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Beyond Deficit Views: engaging students with ADHD

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Abstract
The challenges associated with disengaged middle school students are often understood through deficit views, either of teacher or student. A focus on 'behaviour management' can frame students with difficulty as difficult students, while a focus on 'quality curriculum' can miss other influences and blame teachers for students remaining disengaged. Considering Attention Deficit Hyperactivity Disorder (ADHD), a prominent deficit view of student behaviour and barrier to student engagement, this paper seeks a way out of a dichotomy of deficit in schools. It argues that more than medical answers are needed about ADHD, and on this basis, it explores potential social, political and schooling influences on greater ADHD diagnosis and medication use in lower socio-economic areas. The paper then reports on doctoral research into how students respond to the ADHD label and common interventions in school communities. It concludes with the early findings of research into the efforts by teachers in Adelaide's northern urban fringe to design engaging and life-connected pedagogies and pays particular attention to the responses of the most disengaged of students, those diagnosed with the deficit label ADHD.

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is the most commonly diagnosed psychiatric disorder amongst school-aged children in Australia (Prosser 2006a). By definition, disorders are biological differences that cause social impairment (Wakefield 1992), and in the case of ADHD, this is characterised by inattention, impulsivity and hyperactivity to the level that it results in impairment of academic and social functioning (Barkley 2006). ADHD is not an uncontested condition (Taylor et al 2006) with debate continuing over its existence (Tait 2005). Whatever one's view on its 'reality', ADHD is 'real' in its consequences. Disruptive behaviour produces high levels of stress in parents and students, hinders peer relationships, and places pressure on teachers to facilitate learning despite the difficulties often associated with ADHD (Kos et al, 2006; Prosser 2006a; Atkinson et al 1997). In the middle years, ADHD contributes to low academic achievement, early school leaving, suspension and expulsion from school (DuPaul et al 2006; Kos et al 2006).It also raises expectations that school administrators should be able to provide adequate resources at a time when real-term funding for government schools is declining (Atkinson et al 1997).

Meanwhile, the number of young people treated for ADHD has sky-rocketed over the last fifteen years. Since 1984, psychostimulant drug treatment for ADHD in Australia has grown by twenty-six percent (Berbatis et al 2002) to around 1.7 million dexamphetamine prescriptions in 2003 (Commonwealth Government of Australia 2004). ADHD diagnosis contributed to a ten fold rise in the number of Australian boys with mental and behavioural disorders during the decade before 1998 (Davis et al 2001). Currently, there are approximately eighty thousand young people diagnosed with ADHD (Prosser 2006a), with recent estimates of prevalence varying between three to six percent of school aged children in Australia (Berbatis et al 2002; Reid et al 2002).

Diagnosis does not just vary by age and gender (Prosser 2006a), ADHD drug treatment also varies by state and region. American studies have repeatedly shown significant variation by region (Reid et al 2002; Morrow et al 1998; Zito et al 1998; 1997) and socio-economic status (Reid et al 2002; Diller 1998; Safer et al 1988). In Australia, rates of diagnosis also vary by state (Berbatis et al 2002; Hazell

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et al 1996; Valentine et al 1996), with the 2003 rate of dexamphetamine drug treatment for ADHD almost four times the national average in Western Australia (Commonwealth Government of Australia 2004). Notably, regions with lower levels of income and employment also have higher levels of ADHD diagnosis and drug treatment in Australia (Prosser 2006b; Reid et al 2002; Prosser et al 1999). Such trends raise ADHD as a social inclusion issue and lead one to ask why ADHD diagnosis and drug treatment is more prevalent in low socio-economic regions?

A sociological view of the growth of ADHD in lower socio-economic areas

Until the nineties, the rapid change in medical nomenclature (Prosser 1999) and the dominance of medical discourses around ADHD stunted the development of sociological considerations of ADHD (Prosser 2006a; Ideus 1994; Reid et al, 1994). However, sociological perspectives can offer important insights into the dramatic growth of ADHD in Australia. For instance, ADHD has a symbolic status beyond that normally accorded to a medical diagnostic label (Prosser 2006a). It is here that one is reminded of Gidden's concept of 'structuration' which emphasises that social life is more than random individual acts, but neither is it determined solely by macro structural forces. In the case of ADHD, such a perspective highlights that diagnosis results from the decision of individual parents to consult a medical practitioner, but also that the large number of parents who made this choice in recent years points to macro pressures and changes. In other words, the explosion in ADHD diagnosis and drug treatment raises the question: 'what social factors have made ADHD attractive to so many parents?'

ADHD & parenting

One explanation for the attraction of the ADHD label is that it is an excuse for poor parenting (Singh 2004). This view draws on a discourse about changing family structures and a decline in community networks, as well as deficit views of working class suburbs and single parent families. It is important then, to understand the views and experiences of the parents who seek ADHD diagnosis, their reactions to the label, and how their understandings change (Taylor et al 2006). Such a symbolic interactionist perspective shows evidence of parents feeling pressure from teachers and doctors to seek diagnosis (Taylor et al 2006; McHoul et al 2005; Sax et al 2003). A recent Western Australian study of parental attitudes (Taylor et al 2006) revealed that parents grieved over the acceptance of diagnosis and often sought a second opinion; such feelings were confirmed by my research in South Australia. This research indicates that while poor parenting may exacerbate difficulties, parents are not seeking ADHD diagnosis as a 'cop out' (Prosser 2006a; 2006b). Given this reluctance and that the 'reality' of ADHD is still contested, the 'cop out' argument does not thoroughly explain why so many families accepted ADHD diagnosis in recent years.

A sociological understanding of ADHD must also consider its presence as a social construction that is 'indelibly scored on the public psyche' (Graham 2006, p.1). With Australian television swamped by American-influenced content, it would be naïve to think that American culture does not influence the reactions of parents, students and teachers to ADHD. ADHD is now an established part of popular culture, it has a significant presence on the internet (Prosser 2006b) and regularly appears in news media, comedy programs, cartoons and in popular songs (Prosser 2006a). The moment that Principal Skinner labelled Bart Simpson with ADHD, the label shifted from the diagnostic term of medical textbooks to the symbol of any bad behaviour in the mainstream classroom. The popular impact of ADHD was demonstrated recently when the archetype of Bart was adopted in an University of Western Australian study using the cartoon character to test student and parental perceptions of ADHD behaviours (Hoong et al 2003). Despite this, research does not indicate that parents are flooding into schools riding a wave of popular acceptance of ADHD. Taylor et al (2006) found that many parents resisted diagnosis because the experience of their family differed greatly from media representations of ADHD. Instead, research suggests that parents seek ADHD diagnosis primarily out of frustration with inadequate support from schools or teachers (Kos et al 2006; Damico et al 1995). Further, entry into primary school and transition into secondary school are the key times for ADHD diagnosis (Kos et al 2006; Prosser 2006b; Coleman 1993), which raises questions about the link between diagnosis and the adequacy of school support.

Teachers have traditionally been excluded from ADHD debate (Ideus 1994), there are currently no specific education policies or additional resources for ADHD in Australia (Prosser 2006a; Prosser et al 2002) and there is a mismatch between policy and the needs of students with ADHD (Atkinson et al 1997). Given this situation, teachers are left to find their own responses to these behaviours, often with limited knowledge, resources and training (Kos et al 2006; Prosser 2006a; Prosser et al 2002; Reid et al 1994). Concerns about a gap between education policy and service provision for ADHD have been raised internationally (Bussing et al 1998; Hazell et al 1996; Damico et al 1995) and nationally (Prosser et al 2002; Atkinson et al 1997) and suggest a situation where the inability of schools to respond to student need can encourage low income parents to seek medical responses. This occurs because Australian parents who cannot afford the full range of multi-modal treatment for ADHD (including educational support) can access medical services through Medicare bulkbilling and the listing of ADHD drugs in the Pharmaceutical Benefits Scheme (Prosser 2006a; Taylor et al 2006; Prosser et al 2002; Prosser et al 1999; Atkinson et al 1997). Potentially, the lack of support for teachers and schools (and from teachers and schools) can contribute to more drug use for ADHD.

ADHD & schooling

ADHD also cannot be separated from a contemporary crisis within Australian schooling; even though the commentators cannot agree over what the crisis is and who is responsible. Conservative commentators point to poor basic numeracy and literacy levels as well as low levels of subject specific knowledge to demonstrate declining standards in schools. Meanwhile their progressive counterparts point to stubbornly low retention rates and widespread student disengagement to argue that there is a growing chasm between curriculum offerings and the diversity of contemporary students' lives. The result is a situation where Australian teachers work against a backdrop of struggle between these advocates of 'traditional' or 'progressive' approaches (Hattam et al 2005). As each skirmish plays itself out in the media, a crisis in Australian schooling has been constructed (Donnelly, 2005; 2004a; 2004b) with the finger of blame swinging swiftly between individual student 'deficits' and the pedagogy of the 'inadequate' teacher.

The concerning aspect of such a dichotomy of deficit is that it ignores the social and institutional influences that shape student success in schooling. We are encouraged to ask why students fail in school and society, but not to ask how school and society may fail our students. For instance, popular constructions often present adolescence as a time of biologically driven behaviour, incompetence, hazard and liability, which evokes fear, demands control (Beane 2005; Cormack 1996), and requires adolescents at risk and as risks (Carrington 2006) to be protected from themselves for their own good (Sapon-Shevin 2005). Such views, by mobilising populist constructions of raging hormones and 'at risk' behaviours can mask a failure of traditional pedagogy and school institutions to respond to the ever-growing diversity and ability of middle school students (Carrington 2006; Brown et al 2005; Sapon-Shevin 2005; Duncan-Andrade 2004; Knobel et al 2003; Cormack, 1998). In the volatile context of contemporary Australian schooling, there is a danger that the well-intentioned rationale for middle schooling (with its emphasis on the support of adolescent needs (Barratt 1998; Braggett 1997; Cumming 1993; Eyers et al 1993)), will become a deficit view that feeds on contemporary social, political and economic anxieties (Saltman 2005; Chadbourne 2001; Cormack, 1998).

Another example of how we may be failing our students is in the Commonwealth Government's support for an individual deficit rationale in the funding of student needs. Where once school failure was understood as a social construction and a form of social oppression (Slee 1995; Barton et al 1992; Oliver 1990; Bart 1984), school failure is increasingly understood as an individual tragedy, with policy targeting treatment for the effective functioning of the individual With policy defining educational need according to performance against narrow measures of literacy and numeracy, the social influences on poor educational attainment become harder to identify (Comber et al 1997; Thomson 1997). The result is a situation where the shared impact of socio-economic disadvantage on learning is obscured and depoliticised by the shift from an emphasis on equity to an emphasis on individual deficit (Lingard 1998). Such a political approach appeals to a one-sided conception of 'mutual obligation' and downplays the role of the school institution in constructing learning and behavioural difficulty categories as well as the inadequacy of school response. There are few places

where these struggles are more evident than in the case of ADHD; which is the visible tip of an iceberg of tensions currently experienced in Australian schooling.

Although many teachers naturally resist deficit views of adolescents, the sheer weight of these constructions from within popular culture sees many respond to adolescence with increased surveillance, back to basics teaching and an emphasis on counselling/pastoral care (Sapon-Shevin 2005; Cormack, 1996). Clearly, these representations have an effect on the institutions that adopt them (e.g., middle schooling) and also on how adolescents are understood and treated in classrooms, schools, and the community (Cormack, 1998). With the greater demands presented by ADHD and lack of support for teachers in schools, many teachers are left with only deficit popular constructions to inform their actions (Graham 2006). Further, the tendency within popular culture to construct diverse (and particularly poor) adolescents as problems (Cormack, 1998) may link with the greater use of traditional pedagogical and behaviour management responses to ADHD by teachers and school communities (DuPaul et al 2006; Kos et al; Slee 1994). However, research shows that such approaches to ADHD do not suit students well (Prosser 2006b).

ADHD also dovetails with efforts to locate educational problems in the individual (Slee 1994) by focussing on student behaviour management rather than the behaviour of school management (Prosser 1999). This is an example of the social construction of educational difficulty as behavioural and learning problems (Slee 1995). Too often the actions of the student are the centre of attention rather than the changing conditions within modern capitalism and the 'welding' of education on to the economy (Smyth 2001; Smyth et al, 1998). Such a perspective presents the higher prevalence of ADHD in lower socio-economic areas as a result of trends toward marketisation and standardisation in schooling (Ladwig et al 1998; Smyth et al 1998). As Connell et al (1998; 1994) argued, working class families have work goals, life interests, social mores and 'cultural capital' (Bourdieu 1984) that are at odds with the practices of middle class schools (e.g., the competitive academic curriculum), which place students from these families at a growing disadvantage as they proceed through schooling. In other words, as standardisation puts the squeeze on education, some students are being squeezed out; which raises the question of what happens to these students? In the case of ADHD, the label can not only account for why hyperactive students fail to meet behavioural standards and inattentive students fail standardised tests, it also provides drug treatment that can help students adhere to these standards. In doing so, there is little onus on educational institutions to question the status quo or their complicity in the difficulties students face.

Further research is required into why lower socio-economic areas experience higher rates of ADHD diagnosis and drug treatment in Australia. However, as the above discussion highlights, it is important that this research go beyond asking just medical questions and discovering medical answers (Prosser 2006a). The implications of a number of educational factors must also be considered, such as:

- the development of the ADHD diagnostic criteria as a variation from the 'norm' of a white, middle class, English speaking boy (McHoul et al 2005; Zentall 2005);
- the development of the ADHD diagnostic criteria against traditional pedagogies and assumptions about mainstream classrooms (Cooper 2005);
- the few available examples of alternative pedagogical responses to ADHD (Prosser 2006c);
- the amount of time spent by students with ADHD in schools each day (Prosser 2006a);
- that schools are the major site where the social construction of ADHD occurs (Kos et al 2006; Taylor et al 2006; Cooper 2005; Zentall et al 2005; Sax et al 2003).

Due to these factors, considerations of ADHD cannot be separated from considerations of schooling.

Having presented some insight into ADHD diagnosis and treatment from a sociological perspective, this paper will now refine its focus to educational responses and consider the limitations of traditional approaches to ADHD before exploring how negotiated and life-connected pedagogies might impact the engagement of students with ADHD.

Students speak about ADHD & schooling

A major idea in this paper is that past responses to ADHD have been too individual, medical, deficit-laden and incomplete. Further, since the diagnostic criteria for ADHD are based on assumptions around traditional pedagogical practices and active/engaging pedagogies have recently shown some success with ADHD students (DuPaul et al 2006; Kos et al 2006; Cooper 2005; Zentall et al 2005) issues of pedagogy cannot be left out of responses to ADHD. One such consideration can be found in a doctoral research project into student experiences and educational interventions in the middle years of schooling (Prosser 2006b) which was conducted as part of the requirements for a Doctorate of Philosophy at the Flinders University of South Australia.

The project used qualitative research methodology, and in particular critical, narrative and post modern research methods. Data collection occurred at two sites in Adelaide, South Australia, and one site in Lincoln, Nebraska. In total, twelve teenage male participants were involved in a detailed qualitative study involving over one hundred hours of interviews and narrative production. Adolescents were selected to enable greater critical reflection on the experience of being labelled, their trajectory through schooling and links between ADHD and society. Contextual information was also obtained from interviews with parents and teachers. The transcript data was coded thematically and synthesised into a series of narratives, which form the basis of the following findings into student perceptions of ADHD, pedagogy and school response.

In late 1998, the only major study on student perceptions of ADHD was published in the United Kingdom (Cooper & Shea 1998). It reported that ADHD was a real social (as well as physical) category in the minds of students, and that ADHD was experienced as a stigmatising label in schools. In comparison, the doctoral project (Prosser 2006b) found that the label had little stigmatising effect on teachers or peers at school. The study noted the label's significance to parents and teachers, but found the label to be of lesser importance to the students. On occasions, some teachers or peers would make comment in reference to medication use, but the students felt largely that they were treated according to their behaviour, and explained that once teachers knew them as an individual the label ceased to be a problem. However, participants explained that ADHD came in varying severities, which had varying levels of stigma, with theirs being 'mild':

> Daniel: "So anyway like I was ADD, but just mild, cause it comes in different levels. Like the kids you see on TV going ape and smashing up the house and their parents then you get down to the lower levels like where I am where it is just concentration and that... and even I still have a lot of problems... but not anywhere as big as someone who smashes up things, or wrecks the house. But most people don't know that cause like they seem to think it's just another name for problem kids" (Prosser 2006b, p.194).
>
> Charlie: "What I hate worse is people like on *A Current Affair* and shit like that… they talk about what ADD is and everything but they don't have… they don't have any conception of what it's actually like… its exploitation… make a note of exploitation. Oh yeah, the media should know that it exploits only the very severe cases with medication non-compliant children. Stop going for the ratings and take time out to actually explain what ADD is and the background on it and that not all cases are severe" (p.140).

Perhaps the most fascinating aspect of the data in relation to this issue is the manner in which most participants found space within (or even reformed) the dominant ADHD conceptualisation to assert their own individuality, identity and needs. For educators, a sensitivity to the active resistance and changing identity of the young person must be considered when responding to ADHD.

While students disliked the popular construction of ADHD, 'mild ADHD' was a compromise because they saw diagnosis and treatment as a means to behavioural support and educational opportunity.

> Ben: "I never learnt anything in primary school... cause I never used to do anything... I had ADD but no-one knew what that was..."
> BP: 'So now you're trying to catch up?'

Ben: “Yeah, I’m still in reception here man...” (p.100).

Daniel: “What’s hard is sometimes you don’t know like... how to behave for one teacher what the teacher expects, they might expect somethin completely different to another teacher. Like you may have one teacher that is really laid back and easy going and treats you proper so you treat them proper... then you got other teachers and it’s like walking into the army, they’re there to teach and you’re there to learn and sit there and do what they say no matter what happens. Kids with ADD can’t cope with that they like... I don’t know if I am speaking for all kids, but I always had a real authority problem as a kid, I hated authority, I couldn’t take someone else telling me what to do, cause I thought I was doing it a better way. But now I just work hard and take my medication and my grades are improving” (p.196).

BP: ‘What parts of your life have nothing to do with ADD?’
Billy: “School is the only place where it makes a difference” (p.187).

The doctoral project also confirmed the perceptions of students, parents and many teachers that medication was primarily a means to help a students conform to the expectations of school institutions (see Slee 1995; 1994).

Cooper & Shea (1998) noted the importance of student perceptions of ADHD in their sense of control over the disorder, where a strongly biological model was debilitating, while a more contextual understanding left them feeling in control. The students in the doctoral project held strongly to a biological explanation, but explained that as they became older they used medication more selectively as a tool to deal with stressful situations:

Gary: “I always need them [medication] to make the right choices… so I can think that if I do that then that gets me in trouble. If I don’t do that, then I won’t get into trouble. I just don’t take them sometimes cause I don’t want to’.
BP: ‘Why not?’.
Gary: “Cause they don’t work and I don’t like taking them all the time, but I don’t like it when I’m off medication or it’s not working… I think I’m embarrassing myself…”
BP: ‘Are you on your medication now or not?’
Gary: “Well, no… I haven’t needed anything for the last two terms, except for exams and that” (p.210).

Interestingly all the students in this project emphasised the role of medication in enabling them to think first and make a choice:

Jacob: “Medication sort of lets you make a choice… for me it’s important to concentrate and start work… it’s important at school but after that I think it’s actually a hindrance because it seems like I’m more bored and more depressive and depressed without medicine. You see when you’re on your medicine, you’re more depressed... ” (p.220).

BP: ‘Okay, well how did the medication help?’
Billy: “Well at first you don’t know what ADD is like... even when you’ve had your tablets it doesn’t stop you from doing it. It just like helps ya a bit, cause all you want to do is get up and move around or fidget, or something like that... it’s just hard to sit there and do your work... it’s weird”.
BP: ‘Does it make you feel different?’
Billy: “I feel like when I have them they make me work and do as much as I can. Like I write and write and write and write... but if I don’t take them, I do four lines and then think ‘what am I doing this for?’... I suppose it doesn’t really take it away it just gives you the capacity to choose…” (p.187).

The Cooper and Shea (1998) study found that a ‘striking feature of these student interviews is the almost universally shared desire to behave in socially acceptable ways and succeed in school’ (p. 46). The doctoral project also revealed a common desire amongst students to do better at school even though they were quite clear that there were contextual constraints making their choices more difficult.

BP: 'So you have said that if school was different and you didn't have to do boring sit down stuff, and you did more active things, like you did things instead of talk about it or write, that would make it easier for people with ADD?"
Billy: "Yep. Cause you can't sit still and focus, you just feel the need to be up and moving all the time". (pause)
Billy: "I guess there isn't really a way, otherwise they would have thought it up and used it by now. It's just been the same system of schooling since there has been school, sit down and write, add and subtract..."
BP: 'So you'd have to change the system?'
Billy: "Yeah".
BP: 'And they can't change the system?'
Billy: "Nah, it costs too much and they wouldn't want to anyway cause it's up to the individual to change… you can't change school to make it fit everybody" (pp.189-190).

Both the Cooper & Shea (1998) study and this project confirmed that ADHD diagnosis was seen as a means to work towards their desire to do well in school. The doctoral study also reported that medical treatment was not enough for the increased social and academic demands of secondary school. As students progressed through schooling problems emerged, particularly as pedagogies shifted from the student-centred and hands on approaches of primary school to more content driven and passive learning styles of secondary school.

Recently, Cooper (2005) proposed new pedagogical approaches to ADHD that more closely align with the typical characteristics of the disorder. Cooper argued that teachers 'type' students quickly and that these professional assumptions should be harnessed to develop new pedagogies that would assist students. Examples of the pedagogies he proposed include more positive feedback to students, less passive work, more verbal activity and short but clear instructions. These proposals would seem reasonable given the difficulties the students in the doctoral project expressed with maintaining interest, obtaining the help they needed, understanding complex instructions, and keeping up with the pace of lessons in the secondary school context.

BP: 'So... are there things they do to make it easier?'
Billy: "Yeah, give you more of a go... if I do something little they won't tell me off for it as much as they would someone else kinda thing, like they understand and that".
Billy continued: "Some teachers, like drama teachers, are heaps good, and like y'know how some students pay out teachers and that kinda thing, and the drama teachers are good to the students so the students treat them heaps well... so they can joke around like that".
BP: 'What else?'
Billy: "They shouldn't rush me… because to focus I need to slow down and to take it easy and that's really, really …"
(Billy's voiced petered out)
BP: 'In what sort of situations?'
Billy: "Oh like if I need to write something down really quickly, um... and I don't understand and he needs to use the board again and rubs out what's already there… well, like in classes right, he's been giving me so much crap and stuff and like just spewing at me all the time for absolutely nothing, and he yells at me to do my work... and I say I don't know how to do it and I need help... like I don't know how to do the question... not that I want the answer... I just can't work it out... and he goes 'No, I'm not giving it to you... shoo fly shoo', and then he goes 'Well aren't you a stupid little boy'" (pp.187-8).

However, there is a danger in Cooper's approach that the acceptance of 'ADHD characteristics' as the basis of pedagogy could (in the contemporary Australian schooling climate) strengthen the acceptance of the popular deficit constructions of adolescence in middle schooling (Cormack, 1998) and reinforce the traditional pedagogies and notions of behaviour management against which the ADHD diagnostic category was formed.

More recently, DuPaul and Weyandt (2006) reviewed research into a range of pedagogical responses to ADHD. They found that traditional punishment, negative behavioural sanctions, extensive verbal instruction and note taking are not successful with students with ADHD. All of these findings are confirmed by my interviews with students in the doctoral study, with choice, using token economies

and providing more active lessons showing some signs of success. Meanwhile, DuPaul and Weyandt report that attempts to modify tasks, specifically teach rules and using computers have anecdotal support (which is further confirmed by the responses of students in the doctoral project), but little research-based evidence. Importantly, they note that often the challenge with ADHD is not a student's inability to understand information or rules, but it was an inability to perform or act on this knowledge. As a consequence, pedagogical or behavioural strategies that took a remedial approach were not successful. This insight was strongly reinforced by the experiences of the students in the doctoral study who found many of the conventional school interventions ineffective. Typically the students resented such interventions, saw them as condescending and resisted them.

> Daniel: 'First thing at the start of the year, I find out straight away that me and four other students are being made to sit down the front so the teacher can keep a watch on us... and we had to earn these little blocks for being good so that we could go out at recess and lunch, and I just thought 'this is bullshit'. Every time a teacher gave me a hassle like I'd give her one back twice as bad... and that didn't work out for me at all cause pretty much the same thing happened the next year... and I resented that and refused to cooperate" (p.193).

Too often remedial strategies were used that assumed that the challenge was cognitive rather than social, environmental or performative, and that ironically students with ADHD were passive receptors of these interventions.

In summary, three important insights for educators emerge out of the doctoral project considering perceptions of students diagnosed with ADHD. Firstly, it would appear that the challenges these students faced had more to do with schools not understanding how they work than their not understanding schoolwork. Secondly, the neglect of academic and social needs through an emphasis on medication in primary years often saw significant needs emerging in the middle years of schooling. Finally, students with ADHD inform us that traditional pedagogies and remedial intervention strategies are not viewed as successful in engaging them nor supporting their learning needs and sometimes elicited greater resistance.

Redesigning pedagogies & ADHD

The last part of this paper documents early research findings from a three-year Australian Research Council research project in ten schools within Adelaide's northern urban fringe (entitled *Redesigning Pedagogies in the North*)[2], which aims to work with teachers to redesign their pedagogy to better connect student lives with their learning. The northern urban fringe of Adelaide emerged throughout the fifties and sixties around the satellite cities of Elizabeth and Salisbury. It was built using affordable housing and cheap living costs to attract workers and large companies around a focus on motor vehicle manufacturing. While initially profitable, the Recession of the early nineties hit the manufacturing sector hardest in South Australia and Victoria (Megalogenis 2006) and had devastating effects on income and employment in Adelaide's northern urban fringe, with some now labelling the northern suburbs as Adelaide's 'rustbelt' (Thomson 2002) due to the region's high levels of unemployment, underemployment and poverty.

Interestingly, the diagnosis and drug treatment of ADHD sky-rocketed in South Australia in the years immediately after the Recession (Prosser 2006b; Atkinson et al 1997), with most of this growth being in lower socioeconomic northern and southern regions of Adelaide (Prosser et al 1999). In 1998, over ten percent of all metropolitan young people treated with psychostimulants for ADHD were in a cluster of six northern suburbs with another five percent in four scattered southern suburbs (Prosser 1999). When standardised for youth population the northern urban fringe had between three and four percent of the youth population treated for ADHD with one suburb having over five percent. This is in comparison to a metropolitan average of just over two percent (Prosser et al 1999). Thus, the region

[2] The project commenced in late 2004, involving over a thousand students and thirty-two teachers.

that is the focus of the *Redesigning Pedagogies in the North* research project has the highest rates of ADHD diagnosis and drug treatment in South Australia.

Project evaluation & ADHD
One way to evaluate the discoveries of the *Redesigning Pedagogies in the North* (RPiN) project is to collect data on the general impact of changed pedagogy on all of the middle years students in each teacher's focus class. However, given the prevalence of ADHD in the northern region and it being amongst the most extreme behavioural and educational deficit categories attributed to students in the middle years of schooling, another approach is to identify the impact of changed pedagogy on the students who are most disengaged and vulnerable to deficit views. Early roundtable discussions with teachers involved in the RPiN project indicated that ADHD was a significant challenge to their teaching. They reported that the challenges associated with ADHD are often experienced as barriers to students completing work, with these students being amongst the most disengaged in their classes. This is confirmed by research showing that students with ADHD struggle with academic rigour through lower levels of passive engagement than their peers (Vile Junod et al 2006) and experience difficulties finishing work (DuPaul et al 2006). However, research shows that adopting pedagogies that are engaging (DuPaul et al 2006; Kos et al 2006) and that see the characteristics associated with ADHD as opportunities rather than deficits has potential for improved learning outcomes (Cooper 2005) as does providing opportunity to show success in life outside of school (Zentall et al 2005).

In response, a case study was conducted within the RPiN project that focussed on students with ADHD and their experiences of redesigned pedagogy. All thirty-two participating teachers were invited to specifically discuss the impact of their changed pedagogy on students with ADHD in their focus class. Four teachers volunteered for qualitative semi-structured interviews that sought to record narratives of teacher and student experience. One teacher withdrew from interviews due to the premature birth of her child, while another teacher was unable to participate because his school transferred the two students with ADHD in his focus class to a behavioural support school just before he introduced his redesigned pedagogy project. Interviews with the two remaining teachers were held in October 2006 and each interview lasted for approximately two hours. Student identities were kept confidential from the researcher and ethics considerations prevented interviews of students with ADHD. These interviews were typed as transcripts, were coded thematically and it is this data that forms the basis of the following findings.

Teachers speak about ADHD & pedagogy

The two participating teachers responded differently to the RPiN project's challenge to build middle schooling curriculum and pedagogy that incorporates 'funds of knowledge' and student 'lifeworlds'. One teacher sought to focus on using student lifeworld resources as curriculum content, but did not see the need to design new pedagogical approaches for this new curriculum content. In contrast, the second teacher saw curriculum and pedagogy to be fused in such a way that the use of lifeworld resources for curriculum content demanded the design of pedagogies that catered for this content. The responses of students with ADHD to these two approaches were very different, and while not generalisable to all students with ADHD, they do suggest the need for further research in the field of ADHD and life-connected pedagogy.

Case Study 1 – Researching family and local histories
Teacher 9[3] had one student in his focus class that had been diagnosed with ADHD and one student that he believed had ADHD and was not diagnosed. While the perceptions of teachers in pedagogical responses to ADHD is important (Cooper 2005), the issue of official and unofficial diagnosis is a problematic and contentious one (Prosser 2006a). For this reason, I will discuss the two students separately although in the view of this teacher a distinction was not made.

[3] This is the identity assigned to this teacher by the RPiN project to protect confidentiality.

The activity planned by Teacher 9 was in the Society and Environment learning area and involved students researching their family and community history (in the process developing research, interviewing and internet searching skills). The teacher saw that this first part of the research activity had some impact on the student who had not been officially diagnosed with ADHD:

> Teacher 9: "Well he reacts in his usual way most of the time… mucking around, kind of trying to get a reaction out of other people and things like that, but there have been instances where you could see him asking questions, or getting frustrated with not knowing enough about his family, but then when I ask him specific questions his response is 'Oh, can I include that? Is that what we're supposed to be doing?' and he hasn't made that connection…
>
> "I'm thinking of one example in the class and he made the connection and he went 'Oh!' and I don't think he had any behavioural issues after that for that lesson. It had gone by the next day, and we were back to square one, but [we had] at least the next half and hour."

Implied in this statement is Teacher 9's expectation that learning and passive behaviour go together. When asked to clarify what he meant by 'behavioural issues', he listed walking around the room, throwing things, calling out to other students and trying to get a reaction out of other students. In relation to these behaviours, Teacher 9 felt that the family history activity had some success with this student.

Meanwhile, Teacher 9 felt he had far less success with the student officially diagnosed with ADHD. He struggled to describe examples of engagement on learning, although he noted one occasion where the student "sat there for a whole lesson and wrote notes" and another where he "got him onto the computer and internet and he printed off a history… and was note taking and he seemed focussed on that". Instead, he discussed his relationship with the student and the student's need for structured teaching.

> Teacher 9: "I probably haven't been confronted with as much difficulty [with him] as lot of other people at the school… Maybe I've made a connection with him I'm not aware of, maybe he sees me differently, but he seems to listen to me more than others.
>
> "I guess trying to relate to him one-on-one helps. He seems to want to do his own thing and it's usually never in line with what I want, and usually never in line with what the other students in the class want either.
>
> "It helps for him to know exactly what's expected of him at every stage, and how I want him to go about doing it. There's a lot of talk about letting kids learn on their own and in their own way, but given the chance, he won't do that, he won't take in upon himself to do… he likes to be told what he needs to do, how he needs to go about doing it… and have it laid on the line."

Although the content of the curriculum sought to be student centred, comments such as these suggest that the pedagogy the teacher feels is most successful (at least for this student) is strongly teacher centred. The teacher explained that he did not feel that his change in the curriculum was making any difference rather it came down to the relationship or "specific interaction that you have" with the student that made the difference.

> Teacher 9: "One thing, I tried to be firmer with him. I don't know what all the philosophy about students [with ADHD] is, about how they learn, but I've tried to be firmer with him in my interactions… but also within that try and be a little bit more lenient and understanding and accepting… as in 'Yes, you did wrong, you know what you did wrong', and I'll talk to him about it and say 'Try and think of some other ways'."

Teacher 9 had doubts about the student's interest or ability to conduct interviews about family and local history or "to connect what happens here at school with his outside life".

> Teacher 9: "It seems to be you can have a tiny bit of success in a lesson by going about things in a certain way... and those ways sometimes change, and it's sort of like feeling the water to see how to react to him in some ways… There's not a great deal of things to work with this particular one."

And Teacher 9 felt that his redesigned project had made little difference to this situation.

Case Study 2 – Community & lifeworld learning
Teacher 31 identified four students in her focus class, two of whom had been diagnosed and medicated for ADHD, with a further two labelled by their parents using the diagnostic checklist. The teacher was sceptical of the diagnosis of the latter two students and reserved most of her comments to the first two students who were recognised by school records. For this teacher, one of the most significant things about ADHD was the diversity with which it was experienced by the two students:

> Teacher 31: "Well their behaviours are quite different, like one of the students with ADHD is all over the place, and he is quite illiterate, but that's mostly because of how he's been managed before, so he has a very explosive temper, he's quite Tourettes.
>
> "[The second student] he's very bright, and very capable, and very articulate, so he's this huge opposition to – these are the two medicated boys – he's in huge opposition to the first student I was talking about, and he loves community stuff because he loves being an expert, so he relates to that very well, but having said that he relates well to anything that you place in front of him. He works quite well independently, he likes to produce his own bits of work, and he really enjoys negotiated learning, and that's not me saying 'How would you like to do this?' it's 'Teacher 31, I've got this idea …'.
>
> "[Another] is a child whose mother has diagnosed him with ADHD, and he doesn't sit still, doesn't like doing any work, constantly chucks it and says 'This is too hard'. He basically demonstrates two-year-old tantrums any time you look sideways at him, and expect him to complete tasks; very disruptive in the sense that he will interfere with other kids' work, and the more that you say to him 'Do you understand what you're doing?' 'Yep, but I'm not doing it', he'll just do a huge throwing things around the class and storming out and slamming doors etc.
>
> "The other one is a female and she's a non-attender, which makes it difficult to comment. And there's actually a whole lot of different issues with her, so it's – can I say 'mental health issues'? She's extremely obese, she's a kid who can't stop interfering with other students, and I'm not convinced at all that she has ADHD, I think she has a whole range of other mental health issues.
>
> "In my experience, just because they have the label of ADHD, it's not the same, I mean there are some common behaviours that they might have, but for a lot of them it's their specific, like their experience of ADHD is quite different to somebody else's, and I don't know if that's because of how family relates to them and the experiences that they've had at school, and relationships that they've had with other people, so I think to make it more successful, you've really got to make an effort to work with them and get to know them, and I think that's how you build successful people."

As for teaching approaches, these varied according to the student. For the first student she explains:

> Teacher 31: "I think he's been left to his own devices quite a lot because he is very difficult to manage. My experience with him is to insist that he be in class, that he attempt work, or get someone to in to sit with him or get him to choose a classroom peer that he would like to sit with, and he's rarely out of the classroom now".

Picking up on a research finding that students with ADHD explain that they are able to make choices about their behaviour, but medication makes the choice easier (Prosser 2006a), Teacher 31 had introduced a successful strategy with this student:

> Teacher 31: "One of my students, who has been diagnosed with ADHD, is really interesting. He's like, you love him to bits but he can really make or break your day, depending on what his behaviour is like in the morning, but often he uses the excuse about 'I've just had my medication' or 'I have ADHD', or he carries on like, you know, like a pork chop. Anyway after having read the chapter about the medication and what it does to kids, and the fact that, you know, it doesn't cure ADHD but it helps them make choices about their behaviour, he was acting up one day and I said to him "I know your secret" and he looked at me and said 'What?' and I said 'I know about what medication does to you, it doesn't stop your ADHD but it helps you make choices, and currently you are making very bad choices about what you're doing', and he sort of, just sort of looked at me with a cheeky grin, and I swear to you that when I now say to him 'When did you have your medication?' and he'll say 'Oh, such and such a time ago', and I said 'Well, now you're just making choices, and you're making really inappropriate choices that will send you to the office', and his whole attitude to work and attempting work has changed. It's still not brilliant, but it's much better than what it was, and in fact the school counsellor said to me the other day about 'I can't believe that he sat there and did that, what's happened for him to change so dramatically?' and I really think it's because of the conversation where I said to him "I know what's going on inside". Sometimes he still goes to the principal and because I spoke to my principal about what his little secret was, the principal will say 'Well, I know you have to make a choice' and then he'll resettle, and he's actually making attempts at work, and he's probably, his skills aren't as bad as we initially thought they were, but now that he's more settled and getting on with tasks, he's actually demonstrating that he's probably more capable than what we initially thought."

One consequence has been more success this year with her community pedagogy and lifeworld project. This project seeks to:

> Teacher 31: "…do community learning; I like taking them out, by getting them to look at the positive aspects of the area that they live in, but knowing that there are parts of the community that other people consider undesirable, and they consider undesirable, and helping them to understand how they can go about making changes in their community to make it a more positive place for them to be in… we're part of the Human Race project, which is a health and wellbeing project, where we are devising a mapping activity where the kids go out into the community and talk about how they get to school and the routes that they take to school, and they'll take photographs of places of significance to them, so it's sort of a good matching up between the two."

For the first student, this project has seen some success:

> Teacher 31: "This year he is producing product, and that's mostly because it's, you know, I've done the critical, the explicit teaching of it, and they've applied some of the skills through an independent research project on community and place which he initially didn't want to do, but then once … what I did with him was sat down and said 'Right, here's what you've decided to research, let's think of some questions', and he thought of the questions, and I said 'OK, they're really good questions. Now what you can do is go and answer those questions.
>
> "Now he has latched on [to the community project] like you wouldn't believe."

Teacher 31 explained that there had been a significant change in his levels of engagement and for the first time this year she was starting to see outcomes in work output and skill development. She also

noted that this success had flowed over into other learning areas with the student attempting more work generally.

Engaging the second student was far less difficult:

> Teacher 31: 'Well the competent ADHD student, I don't have issues with engaging him because he engages himself with this work.
>
> "But mostly at some level, they opt in, they opt out, but I think the community stuff is successful with them because it's stuff that they know, and that they know more than me about."

Part of this, in the view of Teacher 31, was that the use of content and approaches familiar to the students enabled them to put more energy in succeeding in other areas where they had difficulty:

> Teacher 31: "So if you're using the community to drive curriculum, they're not having to engage in lots and lots of new learnings and then apply the thing that you want them to do, it's actually something that they know so you're freeing up their – well this is a very simplistic way of saying it – but you're freeing up their working memory in order to produce other outcomes.
>
> "I think that's why, in general, the community stuff works, is because that works for every kid, but it's also that thing about, you know, "This is what I know and this is how I can apply it". It's the same with me, like if you ask me to explain to you quantum physics, no way I could do that because I don't know it, but if you ask me to explain workings in my classroom, that's my life world."

In summary, it would seem that changing curriculum content to connect student lives to learning can create sparks of interest for students with ADHD, but engagement requires changes to pedagogy as well as content. In line with the model of pedagogy put forward by Lusted (1986), greater engagement can occur within a strong relationship between teacher and student and life knowledge. However, it is also possible that part of a student's potential success lies in that the student's mastery of the content allows them to function in an environment rather than being overwhelmed by numerous other demands (Reid et al 2002) to focus on new areas of learning and skills.

Conclusion

Due to the small number of participants and the preliminary nature of interviews, this paper does not claim generalisability in its findings about ADHD, pedagogy and school response. However, it does suggest a need for more research in the area of ADHD and engaging or 'lifeworld' connected pedagogy. With this in mind, the author plans more comprehensive research into the implications of progressive pedagogies for students diagnosed in deficit according to traditional pedagogical approaches. Meanwhile, the paper suggests that such efforts should be seen in the context of work by Lingard and colleagues (Lingard et al 2000) who note that as the Federal Government has retreated from general and redistributive funding for education (at a time when the needs of those on the edge have increased with globalisation), we are now faced with an urgent need for new social justice policies that include rather than exclude. To do this, we need to look closely at how factors such as class, gender, ethnicity and disability are coming together in complex ways to create new identities. When we understand these factors, politicians, policymakers and educators can then form socially just approaches that are targeted to help teachers support, engage and intellectually challenge their students – and not just focus on controlling or excluding them until the end of the lesson (see Slee 1995; 1994).

It is my view that ADHD represents one such coming-together of factors. It is an identity that needs to be understood, not just as a medical theory but as a social phenomenon and a pedagogical challenge. This paper has reported on research that suggests that current educational approaches to ADHD are

limited by the pedagogical assumptions that underpin the diagnostic category, while pointing to evidence that connected and rigorous middle schooling pedagogies offer potential for engaging students and unsettling labels of deficit such as ADHD. With this in mind, ADHD provides not only a window into contemporary social and educational priorities, but also an opportunity to move toward pedagogies that foster a more socially just society.

References

Atkinson, IM, Robinson, JA & Shute, R 1997, 'Between a rock and a hard place: an Australian perspective on education of children with ADHD', *Educational and Child Psychology,* vol. 14, no. 1, pp. 21-30.

Barkley, RA 2006, *Attention Deficit Hyperactivity Disorder: a Handbook for Diagnosis and Treatment*, Third edn, Guilford Press, New York.

Barkley, RA 1998, 'Attention-Deficit Hyperactivity Disorder: A handbook for diagnosis and treatment', 2nd edn, Guilford Press, New York.

Barratt, R 1998, *Shaping Middle Schooling in Australia: a report of the National Middle Schooling Project*, Australian Curriculum Studies Association, Deakin West.

Bart, DS 1984, 'The Differential Diagnosis of Special Education: managing social pathology as individual disability', in *Special Education as Social Interests*, eds. L Barton & S Tomlinson, Croom Helm, London, pp. 81-121.

Barton, L & Oliver, M 1992, 'Special Needs: personal trouble of public issue', in *Voicing Concerns: sociological perspectives on contemporary education reforms*, eds. M Arnot & L Barton, Croom Helm, London, pp. 66-87.

Beane, JA 2005, 'Foreword', in *The Critical Middle School Reader*, Routledge, London & New York.

Berbatis, CG, Sunderland, VB & Bulsara, M 2002, 'Licit psychostimulant consumption in Australia, 1984-2000: international and jurisdictional comparisons', *Medical Journal of Australia,* vol. 177, no. 10, pp. 539-543.

Bourdieu, P 1984, *Distinction: A Social Critique of the Judgement of Taste*, Routledge & Kegan Paul, London.

Braggett, E 1997, *The Middle Years of Schooling: an Australian perspective*, Hawker Brownlow Education, NSW.

Brown, ER & Saltman, KJ (eds) 2005, *The Critical Middle School Reader*, Routledge, London & New York.

Bussing, R, Schoenberg, NE, Rogers, KM, Zima, BT & Angus, S 1998, 'Explanatory Models of ADHD: do they differ by ethnicity, child gender, or treatment status?' *Journal of Emotional and Behavioral Disorders,* vol. 6, pp. 233-242.

Carrington, V 2006, *Rethinking the Middle Years: early adolescents, schooling and digital culture*, Allen & Unwin, Crows Nest.

Chadbourne, R 2001, *Middle Schooling for the Middle Years: what might the jury be considering?*, Australian Education Union, Southbank.

Coleman, WS 1993, 'Attention Deficit Disorders, Hyperactivity and Associated Disorders: a handbook for parents and professionals', sixth edn, Calliope Books, Wisconsin.

Comber, B, Green, B, Lingard, A & Luke, A (eds) 1997, *Literacy debate and public education: a question of crisis*, Australian Curriculum Studies Association, Deakin.

Commonwealth Government of Australia, 2004. Issues Brief 8 2004-05: *Medication for AD/HD*, November.

Connell, R. 1994. Poverty and Education. *Harvard Educational Review, 64*(2), pp.125-149.

Connell, RW 1998, 'Social change and curriculum futures', *Change: transformations in education,* vol. 1, no. 1, pp. 84-90.

Conrad, P. & Schneider, J.W. 1992, *Deviance and Medicalization: from Badness to Sickness*, expanded edition. Temple University Press.

Conrad, P 1976, *Identifying Hyperactive Children: the medicalization of deviant behavior*, D.C. Heath & Co., USA.

Cooper, P 2005, 'AD/HD', in *Special Teaching for Special Children*, eds. A Lewis & B Norwich, Open University Press, London, pp. 123-137.

Cooper, P & Shea, T 1998, 'Pupil's perceptions of AD/HD', *Emotional and Behavioural Difficulties,* vol. 3, no. 3, pp. 36-48.

Cormack, P 1998, 'Middle schooling: For which adolescent?', *Curriculum Perspectives,* vol. 18, no. 1. pp. 56-60.

Cormack, P 1996, 'Constructions of the adolescent in newspapers and policy documents: implications for middle schooling', *South Australian Educational Leader,* vol. 7, no. 6, pp. 1-12.

Cumming, J 1993, *Middle Schooling for the 21st Century*, IARTV, Jolimont, Vic.

Davis, E., Beer, J., Gligora, C. and Thorn, A. 2001, Accounting for Change in Disability and Severe Restriction, 1981-1998, *Working Papers in Social and Labour Statistics (No.2001/1).* (Belconnen, ACT, Australian Bureau of Statistics).

Diller, L 1998, *Running on Ritalin: a physician reflects on children, society and performance in a pill*, Bantam Books, New York.

Donnelly, K. 2005, *Benchmarking Australian Primary School Curricula*. Commonwealth of Australia, Canberra.

Donnelly, K. 2004a, We Can't Really Count on Calculators. *The Australian*, November 23, p. 13.

Donnelly, K. 2004b. *Why Our Schools Are Failing*. Sydney: Duffy & Snellgrove

Duncan-Andrade, J 2004, 'Your Best Friend or Your Worst Enemy: Youth Popular Culture, Pedagogy, and Curriculum in Urban Classroom', *The Review of Education, Pedagogy and Cultural Studies,* vol. 26, no. 4, pp. 313-337.

DuPaul, GJ & Weyandt, LL 2006, 'School-based intervention for Children with Attention Deficit Hyperactivity Disorder: effects on academic, social and behavioral functioning', *International Journal of Disability, Development and Education,* vol. 53, no. 2, pp. 161-176.

Eyers, V, Cormack, P & Barratt, R 1993, *The education of young adolescents in South Australian government schools: Report of the Junior Secondary Review*, Education Department of South Australia.

Giddens, A. 1986, The Constitution of Society: Outline of the Theory of Structuration, University of California Press; Reprint edition.

Graham, L 2006, 'Out of Sight, Out of Mind/Out of Mind, Out of Sight: schooling and Attention Deficit Hyperactivity Disorder', *International Journal of Qualitative Studies in Education,* vol. in press.

Hattam, R, Prosser, B & Brady, K 2005, 'Unsettling deficit views of students and their communities', paper presented at the Australian Association for Research in Education Annual Conference, Parramatta, November 28.

Hattam, R, Prosser, B & Brady, K 2007, 'Unsettling deficit views of students and their communities', *Australian Educational Researcher,* vol. under review.

Hazell, PL, McDowell, MJ & Walton, JM 1996, 'Management of children prescribed psychostimulant medication for attention deficit hyperactivity disorder in the Hunter region of NSW', *Medical Journal of Australia,* vol. 165, no. November, pp. 477-480.

Hoong, W, Houghton, S & Douglas, G 2003, 'Objectivity of boys with Attention-Deficit/Hyperactivity Disorder (ADHD) and their mothers when responding to a caricatured portrayal of ADHD', *Educational Psychology,* vol. 23, no. 5, pp. 491-505.

Ideus, K 1994, 'Cultural Foundations of ADHD: a sociological analysis', *Therapeutic Care,* vol. 3, no. 2, pp. 173-193.

Knobel, M & Lankshear, C 2003, 'Planning Pedagogy for i-mode: from flogging to blogging via wi-fi', *English in Australia - Literacy Learning: the middle years,* vol. 139, no. Summer 2003-04, pp. 78-102.

Kos, JM, Richdale, AL & Hay, DA 2006, 'Children with Attention Deficit Hyperactivity Disorder and their Teachers: a review of the literature', *International Journal of Disability, Development and Education,* vol. 53, no. 2, pp. 147-160.

Ladwig, J & Gore, J 1998, 'Nuturing democracy in schools', in *Schooling for a fair go*, eds. J Smyth, R Hattam & M Lawson, Federation Press, Sydney, pp. 15-26.

Lingard, B 1998, 'The disadvantaged schools programme: caught between literacy and local management of schools', *International Journal of Inclusive Education,* vol. 2, no. 1, pp. 1-14.

Lingard, B, Mills, M & Hayes, D 2000, 'Teachers, school reform and social justice: challenging research and practice', *Australian Educational Researcher,* vol. 27, no. 3, pp. 99-115.

Luke, A, Elkins, J, Weir, K, Land, R, Carrington, V, Sole, S, Pendergast, D, Kapitzke, C, van Kraagenoord, C, Moni, K, McIntosh, A, Mayer, D, Bahr, M, Hunter, L, Chadbourne, R, Bean, T, Alverman, T & Stevens, L 2003, *Beyond the Middle: a report about literacy and numeracy development of target group students in the middle years of schooling*, Griffith University, Nathan.

Lusted, D 1986, 'Why Pedagogy?' *Screen,* vol. 27, no. 5, pp. 2-14.

McHoul, A & Rapley, M 2005, 'A case of attention-deficit/hyperactivity disorder diagnosis: Sir Karl and Francis B slug it out on the consulting room floor', *Discourse & Society,* vol. 16, no. 3, pp. 419-449.

Megalogenis, G 2006, *The Longest Decade*, Scribe Books, Carlton North.

Moll, L, Amanti, C, Neff, D & Gonzalez, N 1992, 'Funds of Knowledge for Teaching: Using a Qualitative Approach to Connect Homes and Classrooms', *Theory into Practice,* vol. 31, no. 2, pp. 132-141.

Morrow RC, Morrow AL & Haislip G 1998, Methylphenidate in the United States, 1990 through 1995. *Am J Public Health* vol. 88, p.1121

Newmann, FM 1996, *Authentic Achievement: restructuring schools for intellectual quality*, Jossey-bass publishers, San Francisco.

Oliver, M 1990, *The Politics of Disablement: a sociological approach*, St Martin's Press, New York.

Prosser, B 2006a, *ADHD: who's failing who?*, Finch Publishing, Sydney.

Prosser, B 1999, *Behaviour Management of Management Behaviour? A sociological study of Attention Deficit Hyperactivity Disorder in Australian and American secondary schools*, Flinders University of South Australia, Bedford Park.

Prosser, B 2006b, *Seeing Red: critical narrative in ADHD research*, PostPressed, Flaxton.

Prosser, B 2006c, *Teachers needed in ADHD debate*, p. 11.

Prosser, B & Reid, R 1999, 'Psychostimulant Use for Children with ADHD in Australia', *Journal of Emotional and Behavioral Disorders,* vol. 7, no. 2, pp. 110-117.

Reid, R, Hakendorf, P & Prosser, B 2002, 'Use of Psychostimulant Medication for ADHD in South Australia', *Journal of the American Academy of Child and Adolescent Psychiatry,* vol. 41, no. 8, pp. 1-8.

Reid, R & Katsiyannis, A 1995, 'Attention-Deficit/Hyperactivity Disorder and Section 504', *Remedial and Special Education,* vol. 16, no. 1, pp. 44-52.

Reid, R, Maag, JW & Vasa, SF 1994, 'Attention Deficit Hyperactivity Disorder as a Disability Category: a critique', *Exceptional Children,* vol. 60, no. 3, pp. 198-214.

Saltman, KJ 2005, 'The Social Construction of Adolescence', in *The Critical Middle School Reader*, Routledge, London & New York, pp. 1-1415-20.

Sapon-Shevin, M 2005, 'Afterword', in *The Critical Middle School Reader*, Routledge, London & New York, pp. 521-523.

Sax, L. and Kautz, K. J. 2003, Who First Suggests the Diagnosis of Attention-Deficit/Hyperactivity Disorder? *Annals of Family Medicine*, vol.1, no.3, pp. 171-174.

Singh, I 2004, 'Doing their jobs: mothering with Ritalin in a culture of mother-blame', *Social Science & medicine,* vol. 59, no. 6, pp. 1193-1205.

Slee, R 1995, *Changing Theories and Practices of Discipline*, Falmer Press, London.

Slee, R 1994, 'Finding a Student Voice in School Reform: student disaffection, pathologies of disruption and educational control', *International Studies in the Sociology of Education,* vol. 4, no. 2, pp. 147-172.

Smyth, J 2001, *Critical Politics of Teachers' Work*, Peter Lang, New York.

Smyth, J, Hattam, R & Lawson, M (eds) 1998, *Schooling for a Fair Go*, The Federation Press, Sydney.

Tait, G 2005, 'The ADHD debate and the philosophy of truth', *Journal of Inclusive Education,* vol. 9, no. 1, pp. 17-38.

Taylor, M, O'Donoghue, T & Houghton, S 2006, 'To Medicate or Not To Medicate? The decision making process of Western Australian parents following their child: diagnosis with a Attention Deficit Hyperactivity Disorder', *International Journal of Disability, Development and Education,* vol. 53, no. 1, pp. 111-128.

Thomson, P 1997, 'Back on the borderline: the marginalisation of equity in federal schools policy', *Educational Leader,* vol. 9, no. 1, pp. 1-9.

Thomson, P 2002, *Schooling the Rustbelt Kids: making the difference in changing times*, Allen & Unwin, Crows Nest.

Vile Junod, RE, DuPaul, GJ, Jitendra, AK, Volpe, RJ & Cleary, KS 2006, 'Classroom observation of students with and without ADHD: differences across types of engagement', *Journal of School Psychology,* vol. 44, pp. 87-104.

Wakefield, J 1992, 'The Concept of Mental Disorder: on the boundary between biological facts and social values', *American Psychologist,* vol. 47, no. 3, pp. 373-388.

Zentall, SS 2005, 'Contributors to the social goals and outcomes of students with and without LD', *International Journal of Educational Research,* vol. 43, pp. 290-305.

Zito JM, Safer DJ, Riddle MA, Johnson RE, Speedie SM & Fox M. 1998, Prevalence variations in psychotropic treatment of children. *J Child and Adolescent Psychopharmacology*, vol.8, pp.99-105.

Zito JM, Safer DJ, dosReis S, Magder LS & Riddle MA 1997, Methylphenidate patterns among Medicaid youth. *Psychopharmacology Bull,* vol.33, pp.143-147.