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Pupil commentary on assessment for learning

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This article draws on data generated through interviews with Years 7 to 10 pupils in New Zealand to propose that pupils experience assessment for learning as embedded in, and accomplished through, interactions with peers and teachers. Pupil commentary indicated they perceived assessment for learning as having cognitive, social relationship and affective purposes and consequences. Pupils used a range of criteria to assess their learning. Pupils with learning goals viewed assessment for learning as a joint teacher—pupil responsibility. They expressed a preference for teacher feedback in the form of suggestions because these maintained an active role for them in making sense of ideas. Pupils with performance goals intimated they viewed assessment as a teacher's sole responsibility. They preferred feedback on how to complete tasks. A lack of mutual trust and respect was said to lead pupils to limit the disclosure of their ideas. Overall, pupils intimated that they experience assessment for learning as a complex activity in which they are active and intentional participants.

Keywords: assessment for learning; pupils' views; teacher-pupil interactions

Introduction

There is increasing agreement that assessment for learning or formative assessment is an essential feature of classroom teaching and learning and that its development can raise achievement (Black & Wiliam, 1998). Assessment for learning may be distinguished from other forms of assessment by its purposes: the priority is on enhancing rather than measuring learning. Assessment for learning becomes formative when information about learning is used by teachers and pupils to modify or adapt the teaching and learning activities in which they are engaged. In Sadler's (1989) terms formative assessment is concerned with how judgements about the quality of pupil responses can be used to shape and improve pupil competence by short-circuiting the randomness and inefficiency of trial and error learning. Within Sadler's definition, the formative shaping and improving of a pupil's competence means closing a gap between their actual level of competence and a reference or

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desired level. As teachers and pupils learn to recognize a fine performance feedback provides a means for bridging the gap between this and the pupil's current performance. Action by the pupil to close the gap is essential: pupil monitoring or self-assessment is the ultimate aim of feedback and formative assessment. Such action requires that pupils share and value teacher goals and criteria for success and that they are willing and able to take action in pursuit of these goals. Despite the need for active pupil participation, very little is known about pupil perceptions and experiences of assessment for learning. This article adopts a socio-cultural framework to provide a first step towards addressing this gap.

Formative assessment in practice

Current research and development have focused on explaining and extending teacher formative assessment practice, but as yet none of these research studies has reported directly on pupil perceptions. There is, however, an extensive body of research pertinent to the key elements of active pupil participation in formative assessment.

Pupil classroom goals

Formative assessment relies on pupil understanding of teacher learning and task goals, but this can be problematic. Classroom research indicates that pupils are motivated to achieve social as well as academic goals and that these are often intertwined. In terms of social goals, pupils work to develop positive social identities and to maintain and establish interpersonal relationships with peers and teachers (Juvonen & Wentzel, 1996). With respect to pupil achievement motivation, Dweck (1986) identified two broad goals that she termed 'performance' and 'learning'. Pupils with performance goals are generally motivated to complete tasks so they obtain good marks and look competent in comparison with their peers. They tend to avoid taking risks and have a fixed view of their intelligence. In contrast, pupils with learning goals are motivated by the desire to understand. They are more likely to have a flexible view of their intelligence and to view effort as helpful. Dweck makes the point that pupil goal orientations are not fixed, but can be changed by the way teacher feedback is given.

Pupil self-assessment criteria

Pupil formative self-assessment, aligned with teacher goals, requires that they are able to assess their learning in relation to the teacher goals. Research in science classrooms has consistently found that pupils use a range of criteria to evaluate their ideas, some of which are context specific and include the need for social agreement. The various reasons pupils have for adjudicating between explanations include: their acceptance of the authority of the teacher, text or peer, as the 'final warrant of viability'; their testing of the coherence of their explanation in comparison with other knowledge claims; and their testing of the ability of their explanation to predict what happens in a

practical situation (<u>Driver et al.</u>, 1996). The criteria pupils use are important because they also influence their approach to learning. The use of an external warrant tends to disempower pupils with respect to making sense of science themselves. This said, pupil action on the basis of formative self-assessment is still crucial.

Pupil response to feedback

While it is generally agreed that praise, grades and marks do not serve a formative function, because they lack the information a pupil needs to move their learning forward, the efficacy of teacher feedback depends on more than its informational content. Pupil perceptions of self as learner, about learning itself and pupil commitment to a particular idea, influence what feedback is attended to (Kluger & DeNisi, 1996; Black & Wiliam, 1998). Tunstall & Gipps (1996) indicate that pupils as young as seven and eight are sensitive to the distinction between teacher 'evaluative' and 'descriptive' feedback. When feedback is evaluative, rather than informational, and the judgement is that the pupil is 'not good', then it appears that most pupils lose motivation and consign themselves to the 'not good' category. If feedback is informational, pupils are more likely to use it to confirm their self-efficacy as learners and as a guide for future learning. Tunstall & Gipps concluded that, while teacher feedback can serve to specify and construct both attainment and improvement, it is through the mutual construction of achievement and improvement that a pupil can move from recipient to active participant in the process of formative assessment.

Classroom interactions

The literature on routine teacher–pupil classroom interactions provides an insight into possible pupil experience of, and participation in, assessment for learning. In particular, it seems that classroom interactions such as the typical sequence of teacher question, pupil response and teacher evaluation, carry meaning about pupil—teacher relationships as well as content (Lemke, 1990). Similarly, the language of teacher questions not only impacts on pupil interpretations and responses, it also communicates information about teacher authority over knowledge. Alongside this, the reasons pupils may have for asking questions are varied and include being the outcome of learned helplessness (Dweck, 1986), and as a form of help-seeking that utilizes the resources in their environment (Newman & Schwager, 1995). Not only this, research indicates pupils may act to limit the disclosure of their thinking through questioning because of a concern that peers and teachers might not listen to or support them, and their questions might pose a threat to their relationships by revealing a lack of understanding (Harter, 1996).

The wider impact of classroom assessment

Crooks (1988) provides compelling evidence that the impact of classroom assessment extends beyond an effect on what and how pupils learn, to influence their motivation,

self-esteem and confidence. More recently, research by Filer (1993) provided detailed evidence that ongoing informal teacher assessment impacts on whether or not individual pupils are judged as capable and competent. It seems that assessment can impact on pupils' sense of themselves as learners in ways that shape their social construction as competent (Gipps, 1999), and on pupils' relationships with peers, teachers and settings (McGinn & Roth, 1998). For pupils it seems that assessment is both a social process and a social product (Filer, 1995).

Connecting to a socio-cultural perspective

Current formulations of formative assessment are consonant with behaviourist and constructivist views of learning, but in recent times the suggestion has been that socio-cultural views of learning may be more efficacious in explaining classroom teaching, learning and assessment (Gipps, 1999). From a socio-cultural perspective, learning revolves around issues of belonging and the transformation of participation and identity (Wenger, 1998). Knowledge is a matter of competence with respect to those activities valued by the social group of which one is a part. Seen in this way, methods of assessment are simply practices which develop patterns of participation that subsequently contribute to pupils' identities as learners and knowers. Pupils therefore have an active role in assessment as people who can 'negotiate, shape and reflect on their participation and non-participation' (Boaler & Greeno, 2000, p. 173). Attention to pupil perspectives and experiences of formative assessment are therefore crucial to any understanding of how assessment for learning is and might be accomplished in practice.

Methods

The pupil data reported here were generated during the Learning in Science (Assessment) project (Cowie, 2000; Bell & Cowie, 2001). The research used an interpretive research methodology (Erickson, 1998), and involved ten Years 7-10 teachers of science and one of their classes in each case, a total of ten classes. In the first phase of the project, the ten teachers and thirty-one of their pupils (at least three from each class) were interviewed to ascertain their views of formative assessment. For the pupils this information was sought by asking how they decided they had learned something, what their teachers did to find out about and help with their learning, and what they did when they became 'stuck' or judged they did not understand. Pupil responses signalled that pupil-teacher interactions played an important role in this process. The second phase of the project involved an in-depth exploration into the nature of the classroom assessment practices that supported learning. Each class was observed throughout a science unit, a time of three to five weeks. The teachers and seventy-five pupils, at least six pupils from each class, were interviewed after lessons to generate information on their perceptions and experiences of how the teachers had found out about and responded to pupil learning, and pupils' wider experiences of assessment during a lesson. Pupils were

interviewed by themselves or as a group, depending on their preference. Over half the pupils were interviewed more than once. The pupils commented on the lesson, often linking what had happened with past experiences, making more general (usually negative) statements about teacher assessment practices, and describing the experiences of parents and siblings.

In this article, observational and pupil interview data have been combined to scope the ways pupils perceived their engagement in assessment for learning. Examples are presented to illustrate the range in experiences but no attempt is made here to argue that responses are age or gender related. The trustworthiness of the data and data interpretation presented here was ensured through prolonged engagement in the classroom and pupil checking of the initial analyses (Cowie, 2000). Feedback from pupils highlighted the need for a greater emphasis on the role of language and respect in the assessment process.

The findings

A number of broad themes emerged from the classroom observations and pupil interviews. This article concentrates on four: pupil perceptions of assessment as embedded in, and accomplished through, routine classroom interactions; pupil perceptions of the value of teacher feedback; pupils as active and intentional participants in formative self-assessment; and pupil experience of assessment as having cognitive, affective and social purposes and consequences.

Pupil perceptions of assessment as embedded in routine classroom interactions

In the first phase of the project, pupils were asked how their teachers found out about their learning. Twenty-five of the thirty-one pupils, while they identified tests and assignments as teacher assessment activities, reported teachers 'found out about and helped them with their learning' by talking with and questioning them, by observing them, and by reading and commenting on their bookwork. One pupil explained:

They peer over your shoulder. ... They would say 'Good' or 'What does that mean?' 'cause sometimes you could just write it down and don't know what it means ... if you don't know they say 'Come and tell me when you know what it means'. And if you don't go and tell them they say 'So and so, do you know what this means?' (Girl, Year 8)

When they were interviewed after a science lesson in the second phase of the study, pupils also identified these sorts of interactions as occasions for teacher assessment. They indicated that teachers provided them with timely and relevant feedback during these informal interactions:

She came around and looked at everyone's work and asked if they did understand and perhaps said 'Oh well, maybe if you tried it this way or that way it may work better' or 'Have you tried doing this' [Yeah] or 'Maybe you need a few more different pens'. (Girl, Year 10)

The pupils were emphatic their teacher had not assessed their thinking if he or she had not 'come around' and spoken with them during a lesson.

Researcher: Do you think the teacher found out anything about your thinking today?

Pupil: Not really. She never really came around to us. (Boy, Year 10)

They reported, and it was observed, that pupils used the occasions when teachers 'came around' to ask for clarification of task instructions, confirmation their ideas were correct, and for help to complete tasks and make sense of ideas. Pupils were unanimous in their desire for more opportunities for this sort of semi-private interaction with their teachers.

Pupil perceptions of teacher feedback

Pupils in both phases of the study indicated that evaluative comments such as 'excellent', 'very good' and 'well done', and grades and ticks or crosses were of limited help in moving forward their learning. They could, however, serve to enhance motivation and persistence; as one pupil confided in an after-lesson interview: 'Comments like well done, keep it up, make some pupils real happy and they'll try to do it again.' The recommendation was that teachers explain why work was very good, and not excellent, or good and not very good, in a manner consistent with what constitutes formative feedback. And, as might be expected, teacher statements and written comments such as 'That's not right' and 'Do it this way' were said to make pupils 'feel stink' and 'useless' and so undermine pupils' views of themselves as capable learners, as the following pupil explained:

Because when they say 'You're wrong', or 'That's not right' or 'Don't do that' or 'Do it this way', sort of, it makes you think, 'Oh, OK, I'm stink. I'm just useless at it sort of thing'... if you get them to say like 'How do you think you could help this?'... you think you can do it. (Girl, Year 10)

This form of feedback was also said to impact negatively on pupil-teacher relationships. In particular, all sixteen of the Year 10 pupils involved in the lesson observations described this practice as 'rude' or 'a put down', indicating it undermined their inclination to interact with a teacher.

Pupil consensus was that teacher feedback, provided during relatively private one-to-one or one-to-group interactions, was particularly useful. The reason given was that pupils themselves were more explicit about what they did not understand and so the teacher had a better appreciation of their 'level of understanding' and could 'target problem areas'.

An important aspect of helpful individual feedback from 'favourite teachers', those that pupils 'got along with', was that the feedback was in a language pupils understood. One pupil commended her teacher for using 'plain English' in talking with her. The pupil, who described how she had asked the teacher not to use 'big words', summed up the impact of the language of teacher feedback:

She's [the teacher] saying these big words and like, like she was talking to Brian [another pupil in the class]. And she said all these big words to him and then I asked her and she started saying all these big words to me. And I said put it in simpler words; everyone's different. (Girl, Year 10)

In both instances, it was the teacher's sensitivity in using language that could be understood by the individual pupil that was important. The pupils were aware that peers were able to use and understand more 'sciency' language and appreciated teachers who tailored their language to what they could understand.

A distinction was identified in the feedback commended by pupils, depending on whether they discussed the lesson preceding the interview as an occasion for task completion or an attempt to understand ideas. Pupils who talked about, and were observed, having asked questions to help them understand ideas asserted they preferred feedback in the form of suggestions, because suggestions supported their active engagement with ideas, both their own and those proposed by the teacher. A boy explained that 'suggestions are still making us think'; and a girl pointed out that suggestions could be 'added' into pupils' own ideas to 'give a different way' and in this way allowed pupils to 'decide for ourselves how'. The pupils intimated that suggestions communicated respect for them and their ideas, something that was important to them at a time when they were working on the edges of their understanding. Following on from this, four groups discussed assessment as a joint teacher-pupil responsibility. For example, three pupils raised the issue of responsibility after a lesson on atomic structure. They had not understood the idea, but none of them had asked 'What does this mean?' They pointed out this happened in other classes and commented that such lack of pupil action was problematic because 'teachers can't read pupils' minds'. It was for this reason they considered that both teachers and pupils had responsibilities within assessment for learning, albeit different ones.

It is pupils' responsibility to let teachers know if they don't understand and teachers' responsibility to help pupils. (Girl, Year 8)

In contrast, pupils who indicated they had been focused on completing the set task said they had appreciated being helped to set up equipment and complete tasks, but they did not like teachers to probe for understanding.

I hate it when you ask how to do something and they ask us questions back. They [teachers] should just tell us what to do so we can get on. (Boy, Year 10)

In particular, one group asserted they had been too busy working on the set task to seek out help. They implied it was a teacher responsibility to find out what pupils knew:

- *Pupil 1*: I don't think it should be our responsibility [to tell teachers we don't understand].
- Pupil 2: No, 'cause like, we've got our work to do, and like, we...
- *Pupil 1*: That should be theirs, they're the teachers.

Pupil 2: Yeah, and like, when they expect us to get our work up to date and if they want our books answered and everything, we sort of like, don't really have the time to sort of like, go up to them and say, 'I don't understand this.' (Girls, Year 10)

Pupil perceptions of who is responsible for assessment are important because, as many of them commented, a teacher cannot assess each pupil every lesson.

In line with their view of what might serve as an occasion for assessment, the pupils indicated that teacher time and attention communicated what and who was important to the teacher. The pupils were able to recall if the teacher had spoken to them, and often whether he or she had interacted with others in the class. Somewhat pragmatically, the Year 9 and 10 pupils commented that teachers allocated class time to, and formally tested, what was important to them. An indication of how sensitive some pupils were to the focus of teacher attention came from those pupils who reported that, if their teacher did other work while they were working, they concluded the task, and/or their understanding of it, were not important to the teacher.

Pupil 1: It is a bit annoying if she sets you work and then she [the teacher] goes off and doesn't really care what you do.

3 pupils: (Murmurs of agreement)

Pupil 1: And then it kind of gives you the impression that it is not that important. (Girls, Year 8)

If a teacher revisited ideas, the pupils appeared to consider this as an indication that the idea and their understanding of it were important. Four groups (ten pupils in all) discussed this point at length. In recommending teachers be prepared to reexplain ideas, one group of four boys asserted that if teachers were not prepared to help them understand ideas then 'There's not much point coming to class'. The comment was that teachers often focused on the need to cover material and 'rushed' through the curriculum, and no benefit was seen in this. The pupils interviewed at the beginning of the school year commented that they assessed teacher willingness to revisit ideas and explanations during the first few lessons and subsequently this assessment influenced their willingness to pursue ideas when they did not understand.

Pupil involvement in self-assessment

Current conceptualizations place pupil self-assessment at the heart of formative assessment. The comments and actions of the pupils in this study indicated that they, on their own initiative, can and do engage in formative self-assessment. During post-lesson interviews twenty-five pupils said they had asked questions when they did not understand. Seen this way, asking a question is an action arising from self-assessment.

Pupil 1: You've got to ask the teacher though, because the bits on ions and how you make [compounds], I really didn't understand that. I couldn't understand that. I asked the teacher over and over again with the whole group. And I ended up just forgetting about it

for a while and when the teacher wasn't busy I asked her to come and I finally got what it was.

Pupil 2: You were asking us for a while, weren't you. We weren't very helpful because . . . it's hard, sometimes, you don't know how to put it into words. (Girls, Year 9)

This quote indicates that the pupil was determined to understand the relationship between ions and compounds. In this case she persisted until she considered she did understand. The quote also highlights the role of peers in formative assessment, as help from peers was seen as important by all pupils, and as more useful than help from teachers by most.

I ask a friend ... if it was really, really important and none of my friends knew it I would ask the teacher but usually my friends do. (Girl, Year 10)

Being able to understand the language used in peer explanations and ease of access to timely help were the main reasons for this. Peers were said to explain ideas without becoming 'all technical and stuff'. More access to help from peers was recommended as the main way teachers could increase pupil opportunities for formative feedback.

And like sometimes you're not allowed to talk at class, so you don't learn as much. (Girl, Year 8)

You should be allowed to talk because they [peers] might understand it a little bit better than you do. (Boy, Year 10)

Pupil commentary on thoughts during whole-class discussions provided further evidence of active pupil engagement in self-assessment. In the second phase of the research five groups of pupils, twenty pupils in all, spontaneously described the criteria they had used to monitor their ideas during the lesson preceding the interview. These included coherence, agreement with an authority (the teacher, expert peers and/or the textbook) and the ability to explain empirical evidence. Of listening to a discussion on weight and mass two pupils said:

Pupil 1: You ... check your own [ideas] just to see if whether what you've said is clear enough or whether what they're saying is making more sense than yours. You might be thinking it their way but not being able to put it down on paper in the words that you want.

Pupil 2: Or that their way of thinking is better or clearer. (Girls, Year 8)

When asked if they found their peers or their teachers more persuasive, they said they could be influenced by a teacher's views (those of an authority), but claimed they prioritized the coherence of ideas.

Pupil 1: [We take] more notice of the teacher 'cos they have had more education than we have.

Pupil 2: They have been learning longer.

Pupil 1: Oh, I don't know.

- Pupil 2: But sometimes what the pupils are saying...
- Pupil 1: If their idea is reasonable...
- Pupil 2: Sometimes our arguments...
- Pupil 1: Sometimes what we are saying makes more sense to us. (Girls, Year 8)

The pupils indicated they employed a range of criteria when assessing ideas and sought consistency among these. One pupil explained how she considered whether a particular idea made more sense and/or was supported by more evidence.

Can I make sense of what they [teacher or pupil] are saying or does so and so's idea make more sense? And can I understand the idea when she puts it that way or when the teacher put it another way. ... More evidence that such-and-such was right or that experiment, this happened because of this. (Girl, Year 10)

Another pupil, as she reflected on an extended class discussion about whether solids expand with cold, provided a rich description that involved the interplay between the criteria of coherence, agreement with empirical evidence and agreement with authority. Initially, the pupil ignored her intuition that solids do not expand with the cold. She was swayed in this by the fact that pupils she viewed as 'good at science' were arguing for and providing evidence that solids expand in the cold. She gave considerable credence to recalled empirical evidence from a classroom experiment using a ball-and-ring and pupil out-of-class experiences:

B said 'I remember when I was in the South Island and it snowed heavily and the power lines were really down low. It was really cold.' That swayed or slightly convinced me because I thought, 'No, she wouldn't forget it, if they were down there, they were down there. It isn't something you make up or forget.' (Girl, Year 8)

However, her previous teacher's shocked reaction to the claim that solids expand with the cold was ultimately the most persuasive. This prompted the pupil, and the class, to reconsider the evidence, identify the flaw in their reasoning and reconstruct their explanation of the empirical evidence they had mustered.

I unconvinced myself [that solids expand with the cold] when I saw Mrs X's face. (Girl, Year 8)

Pupil involvement as having cognitive, social and affective purpose and consequences

Pupil commentary suggested that their involvement in assessment had cognitive, social and affective purposes and consequences. Pupil reports of why they asked questions, or not, illustrated this variety of purposes. As has already been pointed out, the pupils indicated they asked questions of the teacher as a formative action. They expressed a desire for more opportunities to ask questions of teachers, particularly in one-to-one situations. Academic learning was not, however, the only goal pupils pursued through questioning. Some pupils indicated they sought help to complete tasks to keep the teacher 'happy' and so they were not 'picked on'; that is, they

pursued the performance goal of task completion in order to maintain a positive relationship with the teacher. The need to maintain their relationship with the teacher was the reason fourteen pupils gave for the limited validity of teacher observation. They claimed pupils 'worked' and/or pretended to be able to do an activity when a teacher was observing them.

Some kids just sit there and they struggle with these questions and the teacher just thinks we're doing OK, 'cause they act like it. I know heaps of kids ... they pretend. (Girl, Year 8)

They said they 'pretended' to be listening and understanding during whole-class activities even when this was not the case:

And the teacher can't tell [if we understand] because some of us just sit like this [sitting up and paying attention] even if we do not understand it. Sometimes they can't tell just by looking at us if we understand it. (Boy, Year 10)

Nine pupils from three different classes claimed they collaborated as a class to ask 'really extended and intelligent' questions when they understood a topic, to minimize their workload without alienating the teacher. In addition, one group described how one of them had asked 'extended' questions of a teacher as a strategy to enhance the teacher's view of her. They intimated that this strategy derived from their perception that teachers prefer questions that 'move on' a topic and they indicated its use was not uncommon. They pointed out that this strategy required careful management as peers might come to label the questioner as a 'try-hard'.

Pupil comments that they refrained from asking questions as a formative action for fear of being labelled 'dumb', 'stupid' and/or 'slow' highlighted the overlap between the cognitive, affective and social consequences of pupil participation in assessment for learning. Their experience was that teachers could respond to them and/or their questions as if they had not been listening and/or were slow to understand. The pupils interpreted these teacher, and peer, reactions as communicating normative information about comparative (lack of) understanding and this had a negative impact on their relationships and feelings of self-efficacy. These reactions were, in their view, embarrassing and 'belittling'.

The worst thing is when you ask a question and they [the teacher] belittles you in front of everyone and goes 'Weren't you listening?' or 'Don't you understand that by now?' (Girl, Year 10)

This effect was amplified if the teacher's response triggered a similar response from the class.

Pupil 1: If the majority of the class do know what they are doing and you don't then it is really hard because it is like 'Ohhhh (sighs), I [the teacher] have to explain it again'...

Pupil 2: You feel a lot dumber.

Pupil 3: And all the other pupils look at you and you are going [shrinking down in her seat]. (Girls, Year 10)

Pupils were aware that their questions disclosed information on their thinking (Wiliam, 1992). Pupils sometimes limited the questions they asked when they were not sure of the response they might receive. Deciding whether to ask a question was dilemma driven. They worried that their questions would disclose a lack of understanding of ideas, as was explained by a pupil after a lesson on mass and weight. She said:

That is what it was like today. I kept on thinking that I would put up my hand [and ask a question] but then someone else would put up their hand and they would understand it perfectly and I thought 'Well, everyone else probably understands it and I don't', then I'd look stupid if I put up my hand and asked her [the teacher] to repeat it. She could have already gone over it ten times since I didn't understand it. I'd look like an X for making her explain it once again because everyone understood it. (Girl, Year 10)

This pupil did not realize that the pupils asking the questions had misunderstandings. Because of her perception of their academic expertise in relationship to herself, she began to doubt her own thinking. She prioritized her academic status and relationships with others over her desire to understand the idea of mass.

Another instance of the dilemmas pupils might face was illustrated by the teacher action of addressing the class in response to a private question. A pupil in a group had approached the teacher for help shortly after the teacher had set the class to work on a measuring task. In response to this pupil's question, the teacher, who was standing at the front of the room, stopped the class and gave an explanation. The pupil described the episode thus:

I went up to her and asked her exactly what we had to do because the thing about measuring the six cups and measuring the water wasn't very clear to me. I didn't know exactly what to do so I went up and asked her. She stopped the whole class just because of my problems. I didn't feel that great because I was right beside her [at the front of the class]. (Girl, Year 10)

This episode highlighted differences in teacher and pupil perceptions. The teacher had responded to the class as a way of providing information to all the pupils, including those who might not ask questions. The pupil considered the teacher had put her in a position of potential harm by disclosing her lack of understanding to her peers.

The pupils indicated that genuine assessment for learning was sustained by, and supportive of, relationships of respect and trust. They were emphatic they appreciated teachers 'who respected the way you want to learn' and who 'let you learn yourself' and that these teachers provided feedback in the form of suggestions. They reported that respect was a reciprocal activity; they respected teachers who respected them and so they were more likely to act on their feedback. Trust was related to respect, in that it was related to pupil experience of teacher and peer reactions as considerate and well intentioned. They formed impressions of a teacher's likely actions and reactions over time by monitoring whether she/he was 'happy to explain again' and 'from what you

hear from people'. This was a particular focus at the beginning of the school year, as the following pupils explained:

Pupil 1: In a way I kind of assessed Mrs Brown [a pseudonym]. It was the first lesson where we actually did something and it was interesting to see how she was going to go about it and talk to us. If she was prepared to explain it again to you and not just say it once. That's it.

Pupil 2: And to treat the class all the same and not certain people.

Pupil 3: Get certain treatment or...

Pupil 1: Or this one is really bright so she gets special attention and this one is quite dumb so...

Pupil 2: 'I won't waste my time with her', sort of.

Pupil 1: But that didn't happen. (Girls, Year 10)

They needed to feel 'safe' or 'comfortable' with a teacher, to be able to trust their reaction, before they disclosed their ideas by asking questions. The pupils indicated the possibility that teachers would 'bite your head off' made them, in the words of one student, 'scared to ask them again' (boy, Year 10). Uncertainty about how a teacher might react led one pupil to ask her parents, rather than the teacher, for help.

If you've been with a teacher for a while, you sort of, you know their reactions and stuff, if you feel comfortable asking them. But, like, if you're not really sure, like, this teacher I had in primary school he was in and out and, you didn't really know if you were going to ask him at the wrong time or not so I left it till home. (Girl, Year 8)

All the pupils interviewed were clear they preferred to ask for help from friends, as peers could be trusted to be well intentioned:

You need to be able to trust others, to be sure their reactions won't be to make fun, talk about or think I am stupid. (Boy, Year 9)

The importance attributed to the trustworthiness of peers and teachers was an unexpected, but perhaps unsurprising, outcome of the research. Trust is necessary, as Crooks (2003) points out, precisely where we cannot be certain.

Conclusion

Attending to pupil perspectives provides an opportunity to review assessment for learning and to understand how pupils experience it. Two broad pupil orientations towards participation in assessment for learning interactions were evident in pupil comments. Pupils intimated that, when they sought to understand ideas, they preferred teacher feedback in the form of suggestions, because these maintained an active role for them in making sense of ideas. At these times pupils described assessment as a joint teacher–pupil responsibility. They identified that teachers provided them with the most useful help during one-to-one or small group interaction, because they disclosed more of their own thinking to teachers at this

time. Conversely, when pupils intimated they sought to complete tasks they said they preferred teachers simply to help them do this. They described teacher actions to elicit information about their thinking as unhelpful, because the action took time from their working on a task. They described assessment as a teacher responsibility and saw no role for themselves in seeking help to extend their understanding. This is problematic given that teachers are often responsible for perhaps thirty pupils. Some of the pupils appreciated that it was not possible for the teacher to provide feedback to each pupil on a one-to-one basis, and for this reason recommended that peers play a more active role.

Pupil reflection on their participation in whole-class discussions indicated that they used multiple criteria in judging ideas, some with an internal referent of coherence or 'making sense', and others with external referents, including agreement with empirical evidence and an authority such as the teacher, a knowledgeable peer or a textbook. Pupils intimated that in reaching a decision they sought agreement across a range of criteria, suggesting that teachers might usefully employ a variety of feedback techniques as sources of conviction.

Pupils who construed themselves as active participants in the self-assessment of ideas described questioning as a formative action. Their comments on this action highlighted the unpredictable and dilemma-driven nature of pupil participation in assessment interactions. A lack of trust and mutual respect within a classroom could lead pupils to limit the disclosure of their thinking through questioning, because of concerns about the potential for harm. Consequently, peers, particularly friends, and trusted teachers who were likely to be well intentioned, were a preferred source of help. Peers also had the added advantage that they usually provided timely feedback in language pupils understood.

The pupils in this study construed themselves as active and intentional participants in classroom assessment interactions. For them, assessment was embedded in and accomplished through routine classroom interactions with both teachers and peers. Their participation in these interactions had multiple, and often competing, cognitive/academic, affective and social relationship purposes and consequences that they experienced as inextricably intertwined. Pupil comments indicated that they simultaneously pursued intellectual and social goals, the latter supporting the former. The pupils indicated assessment impacted on how they were seen and treated as learners and knowers within the classroom. Furthermore, it impacted on how they felt about themselves as learners and knowers, and the ideas and actions they came to see as having merit. Teachers undertaking assessment for learning are right to be aware of the delicate balance between these factors.

References

Bell, B. & Cowie, B. (2001) Formative assessment and science education (Dordrecht, Kluwer Academic Press).

Black, P. & Wiliam, D. (1998) Assessment and classroom learning, *Assessment in Education*, 5(1), 7–74.

- Boaler, J. & Greeno, J. (2000) Identity, agency and knowing in mathematical worlds, in: J. Boaler (Ed.) *Multiple perspectives on mathematics teaching and learning* (Westport, CT, Ablex Publishing), 171–200.
- Cowie, B. (2000) Formative assessment in science classrooms. Unpublished D.Phil. thesis, University of Waikato, Hamilton.
- Crooks, T. (1988) The impact of classroom evaluation practices on pupils, *Review of Educational Research*, 58(14), 438–81.
- Crooks, T. (2003) Some criteria for intelligent accountability applied to accountability in New Zealand, paper presented at the American Educational Research Association Conference, 21–25 April 2003, Chicago.
- Driver, R., Leach, J., Millar, R. & Scott, P. (1996) Young people's images of science (Buckingham, Open University Press).
- Dweck, C. (1986) Motivational processes affecting learning, American Psychologist, 41, 1040-8.
- Erickson, F. (1998) Qualitative methods for science education, in: B. J. Fraser & K. G. Tobin (Eds)

 International handbook of science education (Dordrecht, Kluwer Press).
- Filer, A. (1993) The assessment of classroom language: challenging the rhetoric of 'objectivity', *International Studies in Sociology of Education*, 3(2), 193–212.
- Filer, A. (1995) Teacher assessment: social process and social product, *Assessment in Education*, 2(1), 23–38.
- Gipps, C. V. (1999) Socio-cultural aspects to assessment, *Review of Educational Research*, 24, 353–92.
- Harter, S. (1996) Teacher and classmate influence on scholastic motivation, self-esteem, and level of voice in adolescents, in: J. Juvonen & K. R. Wentzel (Eds) *Social motivation: understanding children's school adjustment* (Cambridge, Cambridge University Press).
- Juvonen, J. & Wentzel, J. (Eds) (1996) Social motivation: understanding children's school adjustment (Cambridge, Cambridge University Press).
- Kluger, A. N. & DeNisi, A. (1996) Effects of feedback interventions on performance: a historical review, a meta-analysis, and a preliminary feedback intervention theory, *Psychological Bulletin*, 119(2), 254–84.
- Lemke, J. (1990) Talking science: language, learning, and values (Norwood, NJ, Ablex Publishing).
- McGinn, M. & Roth, W.-M. (1998) Assessing pupils' understanding about levers: better test instruments are not enough, *International Journal of Science Education*, 20(7), 813–32.
- Newman, R. & Schwager, M. (1995) Students' help seeking during problem solving: effects of grade, goal and prior achievement, *American Educational Research Journal*, 32(2), 352–76.
- Sadler, D. R. (1989) Formative assessment and the design of instructional systems, *Instructional Science*, 18(2), 119–44.
- Tunstall, P. & Gipps, C. (1996) 'How does your teacher help you to make your work better?' Children's understanding of formative assessment, *The Curriculum Journal*, 7(2), 185–203.
- Wenger, E. (1998) Communities of practice: learning, meaning and identity (Cambridge, Cambridge University Press).
- Wiliam, D. (1992) Some technical issues in assessment: a user's guide, *British Journal of Curriculum and Assessment*, 2(3), 11–20.