality was attributable to the use of formative assessment techniques.

The focus in the **P7 class** was a non-fiction topic. The class teacher discussed the techniques she was going to use with the class before she began, and quickly decided that she would announce to pupils at the start of a lesson if she was going to use wait time, and tell the pupils not to raise their hands to give an answer. After a few lessons, the pupils were encouraged to be critical of 'closed' questions, and were encouraged to devise their own 'open' questions. This encouraged questioning skills in the pupils.

Throughout her teaching career, the P7 teacher had employed formative assessment skills in her teaching. Sharing this knowledge, and the aims of the techniques, has formalised this practice, enhancing the learning experience. Because of her day-to-day teaching methods, however, the teacher found it hard to decide, anecdotally, how much additional progress formalising formative assessment has been responsible for in her pupils.

Throughout this, the **Deputy Head Teacher** of the primary school was available to support and discuss progress with the two teachers, and acted as a link with the local authority staff as well as the secondary school.

Early in January 2004, all **S1** in Musselburgh Grammar School had been involved in one half day working with staff from 'The Learning Tree'. The **Deputy Head Teacher** in the secondary used this experience and the confidence it inspired as a springboard into using formative assessment techniques with her **Science sections**. Wait time, in conjunction with supplementary questioning, was used to build self-confidence and self-esteem in her pupils. Through this she encouraged quieter members of the sections to participate more in discussion and in answering questions. Later in the term traffic lighting was introduced.

In the **English department**, a slightly different approach was used. The focus of work was on listening and reading for information, which involved a lot of oral work. Groups of pupils were encouraged to use traffic lighting to re-order group talk criteria, from Level A to Level E, and then use these in their own work. Peer assessment of written work was also carried out using the traffic lighting technique. This led to individual oral presentations which were described as '*superb*' by the class teacher. Not only was the vocabulary of the pupils concerned '*sharper*', but pupils had '*shifted up a gear*' in talk. They had gained in confidence and were much more aware of which areas of their own work required more attention.

In addition, a series of **cross sector visits** among the staff was organised. This proved very difficult because of time-tabling restrictions and staff absences, even though the two schools are within walking distance of each other. It was particularly difficult for the secondary staff to visit the primary. Visits by the primary teachers to both the English and Science departments were successful, and one member of the English department visited the primary school. The Advisory Teacher of English was able to visit both the primary and the secondary. Despite the difficulties, staff felt this was a worthwhile exercise, which had concrete results. For example, the P7 teacher introduced peer assessment using the traffic lighting system after seeing it in use on her visit to the secondary.

5. What did we achieve?

a) The Impact of the Project - Anecdotal Evidence

One way in which we measured our progress was through a series of questionnaires⁸ and discussions.

The **P6 teacher** could see that her class were now *'better thinkers'*, and that they had more *'confidence and belief in their opinions and ideas'*. They had an increased self worth and were more willing to offer suggestions. She felt that she was now more aware, reflective and evaluative than before in her teaching, and was formulating more open questions. She was *'beginning to use wait time without thinking. (The rewards are huge from this!)*' and found that she was *'incorporating all the [formative assessment] work right across the curriculum, and it not being a conscious effort but more of 'a way of life.'*

Her **P7 colleague** reported that her class were *'becoming increasingly aware of good questioning'*, and that she had reflected on her teaching.

In the secondary, the **Science** teacher found that she was able to work *'at a very high level'* with her classes, doing some work that would *'normally be done in S3'*. The project also allowed her to reflect on her teaching.

The **English department** found that disseminating the methodology of formative assessment to departmental colleagues met with positive feedback, and that involvement with the project allowed them to develop the talk component of the S1 syllabus. One department member found the project *'interesting to challenge [her] own teaching strategies'*.

The **pupils**, too, identified benefits. One primary pupil liked traffic lighting because it let her show *'what I understand, instead of just saying I do when I don't'*, and many pupils reported that discussion and feedback let them feel more comfortable, because *'... if you're not sure if your answer is right ...it's easier to discuss with a friend first'*. Another pupil suggested that *'if teacher explains and you don't understand your friends may explain it easier'*.

Pupils also took more responsibility for their own learning. Children who had indicated 'red' were able to show 'amber' or 'green' when they were ready to move on to independent work. *'The children felt this was a huge benefit'*. Pupils also became more active learners, more able to recognise what they could and could not do, and, although some did not *'feel more confident about the particular subject, ...[they] feel more confident to answer in class and express their opinion.'*

Secondary pupils also saw the benefits⁹, and found no problem using techniques such as traffic lighting and the variation of this which was used in Science, where pupils had to go to a part of the laboratory *'which had similar meanings to the colours.'* Confidence among pupils was also raised. *'I don't feel scared about expressing myself to others', 'I have interacted more with other people than I did before and I am more confident'*.

In the secondary, too, pupils were able to take more responsibility for their learning *'because you know what to improve on.'*

The project also let staff across the sectors *'put faces to names'*. One of the Deputy Head Teachers reported that not only had liaison across the schools been *'very much improved'*, she felt that she had been *'working with authority personnel'*, and that the project had *'improved the working relationship with the Education Officer.'* There was also a perception that the relationship with the authority representatives had become less formal, and that it was easier to *'chat away and seek advice'*.

⁸ See appendix 3 for staff questionnaire

⁹ See appendix 4 for secondary pupil questionnaire

For the secondary school librarians involved in the project, there had been many problems, ranging from changes in staff and classes involved, to having the library stock impounded till after Christmas 2003. Despite this, the staff supported the project well. They considered they had *'a better awareness of teaching methods to improve literacy.'* One of the longer term benefits for them has been *'to find resources which can be used, not just for this project, but also for the benefit of other pupils in the school in the future.'*

b) The Impact of the Project – Assessment Evidence

Traditional assessment methods have also provided interesting results.

The primary school chose to use **'old' national tests** to confirm the levels at which their pupils were working. Not only did the P6 and P7 pupils involved in the project complete their expected levels, all pupils did so comfortably, and indeed a number of pupils exceeded expectations. A group of P6 pupils achieved level E in reading. In the P7 class, all pupils attained writing and reading at level C or above. One group of pupils was working on level F reading, outstanding results for this group.

NFER-Nelson Progress in English tests were carried out at the start and the end of the project, as already mentioned. This provided a number of interesting results.

In **Primary 6**, the class who had been part of the project, and therefore using some formative assessment techniques, recorded better average scores than the control class of P6, who had been taught using 'conventional' methods, on the second test. In questions of grammar and style, both boys and girls in the class using formative assessment performed better than either group in the control class, as was also seen in questions relating to understanding the whole text. The boys in the class using formative assessment outperformed all other groups in questions about context. Almost every pupil made identifiable progress, as we might expect, during the period between the two assessments. Pupils involved in the class using formative assessment, however, showed greater average increases, particularly those pupils who had originally scored around or below the median standard mark.

In **Primary 7**, the boys in the project class outperformed the girls in the class, and scored a higher average mark than boys in one of the other P7 classes in all test areas apart from spelling, on the second test. Again, almost every pupil made identifiable progress during the period between the two assessments. As with the P6 class, pupils from all ability levels showed progress.

Across the primary school, in which 33% of pupils are eligible for free school meals, the results show that the project group's attainment soared over the time of the project, and, on the second test, was greater than the national average in almost every measure. This is an outstanding result.

The teacher of the P6 involved in our project has continued to teach them in the current session (2004 – 2005), and continues to use formative assessment techniques. The P7 teacher is teaching the 'control' P6 class, again using formative assessment. The intention is to retest both classes, again using nfer-Nelson Progress in English tests, in May 2005. The results will allow us to chart and evaluate the impact of the teaching methods put in place across two years (P6 and P7) for our original P6.

In the **secondary English department**, the whole class involved in the project performed better **overall** in the final assessment than the control group who were also tested. However, there was no appreciable difference in their response to questions about grammar and style. Neither grammar nor style was among the aims of the lessons taught during the project. There were more girls than boys in each class, but even so, boys in the project class significantly outperformed the class average in questions of whole text understanding, use of language in context, and figurative language. By contrast, boys in the control group performed least well of all the groups, and significantly less well than the girls in the control group. Girls in the project class performed better than the whole class average in spelling.

Time had also been spent in group work as well as individual work during the project. At this stage, we can only speculate how far the re-ordering of assessment criteria, with its attendant need to discuss and fully understand criteria, the use of peer assessment, and the closely linked individual research, contributed to these results. It would also be interesting to continue to track the progress of the boys, whose progress has been marked, who have been involved in the project.

The **S1 mixed ability science section** involved in the project returned the highest average score for all sections in the project period, and had the greatest predicted number of Credit or Credit General passes at Standard Grade.

It has been more difficult to assess the changes in attainment using the nfer-Nelson tests within the secondary school, as we were unable to retest all the original cohort. Of pupils in the project and control classes who did complete the second assessment, a number who had started secondary school with National Test grades less than E for Reading or Writing have, as evidenced by the Progress in English nfer-Nelson assessment, improved dramatically in areas of inference and deduction, understanding language in context and style.

c) The Impact of the Project – Other Positive Outcomes

The additions to the authority's millennium schools web site, (see footnote 7) have already been mentioned.

Another lasting legacy of the work concerned the primary school. There were a number of practical problems in taking the primary school pupils to the local public library. Through the involvement of the Senior Librarian, Young People's Services, in the project, it has been possible to arrange for a mobile library van to call at the primary school once a fortnight. This service continues to be an enormous success, not only among the pupils, but also among staff at the primary, who are also using the service. Yet another 'bridge' has been built.

As well as the above, a huge reservoir of goodwill among those involved, and across the sectors, was built up. This is continuing and being built on through our plans for the current session (2004 – 2005).

6. What have we gained?

Many teachers pay lip service to the idea that Reading, Writing, Talking and Listening are interlinked disciplines. The teaching and learning associated with our project have forcibly reminded all concerned of the fundamental and intrinsic links among all four. The evolution of the project has forced all of us to analyse and reflect on the realisation that effective communication requires all of these.

That said, we recognise that there have been benefits for both staff and pupils.

In the **primary school**, the class teachers involved in the project led an in-service session with their colleagues. The primary school is now embedding formative assessment from P1 to P7, taking care to ensure consistency of approach in techniques such as traffic lights, WALT and WILF, and wait time. Video clips of the original classes involved in our project have been employed as teaching aids. In additions, we have interviewed a number of staff who are new to the techniques this session, and intend to repeat this towards the end of the session. We hope that their comments will be of use to others as they, too, begin to use formative assessment.

Similar **teaching techniques** for aspects of language have been put in place in the upper primary and lower secondary stages. This will provide continuity for pupils across P7 – S1, and ease one concern about transition.

In language, the need for a progressive programme to teach peer assessment skills from P1 – S2 has been identified, as well as the need for primary and secondary language staff to meet to discuss and create this. We are well aware that this has wider implications than the

schools currently involved in the project, and anticipate that the roll-out programme within the cluster and authority will address this.

Discussions on texts that are used in each sector, particularly for primary pupils who have passed level E Reading, have begun. The PT of English has met the Deputy Head of the Primary school to discuss and agree on those aspects of early level F Reading work that would be best suited to the primary syllabus.

Staff have reflected and refocused on existing sound classroom practice, and learned new teaching techniques which are well on the way to being embedded in their teaching. In addition, they have built critical friendships across the sectors, and have a better awareness of the national picture.

Pupils have gained confidence in their ability, peers have re-assessed their view of each other, and pupils have taken more responsibility for their learning, at critical points of their school life.

Staff and pupils are more aware of the skills needed for effective learning and communication.

7. What next?

There are many opportunities to develop formative assessment techniques more widely within the authority, building on the experience of the two schools involved in the project.

We have shared our experiences with other colleagues in the authority, including probationers and Head Teachers. At the in-service day in February 2005, we plan to work with the other primary schools in the Musselburgh cluster, not only to share our experiences and encourage them to embed formative assessment in their own work, but also to consider how this may contribute to the transition period for P7 pupils. There are also plans to develop close links between the secondary and the primaries through staff-to-staff meetings.

There are further plans to work with our colleagues who were initially part of the Assessment is for Learning programme. In this way, we will build another bridge to other clusters, and, through sharing our experiences, develop our reflective practices, while helping develop our skills.

The secondary school has continued to develop work on learning styles with the 2004 intake. The increase in self-esteem among pupils, including the most vulnerable, has been remarked on by every member of staff involved. Though this cannot be measured on paper, no one is in any doubt that this has been a significant achievement. The challenge is to maintain this in the coming sessions, and develop and embed an on-going programme to continue to enhance self-esteem.

8. What will be our final measure of success?

For pupils – not just showing improvements on paper, but taking more responsibility for their learning across stages and subjects.

For staff – embedding formative assessment into practice till it is an automatic tool in the teaching armoury.

For the curriculum – to see similar teaching techniques used in the primary and early secondary sectors, and to have more understanding and integration of curriculum content and progression across the sectors.

For schools – to build lasting bridges between neighbourhood schools and their secondary partners.

For the authority – to see attainment of all pupils rise as a result of the techniques put in place.

Finally,

We have achieved success in our project, despite the upheavals and difficulties of the early months. The impact of formative assessment in helping pupils develop analytical and reflective skills, and the positive effects these have had on pupils' learning in all aspects of communication, in several areas of the curriculum, has been acknowledged. Now, as the project moves forward from the classrooms of our original staff members to a wider audience across the authority, and the practice of the techniques employed becomes more firmly embedded, we wish to record our thanks for the professionalism and determination to succeed of the staff involved. It is these qualities that we are certain will carry forward the lessons of this project.

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