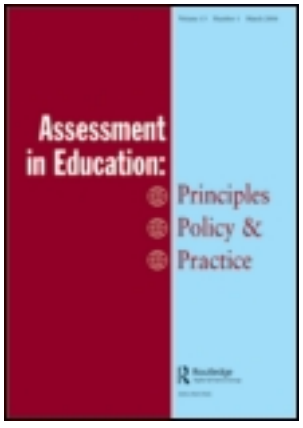

Assessment in Education: Principles, Policy & Practice
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/caie20

Student engagement and student self-assessment: the REAL framework

Geoff Munns [a] & Helen Woodward [a]
[a] University of Western Sydney , Australia
Published online: 18 Jan 2007.

To cite this article: Geoff Munns & Helen Woodward (2006) Student engagement and student self-assessment: the REAL framework, Assessment in Education: Principles, Policy & Practice, 13:2, 193-213, DOI: 10.1080/09695940600703969

To link to this article: http://dx.doi.org/10.1080/09695940600703969

Assessment in Education
Vol. 13, No. 2, July 2006, pp. 193–213

Student engagement and student self-assessment: the REAL framework

Geoff Munns* and Helen Woodward
University of Western Sydney, Australia

This article explores the relationship between student engagement and student self-assessment. It reports on research that has reconceptualised ways of understanding levels of student engagement among primary school learners who live in poor communities. These ways of understanding have been influential in the development of a student self-assessment framework. This framework is presented in the article, as well as a description of its evolution and how it is used within classrooms involved in the research.

Introduction

This article proposes that there are strong theoretical and practical connections between student engagement and student self-assessment. That is, deeper levels of student self-assessment are critical aspects of pedagogical processes aiming to encourage students to be substantively engaged in their classroom learning experiences. This link between student engagement and student self-assessment is being explored in the Fair Go Project, action research into student engagement among low SES primary school students in Sydney's south-west. Drawing primarily on work within the new sociology of education and the sociology of pedagogy, the Fair Go Project brings into play a number of key intersecting theoretical and practical frames concerning student engagement. Since the research has a specific focus on low SES students, it takes up a particular conceptualization of the relationships that these students historically have had with schools and education.

There are three main sections to this article. The first discusses theory that suggests there are strong connections between student engagement and student self-assessment. The second extends this discussion by outlining the theoretical underpinnings and empirical work of the Fair Go Project. The third introduces and describes the *REAL* dimensions of student self-assessment. This is a pedagogical framework

*Corresponding author. School of Education, University of Western Sydney, Locked Bag 1797, Penrith South DC, NSW 1797, Australia. Email: G.MUNNS@uws.edu.au

ISSN 0969-594X (print)/ISSN 1465-329X (online)/06/020193–21

DOI: 10.1080/09695940600703969

intended to enhance, at the same time, student self-assessment and student engagement. This final section discusses how the *REAL* framework has been developed in the Fair Go Project and describes how it is being tested empirically in the project.

Student engagement

Most definitions of student engagement have focused on either the cognitive, emotional or behavioural relationships that students have with education and schools. However, in a recent meta-analysis of research into student engagement undertaken by Fredricks *et al*. (2004), the writers argued against the separation of student engagement into discrete cognitive, emotional or behavioural aspects. Rather, Fredricks *et al.* contended that 'engagement' should be thought of as a 'multidimensional construct' and that the term engagement should be reserved specifically for learning situations where the cognitive, emotional and behavioural components are all strongly present at the same time (Fredricks *et al.*, 2004). Viewed in this way, student engagement is when students are simultaneously:

- Reflectively involved in deep understanding and expertise (high cognition).
- Genuinely valuing what they are doing (high emotion).
- Actively participating in school and classroom activities (high behaviour).

This definition captures student engagement as a *substantive* sense of satisfaction with, and a psychological investment in, the classroom work being undertaken. Here is a clear distinction between *procedural* forms of student engagement, in which students are merely being on task and complying with teachers' wishes and instructions.

Student engagement and student self-assessment

Substantive student engagement should undoubtedly most interest educators concerned with improved educational outcomes for their learners. The suggestion of this article is that there are critical connections between this level of student engagement and student self-assessment. This is arguably not the case in classrooms where the emphasis is purely on procedural engagement. In such classrooms there seems to be little need to have students involved in self-assessment processes. After all, the main aim is the setting of tasks by the teacher and the following of them by the students. On the other hand, it is argued here that for students to be substantively engaged, then it is necessary that there be a classroom philosophy of individual and collective student self-assessment. There are three reasons for this.

First, this classroom philosophy will allow opportunities for the students to share with each other and their teacher their thoughts and feelings about their learning. Our claim here is that such a philosophy is a critical classroom element that will move students closer to engagement. It achieves this by directly involving students in processes that emphasize and encourage the sharing of the classroom pedagogic spaces. Within this sharing, students have opportunities to reflect on what and how they are learning, what they are achieving, their view of themselves as

learners, and the say they have over the direction and evaluation of their learning. Such reflective processes open up the potential for improved learning and increased self-regulation.

Second, and importantly, self-assessment can provide critical feedback to teachers about whether students are engaged. Perhaps this is the only way that teachers will know. Since engagement is an internal feeling, it is difficult (and arguably impossible) to discern by looking for external signs alone. There is an internal–external tension concerning the encouragement and recognition of student engagement. McFadden and Munns (2002), in discussing student engagement, student self-assessment and the social relations of pedagogy, recognized this:

> It is the students themselves who will be able to tell us that they are engaged and who will say whether education is working for them in a culturally sensitive and relevant way. … It is at the messy point of teachers and students responding to each other culturally in relation to classroom discourse and assessment practices where we are truly going to see whether or not students feel that school is for them. (McFadden & Munns, 2002, p. 364)

Third, the connection between student engagement and student self-assessment can be extended in another salient way to do with our understanding of the position and processes of student self-assessment in classrooms. We want to put forward that there is an intriguing parallel in the internal–external tension in the ideas and processes of student self-assessment and student engagement. Both at a theoretical and practical level student self-assessment is often seen as a set of tasks to be completed by students in order that they make an appraisal of their learning (Hart, 1999; Bryant & Timmins, 2002). Of course student self-assessment has a task component that can be set and monitored externally. But it can be much more. If we are interested in substantive and long-term student engagement then the proposal in this article is that there is a need seriously to consider the processes within student self-assessment tasks. In short, we need to focus on the internal processes: the ways of encouraging students to think about learning within a particular classroom philosophy.

Within this orientation our view is that we can get to the heart of the links between student engagement, classroom pedagogies, student learning experiences and high-performance learning. One way of viewing these links is in the alignment of assessment, curriculum and pedagogy (Bernstein, 1996). When it is recognized that this alignment has to work from both sides of the teacher–learner equation then self-assessment becomes a key. The recognition of the value of self-assessment and the necessary interrelatedness of quality pedagogy and high-performance learning are well documented (Cumming & Maxwell, 1999; Black *et al.*, 2002). Furthermore, the literature consistently points to the importance of peer group interaction (Mercer, 2000; Mercer *et al.*, 2004) in the development of students' understandings. There are also convincing arguments to suggest that in classrooms where students are scaffolded to strive towards mastery (as opposed to performance) learning orientations, and supported towards appropriate self-evaluations, then they are constructively involved in the development of competence even from the earliest school ages (Butler, 2004).

Student engagement and the Fair Go Project

The Fair Go Project has taken up these ideas about student engagement and student self-assessment. A critical part of the project's research has focused on the role that student self-assessment might play within classroom pedagogies aimed towards student engagement among students attending primary schools in low SES communities. This study is a joint undertaking between a team of researchers from the University of Western Sydney (School of Education) and the Priority Schools Funding Program[1] (NSW Department of Education and Training). An action research project employing a co-researching ethnographic methodology, the study brings together university researchers, educational consultants, schoolteachers and community members. The project's theoretical underpinnings derive from important research into 'authentic' (Newmann & Associates, 1996) and 'productive' pedagogy (Hayes *et al*., 2005).[2]

The research context of the Fair Go Project provided important opportunities for an empirical consideration of how students from backgrounds historically characterized by school disaffection and resistance might be encouraged to have substantive engagement with their schools and classrooms. More than ten schools have been involved in this research. These are all located within Sydney's south-west region. Nearly two million people live in this region, many of whom are from diverse cultural backgrounds, including the largest concentration of Aboriginal people in the country. The communities the project's schools serve are characterized by substantial numbers of people from low socio-economic backgrounds. Families live either in cheap private housing or in the countless public housing estates throughout the area. Single parents, many of whom are female, head most of these families. The region has high levels of unemployment with youth unemployment a particular problem. Infrastructure such as public transport and community services has been historically lacking in comparison with more affluent areas. The schools are familiar with the emotional, social and financial stresses associated with socio-economic disadvantage and are also faced with the challenges of high student mobility, negative media attention and with systemic and classroom pressure to improve student outcomes to levels comparable to their more advantaged peers. All schools have significant numbers of beginning teachers (university qualified, but in their first five years of teaching). The teachers involved in the project have high levels of energy, commitment and enthusiasm for student success.[3]

As mentioned above, the research context threw up a number of interplaying practical and theoretical challenges. The project recognized that there were important insights offered by individually focused cognitive–behavioural approaches from within educational psychology that would point to interventions to enhance students' motivation and engagement (see Martin, in press). However, the project was also mindful of Furlong's (1991) caveat. In his appeal for the reconstruction of theoretical perspectives around disaffected low SES school pupils, Furlong argued that psychologists hardly ever get to the dimensions of social power affecting students' responses to their schools and classrooms. Consequently, the Fair Go Project team utilized concepts

within the sociology of pedagogy as an attempt to complement psychological theories around student motivation. In particular, the seminal work of Bernstein (1996) was taken up in developing a framework around how schools operate to structure the consciousness and emotionality of students. Critical here is the way schools, through their curriculum, pedagogy and assessment practices 'convey powerful messages' that 'shape individual perceptions of what they might do, and what they might become' (McFadden & Munns, 2002, pp. 362–363). What follows is the unique way that the Fair Go Project attempted to conceptualize student engagement within a sociological framing. There are three foundational components of this framing.

The first involved the significant task of defining substantive engagement, and this has been an important aspect of the theoretical work of the Fair Go Project. Initially this involved problematizing student compliance. It was a risky step given that classroom management issues inevitably dominated the thoughts and practices of the teachers the project was working with. However, student compliance was seen to be a pedagogical outcome that held no guarantees for enhanced academic and social outcomes. Furthermore, there was compelling research evidence showing that low SES students shaped classroom practices by resisting high-level tasks and complying with low-level tasks (see Jones, 1989; Haberman, 1991; Munns, 1996, 2005). The Fair Go Project calls substantive classroom engagement small 'e' engagement ('e'ngagement). This is in line with the Fredricks *et al.* definitions discussed above, but with a contextual reshaping. Small 'e' engagement is defined as a multidimensional construct: the simultaneous coming together of the cognitive, the affective and the operative at high levels. The cognitive and emotional aspects of engagement were accepted by the Fair Go Project, though 'affective' was considered to offer a clearer pedagogical focus for teachers. This is elaborated below when engaging practices are discussed. Changing behavioural (Fredricks *et al.*, 2004) to 'operative' recognized not only the rejection of student compliance discussed above, but also a central research argument that for low SES students to be beneficially engaged, they need to be highly operational learners. Operative again provided a stronger pedagogical and outcome focus for both teachers and students. The definition means that when students are strongly engaged they are successfully involved in tasks of high intellectual quality and they have passionate positive feelings about these tasks. Viewed in this way, engagement is much more than students simply being on task and complying with teachers' wishes and directions.

The second frame of interest to the Fair Go Project is another level of student engagement: big 'E' engagement ('E'ngagement). This is that longer and more enduring relationship with schooling and education that is rejected in large numbers by students living in poor communities (Abowitz, 2000). 'E'ngagement is a commitment to education: the belief that 'school is for me' (McFadden & Munns, 2002). The Fair Go Project believes that these two levels of engagement are interactively linked. Its position is that small 'e'ngagement is embedded within big 'E'ngagement and this provides an important opportunity for classrooms to become critical sites where the immediate educational experiences build to a future-oriented consciousness that sees education as a resource to be profitably employed within students' lives. Viewed in this way, the argument is that there is a temporal relationship between these levels of

engagement. It is useful to conceptualize this embedding of the two levels of engagement as 'the future in the present'. There is an intriguing theoretical twist here to the seminal work on resistance theory by Willis (1977). Willis argued that when working-class students freely choose to reject what schooling purports to offer them (academic success in return for acceptance of and compliance with curriculum and pedagogy), they open themselves up to the very real possibility of future exploitation and oppression. They make 'a free choice to be unfree' (Munns & McFadden, 2000, p. 61): their present freely chosen resistant stances and actions determine their future unequal structural position. As Willis (1977, p. 120) put it, 'It is the future in the present which hammers freedom into inequality'. A tantalizing research prospect emerges here. How can the very kinds of low SES students that Willis described be encouraged, by the nature of their classroom experiences and relationships, not to see school and education as a debilitating set of encounters to be ultimately resisted, but rather as a cumulative series of engaging phenomena? How can the future in the present not restrict, but bring into being enhanced future educational possibilities and, as a consequence, challenge the probability of inherited structural locations?

At a classroom level there is a third theoretical frame that speaks to these links and this has become central to the research of the project. Engagement (at both levels) is a consciousness and an educational identity significantly influenced, as noted above, by classroom message systems (curriculum, pedagogy and assessment practices: Bernstein, 1996). Since both 'e'ngagement and 'E'ngagement are internal feelings, there is an argument that it is the students' internal processes that are crucial. This is the case even though the catalysts for engagement may be substantially through external classroom practices and discourses (learning experiences and discussion and reflection on those learning experiences).

Classroom messages and discourses of power

The three theoretical frames around student engagement described in the preceding three paragraphs provide a distinct research focus. Early work in the Fair Go Project aimed to explore what constituted quality teaching for students in low SES contexts. At the same time as these ideas were directing classroom research, emerging data across the whole Fair Go Project began first to suggest, and then later to confirm, that there were differences in classrooms across the multiple research sites. Students were showing signs that they were becoming more 'e'ngaged. These signs included being more focused on learning experiences and increasingly sharing these experiences outside the classroom with friends and parents.

The Fair Go Project then hypothesized, drawing on Bernstein (1996), that these signs of 'e'ngagement were influenced by the messages delivered through the changed classroom pedagogies. The hypothesis was developed through an analysis of what were the key pedagogical differences in the research classrooms and how this contrasted with the general school experience for low SES students. Both the theoretical and empirical investigations opened up opportunities for the project to explore the links between classrooms and the wider dimensions of social power.

Table 1. Discourses of power and disengaging messages for low SES students

Knowledge	'Why are we doing this?': restricted access to powerful knowledge
Ability	'I can't do this': feelings of not being able to achieve and a spiral of low expectations and aspirations
Control	'I'm not doing that': struggles over classroom time and space and debilitating consequences of resistance and compliance
Place	'I'm just a kid from': devalued as individual and learner
Voice	'Teacher tells us': no say over learning with teacher as sole controller and judge

These connections between classroom practices and discourses with wider societal structures were conceptualized to turn on the temporal concept of the future in the present: the small 'e' engagement embedded in the big 'E' engagement. The central notion is that while students are processing and taking up positions within the powerful school and classroom message systems (curriculum, pedagogy and assessment) they are also negotiating with their teachers 'discourses of power': knowledge, ability, control, place and voice. This discourse finds expression around five key issues, namely, knowledge, ability, control, place and voice.

- What counts as knowledge and who has access to really useful knowledge?
- Who has ability?
- Who controls the teaching space?
- Who is valued as an individual and a learner?
- Whose voice is given credence within that space?

These all influence the way teachers teach and how students see themselves as learners. Again, to generalize across the group, the research literature shows that the common and recurring result of these negotiations for low SES students is that they are receiving disengaging messages (see Connell *et al.*, 1991). These messages are summarized in Table 1.

Interrupting the discourses of power

If many students from low SES backgrounds are continuously receiving disengaging messages, then the Fair Go Project research was indicating that there could be, and needed to be, interruptions to the discourses of power. The central research question of the Fair Go Project research then sharpened its focus to: How might decisive pedagogical changes turn disengaging messages into engaging messages for low SES students? This involved a consideration of how this might be possible within practices and interactions (discourses) on both sides of the teacher–student classroom relationship. Such a position explores an analytical space not allowed by the determinism of other reproduction theorists (see Bourdieu & Passeron, 1977). As McFadden and Munns (2002, p. 363) have argued: 'It is hoped … that the organizational context of education can be used to disrupt the discourses of power such that individuals can begin to change their own consciousness (Bernstein, 1995)'.

The research was suggesting that there were two significant aspects of the pedagogical changes through which these messages are carried and which can powerfully interrupt the discourses of power. These are:

- Classroom learning experiences designed to be highly cognitive, highly affective and highly operative (that is, planned to target definitions of student engagement).
- Classroom processes designed to encourage enhanced reflective processes across the learning community (the 'insider classroom').

The 'insider classroom' concept came about through the ways the project was defining the kinds of classroom learning communities that would foster student engagement. Drawing on the critical literacy literature, the following definitions were used to help think about the kinds of highly engaged learners the project wanted in classrooms:

> … finding ways of enabling and encouraging learners to enter into communities of practice, discourse and inquiry … to become an 'insider' in the culture of the classroom. (Durrant & Green, 2000, p. 103)

> … involves becoming identified *and* identifying oneself as a member of a socially meaningful group … playing a socially meaningful 'role' within that discourse community. (Gee, 1990, p. 143)

Classroom observations and theoretical investigations (Black *et al.*, 2002, on self-assessment; Cazden, 2001, on classroom discourse; Dweck, 1999 and Hattie, 2002, on teacher feedback) saw the development of an interactive framework that constituted the key elements of an insider classroom. These were: student community of reflection, teacher inclusive conversations, teacher feedback and student self-assessment.[4]

The central role of student self-assessment

Thus far, the present article has defined student engagement, attempted to establish links between student engagement and student self-assessment and introduced a sociological framing of student engagement developed in the Fair Go Project. The bringing together of literature from both the psychology and sociology of education addresses Furlong's dilemma (above) by utilizing the combined strengths of each approach. The strength of the psychological focus is in the understanding of the complex factors that impact on individual student responses and energies. A sociological strength is found within an examination of the connections between classroom processes and discourses and the wider dimensions of social power. Bernstein's (1995, 1996) project offers a way to bring these approaches together, linking individual consciousness, pedagogical devices and wider societal structures. As Singh and Luke (1996, p. xii) have stated: Bernstein's analysis of pedagogy connects 'issues of the face-to-face social construction of knowledge with issues of institutional location and structure'.

To return to classroom issues around substantive 'e'ngagement, the Fair Go Project research hypothesized that if the aim is for students to be substantively 'e'ngaged in high level learning experiences, then student self-assessment had to play a central role in the classroom. There were two aspects to this central role.

First, reflection had to be extended to deep-thinking conceptual planes where the cognitive, the affective and the operative become one. The aim here is to focus students' reflections about their learning towards the high levels of thinking, feeling and working that define 'e'ngagement. Second, student self-assessment had to provide opportunities for students to be involved in their own interruptions to the 'discourses of power'. That is, students needed to:

- Reflect on what they were learning and how it connected to their lives (knowledge).
- Be actively involved in evaluating their own performance and working on how to improve that performance (ability).
- See that the classroom pedagogic space was to be shared between themselves, their classmates and their teacher within a community of learners (control).
- Feel that they were valued as individuals and learners (place).
- Have a say in the way learning experiences were designed and evaluated (voice).

The empirical work then became focused on this central role of student self-assessment within classrooms aiming for student engagement. The challenge was to explore how student self-assessment could evolve further towards a vital pedagogical activity, instrumental in enhancing student engagement, improving learning and teaching and changing the whole context of the classroom. The result of this research is the *REAL* dimensions of student self-assessment (*R*eflective *E*ngagement: *A*uthentic *L*earning). The development, form, implementation and ongoing testing of this pedagogical framework are now described.

REAL dimensions of student self-assessment

The first framework

The *REAL* framework takes a qualitative and formative approach to student self-assessment. Inspired by Biggs' solo taxonomy (1995), it is intended to be used as a pedagogical framework through which teachers can enhance teaching and learning by encouraging students to move through deeper levels of reflection.

There has been an evolutionary process to its development. The first step was in the investigation of the interrelationship between student engagement and student self-assessment. This took place in a number of classrooms in one of the research schools. Using an action co-researching methodology, teachers and university researchers planned and evaluated changes to classroom pedagogies in line with the Fair Go Project's frameworks. Students were introduced to self-assessment processes (for example, large and small group discussions and the compiling of learning journals). Data was collected through observations, interactions with the students and analysis of their written reflections.

The action phase of the research began in a Year 4 classroom (learners generally in the 9–10 age group). The teacher began by encouraging the children to be part of the learning process by giving them opportunities to make decisions about the context of their learning and propose processes whereby designated outcomes could be

achieved. The research focused on the involvement of children in authentic decision-making within the classroom and accessing their thinking about their place in the learning framework. One of the first issues that arose was the necessity for the children to have the vocabulary to enable them to talk about both the curriculum and about their learning. They needed reflection opportunities for the children that allowed them to talk about their learning. Children were given post-it notes to write under one or all of the following headings:

- What I learnt.
- What I liked.
- What I didn't like.
- What I want to know.

The post-its were then placed on a chart under these headings. Other children were then able to muse about the responses and eventually the responses were entered into an assessment journal. As the children became more relaxed and more familiar with the process, the entries became more expressive and assisted both the teacher and the children to understand better the learning that was accomplished and how they could build on this learning for the future. During this period of time it was noticed that the language the teacher used assisted the children to refocus their work from trying to please the teacher to doing the best they could to master the task criteria. The teacher encouraged students to make judgments about their work and continually opened up discussions about learning by working outside the teacher default discourse of initiation-response-evaluation (IRE: Cazden, 2001). The issue of teacher discourse increasingly became a focal point for our classroom investigations.

After a period of ten weeks research observations were showing that the children seemed to be merely 'going through' the process of reflection. They did as they were asked and they complied with the teachers' requirements. Ironically, their compliance in their self-assessments became the sort of stances that we had attempted to overcome as we started the project: students going through their classroom paces without involvement in their learning processes. At the same time the research team was also becoming dissatisfied with the one-dimensional nature of the reflective probes. There was a recognition that we needed to design ways of encouraging the students to think more deeply about their processes of learning and the relationship between reflection and engaged learners. It was at this stage that we started to focus on the possibility of a framework that would help us see beyond the basic level of self-assessment. Biggs' (1995) solo taxonomy opened the discussion and later became the foundation of our thinking. Biggs put forward the idea that assessment items should be designed in such a way that the assessment product revealed different levels of understanding. The solo taxonomy is a systematic way of increasing the structural complexity of learning and assessment tasks through unistructural, multistructural, relational and abstract sequences. Drawing on the solo taxonomy, a multidimensional self-assessment framework (Figure 1) was developed. This first step worked within the concepts of solo, but represented a revisioning to capture the intersections of student engagement and student self-assessment. It had two aims and associated

Dimension	Affective	Cognitive	Operative
Conceptual: translating into concepts			
Relational: relational to other areas/processes			
Multidimensional: content plus process			
Unidimensional: content basic			

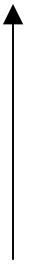

Figure 1. Dimensions of student self-assessment (the basic framework)

features. The first was to capture the multidimensionality of 'e'ngagement: the research team wanted students to reflect on their learning within cognitive, affective and operative domains. The second was that we wanted to move those reflections to higher conceptual levels as a way of encouraging stronger 'e'ngaged learners. Basic to this framework was the belief that engagement occurs when there is the powerful coming together of high levels of the cognitive, the affective and the operational. The framework is read from the bottom to capture and simulate the reflections moving to higher conceptual levels.

At this time, these ideas around student self-assessment under development in the Fair Go Project research began to be more widely taken up. A group of schools focused on student engagement using the Fair Go Project pedagogical changes (discussed above). Data about impact on students was gathered through teacher and student interviews. It became apparent in these interviews with teachers that to put this framework into practice, they felt they needed to be given examples of questions that could be placed within each dimension. Subsequently, members of the research team developed different categories of questions and reflective prompts. The different probes cut across and overlaid the dimensions and there was a dual intention to this process. The first was to cover many of the types of reflective prompts that could be used in student self-assessment processes. The second and most important intention was to provide opportunities for students to confront, through their own reflections, the discourses of power at the heart of classroom messages. The categories of probes were:

- Thinking about achievement.
- Looking for evidence.
- Working with other people.
- Overcoming barriers.
- Reframing the task.

There was seen to be an interactive dynamic to these probes. The thought was that together they would encourage students to be involved in their own implementation of 'e'ngaging classroom discourses. For example, 'e'ngaging messages about

knowledge can be linked with probes around achievement. Looking for evidence probes connect with discourses around voice. Probes around reframing the task and working with other people can be coupled with the development of a community of learners that encourage shared control of pedagogic spaces and a valuing of individual learners. Probes focusing on overcoming barriers give students opportunities to work on their abilities while at the same time providing them with a voice about the design and evaluation of classroom learning experiences.

Factors impacting on the latest version of the framework

This initial version of the framework was implemented in a number of research schools and this implementation led to further development of the *REAL* framework. Teachers in the research schools chose to investigate the model in terms of their perceptions of children's learning. Subsequent meetings and workshops brought forward data that assisted in the exploration of self-assessment, its function within the classroom community and relationship with student engagement. A number of further implementation factors and experiences then moved the *REAL* framework to its current stage. These are now discussed in turn.

The first was the need to show teachers the kinds of 'lateral' probes that would encourage high levels of reflection. Lateral means the kinds of probes that move students into new ways of thinking about their learning. Initially, there was a view that if teachers understood the concept of the framework they would be able to develop their own probes. When it was seen that this process needed to be scaffolded for the teachers, a series of uncategorized probes was developed by the research team from the literature on student reflection (see Hart, 1999) and research experience in schools. These probes were chosen as interesting and different ways to prompt student reflection. Initially, these questions were left as a list for teachers to select from when they were working with the children's self-assessment. However, while they were seen as valuable, they were not placed into appropriate sections of the framework. Rather, they were used independently and therefore did not contribute to the areas and levels of reflection the research was working towards.

The second factor that emerged was concerning the dimensions themselves. While it was continually emphasized that they were not hierarchical, some teachers saw that the students had to progress from unidimensional to conceptual, and therefore students could not progress from one to the other unless they had mastered the previous stage. This meant they felt that having established the foundational unidimensional platform ('what did you learn', 'what did you like' and 'what did you do') they moved to the multidimensional ('how did you learn'). The teachers discovered that this was an extremely difficult concept for the students to articulate. After some discussion it was resolved that they should try a different entry into this dimension, namely, 'what did you do', 'how did you do it', then 'how did you learn those things'. That is, there was a subtle but significant shift to a focus on learning processes. Though difficult, this dimension was seen to be very important within the engagement-student self-assessment interplay. After all, the Fair Go Project acknowledges

that learning the right answers will get students through certain aspects and stages of school but learning how to learn was more critical for 'E'ngagement and lifelong learning. It was also found that some students could more easily understand the relational stage before they understood the multidimensional stage. This reiterated the understanding that the model does not always have to operate in a rigidly hierarchical manner.

The third research issue concerned the understanding of higher order concepts. While the notions of 'what you learnt' and 'what you did' were considered important concepts to be established, it was discovered that some students (particularly 5- and 6-year-olds) did not find it easy to communicate them. Most of them could point to a 'smiley' face to indicate what they liked but further question revealed (not surprisingly) that this response was more to do with pleasing the teacher or how they felt at the time. As a result some teachers working in the project developed and introduced activities and games that helped students develop a language about their feelings associated with different classroom learning experiences.

The fourth research factor was the difficulty that teachers had in developing probes for the affective dimension. Again, while the initial stages (like? dislike? why? why not?) were relatively easy to establish, trying to extend to ideas of higher order emotions proved more difficult. Believing in the importance of reflections in this area, teachers set about ensuring they included situations where different emotions were explored and articulated. The students found talking about what they learnt at this level challenging. Many of them had never thought about it, and so again, many different kinds of activities were devised that gave the students opportunity to talk with others about their achievements.[5]

As these challenges were being faced, there was an increasing belief about the potential this framework had for further development of children's learning. At the same time the research team moved to a concentrated focus on learning in a public housing estate school.[6] The school was a particularly important research site as these kinds of estates are characterized by very high levels of student disengagement. The interplay of teachers' pedagogies with the social and physical environment is seen to be a contributing factor in this disengagement (see Connell *et al.*, 1991). If the framework contributed to higher levels of student engagement in such a challenging context, then its potential would be substantiated. The research process was to work with the teacher and the students, implementing and evaluating engaging pedagogies and student self-assessment processes. On weekly visits the research team co-planned with the teacher, observed the children during class, and continually talked to them to assist them in their thinking about their own learning. The classroom teacher had been involved with the ideas and practices of the Fair Go Project for a number of years and was committed to the ways that student reflection could build a classroom learning community. She is an outstanding example of a teacher in this context, building relationships with many of the most 'at-risk' students in the school. Student self-assessment was a critical aspect of the way these relationships were built. Initial observations and conversations with these children revealed that they were prepared to speak freely about their learning. They emphasized thinking and producing good

work. As one girl put it, 'I love it when you're writing and really get into it'. They also saw teamwork as a great advantage, not only able to help them think and make decisions but also helping them learn to respect every one's ideas and share responsibility. This was a remarkable achievement. The teacher revealed that earlier in the year she had to continually stop children from vocally and physically abusing each other. Importantly for the project, she had used reflections in the 'working with other people' category to address this issue.

Another method used to encourage the children in their thinking about their learning was to issue each child with a notebook. In it they were to write notes about their learning wherever and whenever it occurred. Initially the writing was restricted to school, until the children became proficient in recording and understanding what they needed to do. At the outset students were asked to think about what they knew now and what else they needed to know. Responses generally demonstrated their reflections at unidimensional and multidimensional levels:

> I chose this because I enjoyed it and we got to play with a machine and add stuff to it. I learnt how to use a machine. I learnt about the five different things a robot can do. … I learned this by listening to Richard's instructions and to do things he was talking about. I felt like I was getting smarter just by learning a new thing. (Year 5 student from reflective notebook)

As the research proceeded it became apparent that a framework for student self-assessment and reflection would become more powerful if the teacher and children were constantly involved in responding orally and in writing to a series of challenging, interesting and lateral probes. The previously discussed lists of these kinds of probes were then arranged across the framework using a coding process. The nature of this model and the inclusion of the essential elements of reflection, engagement and authentic learning led to it being named the *REAL* dimensions of student self-assessment (Figure 2).[7]

The *REAL* framework and student engagement

The previous sections of this article have described the development of the *REAL* framework. This framework is still evolving, currently being trialled in a number of classrooms in the Fair Go Project. It is the contention of this paper that the *REAL* framework, in concert with other classroom changes called for within the Fair Go Project, has the potential to be a significant factor in encouraging productive student engagement with school as a place and education as a resource: the kinds of engagement conceptualized as 'e'ngagement and 'E'ngagement. The current phase of the Fair Go Project is using data from student learning journals, student interviews and a student engagement questionnaire (Likert scale responses) to measure increased levels of student engagement. This research will also gather evidence to validate the framework in relation to learners' use of levels, categories and probes and how these correlate with student engagement in relation to messages carried within the discourses of power.

Unidimensional: describing basic feelings, thoughts, actions

Affective	Cognitive	Operative
 What were the fun bits in your learning?  What surprised you about your learning?  How does working with others make you feel?  How do you feel now when it gets tricky?  What would make you feel better about today's work?	 Write a memo to someone about the most important thing you learned today/yesterday.  What is your best hard work?  What cooperation helped your learning?  What was the tricky part?  Name two things to make you think harder?	 What new thing can you do now?  List your strengths.  Who helped you the most?  What is your biggest improvement?  What would you change about today's work to help you improve?

Multidimensional: developing feelings, thought and actions about learning processes

Affective	Cognitive	Operative
 Why were the fun bits fun?  Why were you surprised about your learning today?  Why does cooperative learning make you feel great?  How do you feel when you solved a problem?  How could changes to today's work make you feel better?	 What strategies did you use to learn something important?  How did you know that you had learnt something?  What did you learn about working in groups while doing this work?  Write two questions you could not answer. Explain.  Why do you think doing it differently will help with your learning?	 What goals did you set for yourself in this activity/task/project? How well did you achieve them?  What is the evidence of your achievement about today's learning?  What is the most valuable advice you could give to students who are involved in similar projects in the future?  How could we change this (lesson/unit/strategy/skill) next time we do this?  What would you change if you were to do a similar task to improve your learning?

Relational: relating feelings, thought and actions to other areas/processes

Affective	Cognitive	Operative
 How do you feel when you achieve your goals?  What other feelings do you have about this work?  How can you ensure your group has positive feelings about your work together?  What problems do you have to solve about how you feel when it gets tough?  How can you feel like this more in your work at school?	 Connect this knowledge to something you already know or can do.  How do these processes/content relate to something else you know?  Who do you know who would find this learning (content) or strategy (process) helpful?  Find three sources where this new knowledge could be useful.  When and where else could you use this information?	 Think of a way to use ... since we practiced it in class.  Reflect on the strategy we used and why we used it.  How could you become more involved in teamwork next time that would be different than this time?  List five places you could use the skills you have learnt during this lesson/unit/task?  What would you do differently in your next project given the knowledge you now have?

Conceptual: translating into concepts feelings, thought and actions about learning processes

Affective	Cognitive	Operative
 Think about the many feelings you have about your work. Use colours and/or drawing to represent three of these feelings.  How can you generate some specific feelings about you work, e.g., empathy, curiosity.  Survey the members of your group about how they felt during this task and align them with you own	 Explain how your thinking was different today from yesterday and from what it could be tomorrow.  Why is it important for you to know/understand/be able to do this?  Reflect on a conversation you had with someone else that triggered your thinking about ...	 Why is what you have learnt critical for you as a person.  List three ways the skills you have learnt can be used elsewhere?  How you would help someone else to learn something you discovered today?  What did you find out about you problem solving

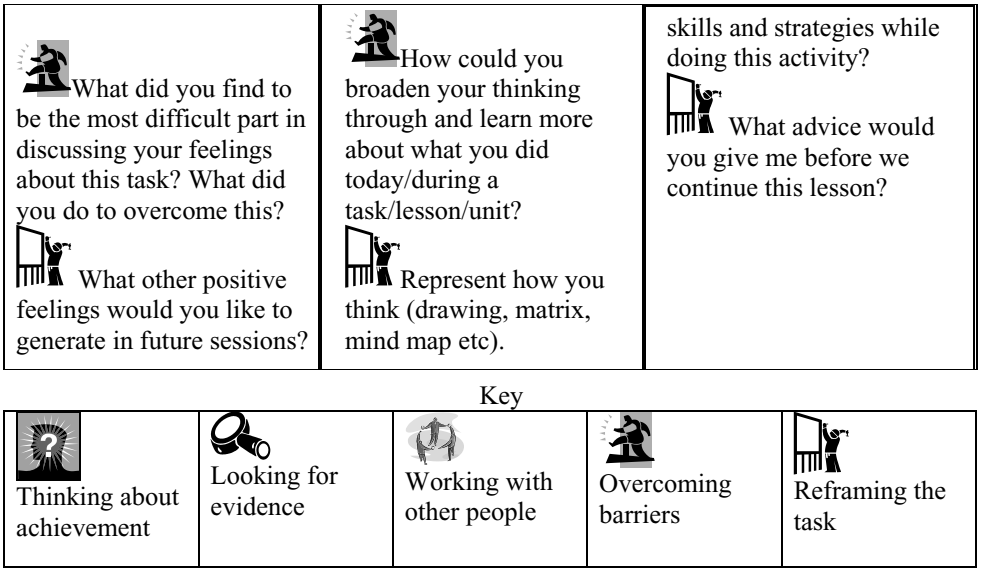

Figure 2. *REAL* dimensions of student self-assessment

One of the key issues to emerge from this project is the importance of classroom discourse. At the heart of this discourse is the language of the teacher and the students. The Fair Go Project talks about 'teacher inclusive conversations' and 'student community of reflection', a form of classroom discourse that opens up the expectations of the students so that they can openly communicate with others about their thinking, their feelings and their development as learners. The hope is that the *REAL* framework might be able to provide an important step for teachers in building an engaging 'insider' culture in the classroom learning community. Such an 'insider' culture would bring students face to face in a positive way with classroom discourses and that here, in the words of Bernstein (1995), is an organizational context of education that can be used, *inter alia*, 'to disrupt the discourses of power such that individuals can begin to change their own consciousness' (McFadden & Munns, 2002, p. 363). If this happens the view is that there will be very real chances that engaging classroom messages will be realized for the students (Table 2; see p. 184).

Subsequently there is an authentic hope that they will develop a consciousness that 'school is for me', rather than one of defeat, struggle and giving up. The words of the students are giving some life to that hope. Their journals talk about receiving engaging messages:

> I chose this work because I am proud of it … I now know that I can accomplish more things than I thought … I think I am more confident than I was before … I can write more than I ever thought … (Year 6 student from reflective notebook)

In interviews their words are about 'e'ngagement and 'E'ngagement.

Table 2. Discourses of power and engaging messages for low SES students

Knowledge	'We can see the connection and the meaning': reflectively constructed access to contextualized and powerful knowledge
Ability	'I am capable': feelings of being able to achieve and a spiral of high expectations and aspirations
Control	'We do this together': sharing of classroom time and space: interdependence, mutuality and power with
Place	'It's great to be a kid from': valued as individual and learner and feelings of belonging and ownership over learning
Voice	'We share': environment of discussion and reflection about learning with students and teachers playing reciprocal meaningful roles

Student: We get to do self-assessment and we get to say how we feel about the work. And she [teacher] reads it and tries to make improvements in what she teaches us, and she tries to make it as fun as possible. She listens to the whole class and she just wants everyone to enjoy what she's teaching and be able to learn it.

Interviewer: Tell me about opportunities for reflection in your class.

Student: Well self-assessment. We write down what we've been learning and if we liked it and why we liked it. And if we needed some more help to do it. How to overcome barriers.

Interviewer: And has that been useful for you?

Student: Yeah it makes you think more about what you're doing, it makes you think more about what you're learning. And how you understand it.

Interviewer: Does it make you feel different about school?

Student: Yeah because without school and without learning you can't get forward. If you don't learn you won't go nowhere. But if you think and talk about learning more it will make you keep going. And the more you can keep going the more you achieve. I've learnt this year … to keep going and just take the risk. Never give up.

Notes

1. The Priority Schools Funding Program (PSFP) is a program aimed at improving educational outcomes for students living in the poorest communities in NSW.
2. The 'productive pedagogies' framework of the Queensland School Reform Longitudinal Study (QSRLS) (Hayes *et al.,* 2005) built on the seminal authentic instruction research of Newmann & Associates (1996). While neither the Newmann nor the QSRLS analyses of classroom practices specifically targeted educationally disadvantaged students, both studies proposed that the pedagogical approaches described in their research would bring forward enhanced outcomes for all learners, including the educationally disadvantaged. There are four dimensions to the productive pedagogies model: intellectual quality, relevance, supportive classroom environment and recognition of difference. Within each dimension there are a number of elements. The dimension of intellectual quality involves students undertaking classroom experiences that encourage higher order thinking, deep knowledge and deep understandings. This is supported

by students engaging in substantive conversations and problematizing knowledge. Processes of intellectual quality are sustained by the teaching and taking up of metalanguage within classrooms. Relevance has the elements of knowledge integration within a problem-based curriculum that makes clear connections with both students' background knowledges and real-life contexts. A supportive classroom environment is characterized by a socially positive environment where the criteria are explicit and students have some control over the pace, direction and outcomes of the learning experiences. Such an environment has students both engaged in their learning and self-regulating their own classroom behaviours. Critical elements of recognition of difference are the identification, acknowledgement and deployment of cultural knowledges together with the use of deliberate strategies to involve students from different backgrounds. There is also a promotion and acceptance of concepts and values surrounding group identity and citizenship. A narrative style of teaching is seen to be important within this dimension. The argument is that when these four dimensions of 'productive pedagogies', in concert, are found in high levels in classrooms, then there is a pedagogy that will produce great educational benefit to learners.

3. See Munns (2004) and Fair Go Team (in press) for a more detailed overview of the project.
4. See Munns *et al.* (in press), for a more detailed discussion of the insider classroom framework.
5. See Munns *et al.* (2005) for a more detailed description of the activities and games designed to assist learners respond to probes across all levels and dimensions of the emerging framework.
6. Public housing estates are very poor areas. These are impoverished places for those in society who bear the greatest social, physical and financial difficulties. Invariably there are single-parent families, with increasing numbers of these headed by females.
7. Note that the 60 probes are intended to be examples of the framework in action. In use, probes can be introduced at any level and across all categories depending on the needs of the learning context.

Notes on contributors

Geoff Munns has more than 25 years teaching experience in primary schools (including executive roles as Assistant Principal and Principal). His research interests focus on improved educational outcomes for students from educationally disadvantaged backgrounds (including indigenous students). In particular he is interested in how these students can become engaged in their classrooms and subsequently develop a long-term commitment to education.

Helen Woodward is Associate Professor at the University of Western Sydney in the School of Education (retired). She has been Head of Primary Education and as such has been deeply involved in the development and implementation of several primary education programs. Assessment has been of both research and practical interest for some years. Helen has written one book on assessment, written articles and presented at conferences for national and international audiences and has worked with educators across the world in establishing assessment programs and strategies for students from primary school through higher education.

References

Abowitz, K. (2000) A pragmatic revisioning of resistance theory, *American Educational Research Journal,* 37, 877–907.

Bernstein, B. (1995) Code theory and its positioning: a case study in misrecognition, *British Journal of Sociology of Education,* 16, 3–19.

Bernstein, B. (1996) *Pedagogy, symbolic control and identity: theory, research, critique* (London, Taylor & Francis).
Biggs, J. (1995) Assessing for learning: some dimensions underlying new approaches to educational assessment, *The Alberta Journal of Educational Research,* 41(1), 1–17.
Black, P. & Wiliam, D. (1998) Assessment and classroom learning, *Assessment in Education,* 5(1), 7–71.
Black, P., Harrison, C., Lee, C., Marshall, B. & Wiliam, D. (2002) *Working inside the black box: assessment for learning in the classroom* (London, Kings College).
Bourdieu, P. & Passeron, J. (1977) *Reproduction in education, society and culture* (London, Sage).
Bryant, S. & Timmins, A. (2002) *Portfolio assessment: an instructional guide* (Hong Kong, Department of Curriculum & Instruction, HKIEd).
Butler, R. (2004) The development of self-evaluation between early and middle childhood: from structural deficits to the construction of knowledge, strategies and motives in context, paper presented at the *SELF Research Centre Biannual Conference*, Berlin, July.
Cazden, C. (2001) *Classroom discourse. The language of teaching and learning* (Portsmouth, Heinemann).
Connell, R. W., White, V. M. & Johnston, K. M. (1991) *Running twice as hard* (Melbourne, Deakin University).
Cumming, J. & Maxwell, G. (1999) Contextualizing authentic assessment, *Assessment in Education,* 6(2), 177–196.
Durrant, C. & Green, B. (2000) Literacy and the new technologies in school education: meeting the l(IT)eracy challenge?, *The Australian Journal of Language & Literacy,* 23(2), 88–109.
Dweck, C. S. (1999) *Self-theories: their role in motivation, personality, and development* (Philadelphia, PA, Taylor & Francis).
Fair Go Team (in press) *School is for me: pathways to student engagement* (Sydney, Priority Schools Funding Program, NSW Department of Education and Training).
Fredricks, J. A., Blumenfield, P. C. & Paris, A. H. (2004) School engagement: potential of the concept, state of the evidence, *Review of Educational Research,* 76(1), 59–109.
Furlong, V. (1991) Disaffected pupils: reconstructing the sociological perspective, *British Journal of Sociology of Education,* 12(3), 293–307.
Gee, J. (1990) *Sociolinguistics and literacies: ideologies in discourse* (London, Falmer Press).
Haberman, M. (1991) The pedagogy of poverty versus good teaching, *Phi Delta Kappan,* 73(4), 290–294.
Hart, D. (1999) Opening assessment to our students, *Social Education,* 63(6), 343–345.
Hattie, J. (2002) Why is it so difficult to enhance self-concept in the classroom: the power of feedback in the self-concept-achievement relationship, paper presented at the *International SELF Conference*, Sydney, August.
Hayes, D., Mills, M., Christie, P. & Lingard, B. (2005) *Teachers and schooling making a difference* (Crows Nest, Allen & Unwin).
Jones, A. (1989) The cultural production of classroom practice, *British Journal of Sociology of Education,* 10, 19–31.
Martin, A. J. (in press) Examining a multidimensional model of student motivation and engagement using a construct validation approach, *British Journal of Educational Psychology.*
McFadden, M. & Munns, G. (2002) Student engagement and the social relations of pedagogy, *British Journal of Sociology of Education,* 23(3), 357–366.
Mercer, N. (2000) *Words and minds: how we use language to think together* (London, Routledge).
Mercer, N., Dawes, L., Wegerif, R. & Sams, C. (2004) Reasoning as a scientist: ways of helping children to use language to learn science, *British Educational Research Journal,* 30(3), 359–377.
Munns, G. (1996) *Teaching resistant Koori students: towards non-reproductive education.* Unpublished Ph.D. thesis, Armidale, University of New England.
Munns, G. (2004) A sense of wonder: student engagement in low SES school communities, paper presented at the *Australian Association for Research in Education*, Melbourne, December.

Munns, G. (2005) School as a cubbyhouse: tensions between intent and practice in classroom curriculum, *Curriculum Perspectives,* 25(1), 1–12.

Munns, G. & McFadden, M. G. (2000) First chance, second chance or last chance? Resistance and response to education, *British Journal of Sociology of Education,* 21, 59–76.

Munns, G., Woodward, H. & Koletti, J. (in press) Engagement and student self-assessment, in: Fair Go Team (Ed.) *School is for me pathways to student engagement* (Sydney, NSW Department of Education and Training).

Newmann, F. & Associates (1996) *Authentic achievement: restructuring schools for intellectual quality* (San Francisco, CA, Josey Bass).

Singh, P. & Luke, A. (1996) Foreword, in: B. Bernstein, *Pedagogy, symbolic control and identity: theory, research, critique* (London, Taylor & Francis).

Willis, P. (1977) *Learning to labour* (Farnborough, Saxon House).

Woodward, H. & Munns, G. (2003) Insiders' voices: self-assessment and student engagement, paper presented at *New Zealand Association for Research in Education (NZARE) and Australian Association for Research in Education (AARE) Joint Conference*, Auckland.