

Action Research project

Context.

I undertook this research project as part of a term's sabbatical leave in Term 3 2011, from my position as principal of Piopio Primary School, a rural primary school. The school's major achievement focus for 2010 and 2011 was writing and the research topic was chosen as a part of that focus. Six of the current teaching staff had attended a Gaye Byer's writing workshop in April 2011 and Gaye's programme is the basis of our school's writing programme.

Statement and origin of the Research Focus.

A cohort of twenty-two Year 4, 80% and Year 5, 78%, senior boys' writing achievement in relation to National Standards had been identified in our July 2011 report to the Board of Trustees as being 'Well Below' or 'Below' End of Year' Standard.

Through my class visits and observations, and brief professional reading, I had hypothesised that an increase in the type and quality of the feedback provided to boys about their writing would lift their achievement to the school's goal of having 70% of them writing 'At or Above the End of Year Standard' by the end of 2011. To test this hypothesis, my research was framed as below.

My aims were to:

- Research feedback as a concept,
- To find out what principles of feedback, when implemented, could make a difference to boys' writing.
- To present these findings to the teachers of the underachieving boys, comparing current to ideal practice,
- Implement with the teachers changes to feedback and monitor the changes in the target boys writing over two terms.

The first two aims are the focus of this research project; the second two will follow on from it and the results will be written up, but are outside the timeframe of this project.

To keep the research manageable in the five week timeframe, I decided to structure my research on these focus questions: What? So what? Now what?

What?

What is feedback and how important is it?

What is the link to Quality Teaching?

What feedback will make a difference to boys writing?

So what does it mean?

Now what do we need to do?

Methods

I chose an Action research method as this method, combining as it does action and research, has as its outcome ‘ a form of disciplined inquiry, in which a personal attempt is made to understand, improve and reform practice’ Hopkins (1985: 32).

I carried out a literature search of leading NZ researchers who had written about feedback in general and writing feedback specifically, noting their research as it applied to my topic and summarizing it under the headings as shown above.

What?

1. What is feedback?

Feedback can be ‘ conceptualized as information provided by an agent (eg teacher, peer, book, parent, self, experience) regarding aspects of one’s performance or understanding’(Hattie and Timperley, 2007).

To have an instructional purpose, ‘ feedback needs to provide information specifically relating to the task or process of learning that fills a gap between what is understood and what is aimed to be understood’ (Hattie and Timperley, 2007). It must have a learning context and is ‘most powerful when it addresses faulty interpretations’ (Ibid).

Feedback has been shown to be more effective when it provides information on correct rather than incorrect responses and when it builds on changes. Most impact is had 'when goals are specific and challenging and task complexity low.'(Ibid).

The most effective forms of feedback provide cues or reinforcement to learners and are in the form of video, audio or computer-assisted instructional feedback.

Three focus questions to scaffold or guide, effective feedback are:

1. Where am I going? (What are the goals?)

Are they challenging and specific? Do they describe the success criteria?

Is there a classroom environment where there's shared goal-setting ?

2. How am I going? (What progress is being made towards the goal?)

Tests as a form of feedback often fail to provide feedback information.

3. Where to next? (What activities need to be undertaken to make better progress? The answer should not be "more" in the context of "more of what you are doing now").

How important is feedback to achievement?

In research terms, the effects of schooling on student achievement are given a decimal ranking, with the higher the number, the greater the effect on achievement. 'The average or typical effect of schooling is 0.40. Specific information on feedback in classrooms showed the average effect size to be 0.79, almost twice the average effect' (Hattie ,1999). This shows that the effect of feedback on achievement has a significant impact and is well-worth considering as an effect that can be changed by a change in teaching practice.

Peterson and Irving (2007) agree with Hattie and Timperley (2007) and added points relating to perceptions and time.

'Students need to know the learning objectives of the task and then how far they have fulfilled them' (Ibid); the 'Where am I going? How am I going?' links to the questions above.

'Students then need to know, in relation to the learning objective, what they could have achieved' (Ibid) Where to go next?

Peterson and Irving also suggest that ‘advice about spelling, handwriting and so on should not be mentioned for every piece of work, or students will be overloaded with information and focused on the same few criteria every time’(Ibid).

‘They (the learners-my emphasis) then need to be shown how to “close the gap” between current and desired performance. “Shown” in this context would ideally include an invitation to include the student’s perceptions and strategies’ (Ibid).

‘While a learning environment or task may be designed to facilitate student change on a given variable (e.g., feedback to enhance literacy skills), students’ and teachers’ conceptions will influence the way the task or environment are experienced’ (Ibid). Here again, the importance of whole-class climate where mistakes are seen as a part of learning, is emphasised. In that climate, feedback can be seen as a vital part of the learning process, for both children and teachers.

‘Finally, and most importantly, students need time to make the suggested improvement’(Ibid). As do teachers to their learning.

2. What is the link to Quality Teaching?

‘...findings from the related local and international evidence –based research indicate that **‘what matters most’** is **‘quality teaching’**, (emphasis mine) (Ministry of Education, 2010)

Quality teaching involves, among other things, assessment and when assessment takes the form of effective and formative feedback it is one of the most influential elements of quality teaching, as shown by Hattie’s research quoted earlier.

Crooks (1998) found that for assessment to improve learning, students need:

‘Clear learning outcomes, specific, constructive and regular feedback, a strong sense of involvement in the assessment process and the opportunity to set and achieve specific learning goals.’

Black and William (1998a, b) found that for assessment to improve learning, students need: ‘Effective feedback, to be actively involved in their own learning and assessment.’

‘Teachers who adjust their teaching to take account of the results of assessment (teachers need to know about progressions and students’ learning needs) and who ensure that assessment practices impact positively on students’ motivation’(Ibid 1998).

Feedback as a part of assessment clearly has links to quality teaching, but comes second after effective instruction. Classroom climate is crucial.

Our aim as teachers is grow learners who are ‘ confident, connected, actively-involved, life-long learners,(NZ Curriculum, 2007) and feedback is a vital part of quality teaching to enable that to happen.

‘Students who understand learning goals and either receive or self-generate feedback about their progress in reaching them are more successful learners than those who are not’ (LPDP, 2010 Chapter 5).

Self-regulated learners (SRL) -‘judge performance relative to goals, generate internal feedback about amounts and rate of progress towards goals, and adjust further action based on that feedback’.

-‘require sufficient cognitive maturity for individuals to set goals, be aware of and monitor their own learning processes’. Young learners will need guidance in this.

Quality teaching recognizes that feedback is a part of learning; that our aim is self-regulated learners but that aim is a process along which we must guide children and they will all be at differing stages along that path.

Modeling the type of feedback and setting the classroom climatic conditions for that to occur, is the teacher’s role. In a wider context, that climate needs to be modeled by school leadership as does the feedback on teachers’ teaching.

Zimmerman (2001) SRL emerges from ‘process of observation and emulation of a model..develops into self-control and self-regulation.’ Teachers could ‘foster self regulation... ‘by providing the model and the conditions to promote self-regulation strategies’.

The Case Study shown below reiterates these main ideas about self regulation and the feedback that relates to them. The main points are shown on bold.

Case 3. Teacher and student use of learning goals

<p>Source</p>	<p>Timperley, H., & Parr, J. (2009). What is this lesson about? Instructional processes and student understandings in writing classrooms. <i>Curriculum Journal</i>, 20 (1), pp. 43–60.</p>
<p>Introduction</p> <p><i>‘Effect size’ is a statistical measure of the impact of an intervention on an outcome. Hattieⁱ shows that the average yearly effect of teaching in New Zealand in reading, mathematics, and writing from year 4 to year 13 is $d = 0.35$. Effect sizes above 0.40 represent an improvement on business-as usual and effect sizes of $d = 0.60$ are considered large.</i></p>	<p>This case contrasts what does and does not work in two aspects of the teaching of writing: teacher use of learning goals and student access to success criteria. It exemplifies three of the most effective teaching practices identified across Hattie’sⁱⁱ meta-analyses: feedback ($d = 0.73$), teacher clarity ($d = 0.75$), and the scaffolding of student metacognitive strategiesⁱⁱⁱ ($d = 0.69$).</p> <p>The case shows the effective use of formative assessment to support student self-regulation and success in writing. In particular, it demonstrates that teachers need to explain learning goals clearly and ensure that students understand them. It also shows how teachers and students can work smarter rather than harder to make learning to write more enjoyable and successful.</p> <p>The case is not about good teachers; it is about good teaching practices.</p> <p>It features a literacy facilitator who worked effectively with two teachers whose practice was, initially, not supporting student success. This case shows how ineffective teaching can be dramatically transformed through the use of external expertise, collaborative inquiry and evidence to support teacher learning. The intervention resulted in significant improvements in student achievement in just four months.</p>
<p>Learners and learning context</p>	<p>The wider context was the writing lessons of 15 teachers teaching students from year 2 to year 8. This case:</p> <ul style="list-style-type: none"> • contrasts the teaching of three of those teachers: Teachers 1 and 2 (who did not share goals with students) and Teacher 15 (who did share goals with students); • illustrates the shifts made by Teachers 1 and 2. <p>The year levels for the classes that are the focus of this case were years 2-3 (Teacher 1), years 4-5 (Teacher 2) and years 3-4 (Teacher 15).</p> <p>Timperley and Parr gathered their baseline data by analysing the extent to which the lesson goals and success criteria were shared with, and understood by, the students. They found that despite the teachers’ beliefs that they were sharing the goals and criteria with their students, most of them were not actually doing this. Students were focused on lesson goals for more than half of the time in only seven out of the 15 classes. In four lessons, the lesson goals were never shared with the students.</p> <p>In two of the classes where the lesson goals were not shared with students, the teachers (Teachers 1 and 2) sought an intervention to help them change their teaching in ways that would foster self-regulated learning by students.</p>
<p>Outcomes</p>	<p>The achievement gains for the students of Teachers 1 and 2 across the four-month period (as assessed by asTTle) were dramatic, with an effect size of $d = 1.04$. Although the teachers selected lesson goals that focused on deeper features, achievement gains were just as great for surface features. Students also reported enjoying the lessons more when they understood the goals and success criteria.</p>
<p>Curriculum relevance^{iv}</p>	<p>Students learn to create meaning for themselves and others through writing. They need to write well in order to meet the demands of the curriculum. They also need to develop the competencies of thinking and managing self.</p>

The Quality Teaching Dimensions

<p>Outcomes focus</p> <p>Hua te ako, hua te ākonga</p> <p>Quality teaching is focused on valued outcomes and facilitates high standards for diverse learners.</p>	<p>Teacher 15 focused on specific valued student outcomes and engaged his students effectively in understanding and achieving these outcomes in the context of a task they enjoyed. The business-as-usual practices of most of the other teachers observed by the researchers did not translate a focus on valued student outcomes into action.</p> <p>This case describes what did and did not work in the teachers' communications about learning goals and the consequences of teachers' practices in terms of their teaching effectiveness. It then describes how Teachers 1 and 2 responded to targeted professional development by reorienting their practice to a stronger focus on outcomes.</p>
<h3>What worked</h3>	
<p>Assessment for learning</p> <p>He aromatawai, he akomatawai</p> <p>Teachers and students engage constructively in goal-oriented assessment.</p>	<p>Teacher 15 was teaching the fourth lesson in a series about writing an argument. In the background materials supplied to the researchers, he stated that his aims were:</p> <p style="padding-left: 40px;"><i>Arguments: Persuasive writing – main components of an argument. Opening statement and opinion. Reasons and examples to support. Sequencing from strongest to weakest.</i></p> <p>The topic for the argument was whether a loved story character, Greedy Cat, who was very overweight, should go on a diet. In a previous class, these students had worked with the teacher to establish a set of success criteria for writing an argument. The teacher displayed the agreed criteria on the board. They included:</p> <ul style="list-style-type: none"> • You need an opening statement that gives your opinion • Give reasons for your opinion and examples to support your reasons • Put your reasons in order from strongest to weakest. <p>The teacher began the lesson by checking that the students understood their purpose: to express an opinion with reasons and to organise arguments in a hierarchy. These are demanding, worthwhile instructional goals:</p> <p><i>Teacher: What are the main parts of an argument? The main things we were working on, [student's name]? One of them?</i></p> <p><i>Student 1: Make sure your opinion is what you want to say.</i></p> <p><i>Teacher: Say what you want to say, you write your opinion, [student's name]. What else?</i></p> <p><i>Student 2 You give your reasons.</i></p> <p><i>Teacher: What do we give reasons for?</i></p> <p><i>Student 2: So they know why or why not to agree with us or agree with [our opinion].</i></p> <p>Following the lesson, the researchers interviewed individual students and asked them to describe what effective persuasive writing looks like. All the students in Teacher 15's class referred to the criteria the class had agreed on.</p>
<p>Scaffolding</p> <p>Te ako poutama</p> <p>Pedagogy scaffolds, and provides appropriate feed forward and feedback on,</p>	<p>Teacher 15 provided feedback or feedforward on 16 occasions during the 45-minute lesson. In seven instances, his feedback connected to the learning goals. His students talked about the feedback the teacher gave them in terms of the deeper features of writing associated with those goals.</p> <p>The researchers explain how teaching facilitates student self-regulation: “as learners are scaffolded into gaining greater control of the ideas, they are increasingly able to guide, plan and monitor their own activities”.^v When students are clear about the goals, and when they have continuing access to those goals and clear information about what it would take to achieve them, they can keep checking and monitoring their own progress.</p> <p>Students' working memories cannot retain complex information or instructions without opportunities to revisit the details. This means that having the goals and success criteria written on the board (as well as discussed) is</p>

learning.	necessary to support student self-regulation. Scaffolding student self-regulation takes pressure off teachers while giving students greater control of their learning. Teachers can be less busy and more diagnostic in working out where further scaffolding is most needed.
<p>Quality teaching: Other aspects</p>	<p>While the focus of this case is on goal setting, teacher clarity, and effective scaffolding through feedback, the brief account of Teacher 15’s practice exemplifies many of the dimensions of effective teaching, for example:</p> <ul style="list-style-type: none"> • Through building the writing lesson on their reading of a familiar book, <i>Greedy Cat</i>, Teacher 15 made a connection to the students’ prior knowledge of a topic that interested them. • The potential for the students to work as a learning community, as they formulated their arguments, was enhanced by the fact that the reading was a shared experience and the students had developed their success criteria together. • The writing lesson also built upon the shared task history of the class (the fourth in the series of lessons), allowing opportunities for practice and for embedding the new learning. • The teacher’s use of a whole-class discussion followed by an individual task activity also supported the students’ opportunity to learn.
What did not work	
<p>Assessment for learning</p> <p>He aromatawai, he akomatawai</p> <p>Teachers and students engage constructively in goal-oriented assessment.</p>	<p>Teacher 1’s intended goal for the lesson was “to help children to start their stories using an interesting beginning”, but this goal was never communicated to the students. In the task introduction, she gave a general instruction for them to write the first sentence and to write about an experience of being lost. During the lesson, individual teacher assistance focused on prompting content related to the topic. When interviewed about what they were trying to achieve, the students did not know what the lesson goal was and gave general responses (for example, “learning to write good stories”) or responses about the surface features of their writing, such as punctuation and spelling.</p> <p>Teacher 2’s intended goal for the lesson was “Using English matrices from NZ curriculum exemplars ‘Audience purpose’ (impact and voice) at Levels 1iii, 2 & 3”. These goals were never shared or clarified with the students. Rather, in the task introduction, lesson activities, and individual assistance, the teacher focused in a general way on students generating content. When interviewed, these students also gave general responses or responses about the surface features of their writing, which had no relationship to the concepts of ‘audience’, ‘purpose’, ‘impact’, or ‘voice’.</p> <p>Although these teachers may have intended to have high-quality goals, in reality the students attended to surface features of the activity rather than to demanding instructional goals.</p>
<p>Scaffolding</p> <p>Te ako poutama</p> <p>Pedagogy scaffolds, and provides appropriate feed forward and feedback on, learning.</p>	<p>After the students started to write, Teacher 1 instructed them to “think of an interesting beginning to your story”. In her individual assistance to students, she suggested that the story “should start with a bang” and made three specific wording suggestions for starting. She also suggested that two students should use some speech in their first sentence. She advised two others that they should not start with “once upon a time” because that was for fairy tales. Most feedback she gave was about the mechanics of the writing, with some general praise. When asked about the kind of feedback they received, Teacher 1’s students explained that the teacher “doesn’t talk to us about improving work”. They explained that good writing was neat and had a title, capital letters, and full stops.</p> <p>Teacher 2 provided lots of general praise (on ten occasions during the lesson) and feedback about the mechanics of writing (six instances), with one further comment about words used. The students explained that the feedback was about mechanics and the inclusion of content.</p>
<p>Teacher knowledge and inquiry</p> <p>Te mōhio o te kaiako, te tikanga uiui</p> <p>Teachers work smarter, not harder, through the</p>	<p>When Teachers 1 and 2 were given feedback about how the students understood their lessons, they were surprised. They had believed that what the students had to learn was transparent and that they had been goal-focused. They now realised that the students kept getting conflicting messages.</p> <p>The observational data and feedback served as a powerful catalyst for change. Both teachers asked for assistance to change their practice.</p> <p>A literacy facilitator with relevant expertise provided targeted professional development. Both teachers went through a cyclical change process in which they set and monitored progress against two sets of goals:</p> <ul style="list-style-type: none"> • The teachers’ goal for their students was that they would understand the purpose and success criteria for writing lessons. • The teachers’ professional learning goal was to better scaffold student self-regulation. This goal was closely linked to the student learning goal.

use of evidence for continuous improvement.	<p>The teachers then started observing each other, giving each other feedback on progress, and checking their students' understanding regularly.</p> <p>The researchers went back four months later to observe the lessons and interview the students. They found that the students were much clearer about the goals and mastery criteria and were focused on the deeper features of the writing. Both the students and their teachers spontaneously commented that they were enjoying their writing more.</p> <p>For the teachers, there were still some challenges ahead in providing more effective feedback rather than non-specific praise. However, the achievement gains from the four-month period as assessed by asTTle were $d = 1.04$.</p>
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Teacher knowledge: Effective goals	<p>Timperley and Parr^{vi} reviewed evidence about the qualities of goals and feedback that are most likely to foster self-regulated learning. Eventually, self-regulated learners formulate their own goals. “[Mastery learning] involves the learner having an understanding of what success in that task might look like and receiving instruction and feedback directly related to it” (p. 45).</p>	
	Effective goals	Ineffective goals
	<p>Clear goals with associated criteria or examples enable learners to judge their progress against the goal and give feedback to themselves.</p>	<p>Unclear goals are likely to result in students being unsure about their learning, constructing alternative goals, wasting time, and experiencing continuing confusion about what the task requires.</p>
	<p>Specific goals focus students' attention, develop greater commitment, and allow more directed feedback.^{vii}</p>	<p>General goals do not focus attention so are less useful for orienting feedback.</p>
	<p>‘Learning goals’ focus on understanding how to tackle new problems and learn new things.</p>	<p>‘Performance goals’ focus on grades and can lead to students focusing their attention on their ability and how they compare with others rather than on monitoring their personal progress.</p> <p>Performance goals can develop less effective questioning patterns and poorer problem-solving ability than learning goals.^{viii}</p>

Teacher knowledge: Effective feedback		
	<p>The quality of the information fed back to students by the teacher or other students is critical for learning. Timperley and Parr^{ix} reviewed qualities of feedback that are effective or ineffective in supporting self-regulated learning. In this case the focus was on teacher –student interaction and student self-regulation. Explicitly teaching students how to provide effective feedback to their peers can intensify supports for learning and increase the achievement of those both giving and receiving effective feedback^x.</p>	
	Effective feedback	Ineffective feedback
	<p>Task-related feedback supports the student to make progress with the task.</p>	<p>Feedback about the personal qualities of the learner invites a focus on social relationships rather than cognitive processes and can be detrimental to the achievement of learning goals.</p>
	<p>‘Process feedback’ that is cognitively oriented can help students identify cues that indicate progress towards particular goals, monitor task engagement, and assess the value of those cues in achieving task success.</p>	<p>‘Outcome feedback’ about whether a learner has an incorrect or correct response can be problematic. This kind of feedback alone may not provide sufficient information to guide a learner in how to improve and self-regulate their own learning.</p>
<p>Feedforward: The quality of the information given by the teacher is sufficient to support the student in</p>	<p>Feedback without support.</p>	

	using effective processes or strategies to make progress towards the goal.	Feedback about progress towards a goal that is not linked to a corrective strategy.
	Feedback for deep learning assists in understanding, strategy development, and self-regulation.	Feedback for minimal learning orients the learner to surface features alone rather than thoughtfulness, strategy use and self-regulation.
Other resources	<p>Robinson, V., Hohepa, M., & Lloyd C. (2009). <i>School leadership and student outcomes: Identifying what works and why: Best evidence synthesis iteration</i>. Wellington, New Zealand: Ministry of Education.</p> <p>Timperley, H., & Hattie, J. (2007). The power of feedback. <i>Review of Educational Research</i> 77 (1), pp. 81–102.</p> <p>Timperley, H., Parr, J., & Meissel, K., with O’Connell, P., Hulshosch, N., & Bland, M. (2010). Instructional leadership in action. In <i>Making a difference to student achievement in literacy: Final research report on the Literacy Professional Development Project</i>, chapter 4, pp. 42–92, Auckland: Report for the Ministry of Education by Uniservices, University of Auckland.</p> <p>Wiliam, D. (2010). The role of formative assessment in effective learning environments. In H. Dumont, D. Istance, & F. Benavides. <i>The nature of learning – using research to inspire practice</i>, chapter 6. Paris: OECD.</p> <p>The studies shared in this case emerged from the embedded research within the New Zealand Ministry of Education’s Literacy Professional Development Project. You can find out more from http://literacyonline.tki.org.nz</p>	

In summary, the most effective feedback to grow SRL is that which

- promotes self-monitoring, directing, and regulating activities; fostering autonomy, self-control, self-direction and self-discipline.
- Is linked to a corrective strategy
- Allows the learner to set reasonable goals and track performance in relation to their goals.

3. Is the feedback that needs to be provided to boys about their writing, different to that needed for girls?

Research from Raising Boys’ Achievement a study Funded by the Department for Education and Skills. Mike Younger and Molly Warrington et al(University of Cambridge Faculty of Education) DfES Research Report RR 63, makes these points in relation to what writing feedback works best for boys:

- Literacy learning is more effective when it’s holistic, where opportunities for reading, writing, speaking and listening are part of an integrated whole.
- There’s an understanding by teachers and children of how learning takes place; students understand they have different learning styles but need to be able to access different styles at different times.
- Paired and group talk, oral preparation for narrative, hot seating, drama and role-play, discuss story lines more explicitly, explore aspects of

character, plot, setting and vocabulary, write in role all, make a difference to boys' achievement.

- Variety of interactive classroom activities-‘fitness for purpose’
- Companionable writing with response partners and group work.
- Teachers are prepared to take risks to bring more creativity and variety to literacy.
- Integrated ICT use –quality presentation more easily achieved drafts and amended more easily.
- Little evidence to support that dominant learning styles differ from that of girls
- Target or goal-setting is successful when there is a mutual understanding, shared commitment, common belief and conviction in system, within a school staff.
- Teachers need regular time and support to set targets, professional dialogue about individual child learning.
- If mentoring is suggested, the mentor must be credible to individuals, collaborative and supportive,

This research makes some clear guidelines to approaches that will work not only for boys' writing, but also for learning in general. To be effective, they need to part of a whole-school approach to learning.

Other whole school approaches to boys' learning that worked included: Principals acknowledging there was underachievement and using familiar curricular activities creatively and imaginatively to target it.

Teachers were willing to take risks to engage individual children where they actively supported them to make choices and to achieve success.

Staff were committed to create opportunities to give children space to express their feelings and emotions.

Pupils offered challenge and activities they could individually excel in.

These suggestions refer to pedagogy that characterizes quality teaching and therefore what works for boys will work as well for girls. The quality of the feedback will make the difference.

So what?

Knowing about feedback and what works, its links to quality teaching, is not enough in itself to make positive changes to learning. There needs to be a

school- wide commitment to quality teaching and teacher learning, through the inquiry approach as outlined below.

The Literacy Professional Development Project (LPDP) has shown that when systematic self-monitoring is embedded within a professional learning initiative, teachers can be supported to develop the specific knowledge and skills they need to achieve the literacy outcomes they want for their students.

By linking inquiry into student learning to teacher learning, teachers can gain an understanding of what it is they need to learn to improve outcomes for students and have a compelling reason to engage. The development of pedagogical content knowledge is contextualised in a specific problem. Possibly its most powerful element, however, is the process of checking whether any changes in practice are having the desired impact on valued student outcomes (LPDP Ch 5).

Now what?

The research quoted above shows positive links between feedback and achievement. I believe that once teachers understand the principles involved, are prepared to model and apply them, with support, to their learners, that not only boys but all children's learning will benefit.

Quality teaching principles apply to all curriculum areas and to all learning. The principles of feedback as shown above, have the potential to make a positive difference not only to children's learning but also to teachers as they learn about their teaching; the inquiry approach.

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