REFRACTIONS

Spiders are Mammals: Direct Instruction in Cape York

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In 2010, *SRA Direct Instruction* was introduced across the curriculum in two remote Cape York schools, as a key aspect of social and welfare reform. There is national political interest in these reforms, which link welfare policy to State primary school education conceived as basic skills training. Reflecting the political interest, national newspapers ran the story that Direct Instruction had provided almost miraculous results after 17 weeks (Devine 2010a). Alternative approaches to literacy development in Indigenous education did not get the same sort of media attention. Noel Pearson provides the intellectual basis for Cape York social reforms, through his writing, political advocacy and leadership of organisations involved in the reforms. His ultimate goal is successful mainstream education leading to economic integration, where young people are ‘completely fluent in their own culture and the wider culture’ (Pearson 2009:57). The question posed by this vision is ‘What kind of education can produce these flexible, bicultural, working people who keep their traditions alive?’

Critical theory offers a way to explore this question, as it views the classroom as a mirror of broader social relations, and encourages teachers to reflect on their own experience (Brookfield 2005:366). The MULTILIT® direct instruction literacy program provided the template for replacing the State curriculum with *SRA Direct Instruction* in two Cape York communities, Coen and Aurukun (Cape York Partnerships [CYP] 2009:9-10; Crean 2011:13). I taught this program at Coen primary school for two terms in 2009, and was living in Coen when the school converted to a direct instruction *Aboriginal Australian Academy* in 2010. Tony Abbott, current Federal Opposition Leader, writes about his own short term experience working as a teacher’s aide in Coen and Aurukun:

> Of course, this kind of experience doesn’t make someone an expert on indigenous Australia. It should, though, provide a more direct ‘feel’ for indigenous issues than reading official documents and media reports, however insightful they might be (Abbott 2009).

My experience teaching the program led to misgivings about the method, particularly for long periods, rather than intensive remedial bursts. I
did not go to Cape York to undertake research, so ethically, legally and for privacy reasons, I cannot provide specific details about classroom activities. Within these limitations, I use my personal experience to explore the literacy aspects of the educational changes in Cape York.

Background

Welfare and school reform in Cape York

Education is a central plank of the reforms, which ultimately aim to move Aboriginal citizens from welfare dependence to participation in the ‘real economy’ (Pearson 2000:141-142). This requires comprehensive social change through school reform, alcohol bans, health improvement, economic development, training programs and income management. The reform has national significance, as they align with a new Federal approach of ‘involving Aborigines in remote communities in the real economy’ (Brennan 2007). Centrelink policies tying welfare payments to school attendance have been extended beyond Cape York’s Indigenous communities to other disadvantaged areas (Gibson 2011). School reform has not yet been extended beyond Cape York, but Pearson’s views are influential:

Governments are supporting such a reform program in Cape York which, in the absence of an alternative coherent program, should be replicated elsewhere. The program includes … the introduction of direct instruction, a method that has been proven to get disadvantaged students up to parity in literacy and numeracy, and longer school days. Federal MP Alan Tudge, September 2010 (Tudge 2010)

Despite the national significance, there has been little public analysis of these changes. Information is available from the organisations with a stake in the reforms, led by Noel Pearson (Cape York Institute for Policy and Leadership, Cape York Partnerships, Jawun Indigenous Corporate Partnerships). Pearson promotes welfare reform through his regular column in The Australian. Other columnists have used the Cape York experience to support a particular ideological position on education, within the national back-to-basics discourse: ‘Give good teachers a gold star and put the bad ones out to pasture’ (Devine 2010b), ‘Protecting bad teachers produces chronic failure’ (Hughes and Hughes 2011). There is little public information available from Education Queensland on the school changes.
Literacy is a key focus of the educational reforms

We believe literacy is the most significant and urgent of the education problems facing Cape York’s Indigenous communities. It is the foundation skill that underpins all others (Cape York Institute for Policy and Leadership [CYIPL] 2007:1).

Pearson’s view of literacy is grounded in a context where social norms have broken down, and where previous education efforts have failed. The literacy gap between Indigenous and mainstream students measured by NAPLAN is a primary driver of school reform (CYP 2009:13). While acknowledging that literacy problems are caused by complex social factors, Pearson argues that effective instruction can close this gap, based on the MULTILIT program in Coen State primary school (Pearson 2007). He consciously positions a skills-based view of literacy against critical pedagogies, arguing that Indigenous children lack ‘implicit literacy’ absorbed by people growing up in an educated family, and that the ability to read is fundamental to critique. Pearson is scathing about ‘progressive educational currents’, and leftist agendas that ‘(re)produce only lumpen, illiterate underclasses’ instead of critical thinkers (Pearson 2009:81).

Literacy plus books are what spawn critique. More revolution was fomented in the Reading Room of the British museum…than any attempt to nurture juvenile critical capacities (Pearson 2009:81).

In 2010, in a bid to improve education outcomes, two State schools, Aurukun and Coen, began a three-year trial as Aboriginal Australian Academies. These communities are quite different from each other; Coen is a small, relatively functional community in comparison with Aurukun, which made national headlines in 2008 for a complete breakdown of social standards (Australian Broadcasting Corporation [ABC] 2011). For comparison, the Family Responsibilities Commission (FRC) reports provide a snapshot of the communities in the welfare reform trial. Aurukun accounts for around 60 percent of agency notifications (school attendance, child safety, magistrates appearance) compared to Coen’s 5 percent (FRC 2010:19). Language is another difference. In Coen most children speak Aboriginal English. In isolated Aurukun, most children speak Wik Munkun, with Aboriginal English as their second or even third language. Coen school is much smaller (46 students in 2009 compared to 290 plus at Aurukun) with a high attendance rate (96.8 percent in Term 2, 2008, compared to 37.9 percent in Aurukun) (FRC 2010:27). In 2009, Coen school staff was
relatively stable, compared to Aurukun where there was a revolving door of teachers (Shaw 2009).

The 2009 Academy Business Case was a key document in gaining Queensland and Federal government support for the trial (Jawun 2011:2). It built an argument for fundamental school reform across the Cape on development work at Coen school, which is credited with Coen school’s better outcomes on several measures. These include the 2008 NAPLAN results (Table 1), high attendance, community support, and literacy improvements which saw students reading more words correctly per minute (fluency) due to the MULTILIT program in Coen, Hope Vale and Mossman schools (CYP 2009:9-10).

| NAPLAN RESULTS 2008 |  |  |  |  |  |
|---------------------|----------------|----------------|----------------|----------------|
|                      | Reading | Writing | Spelling | Grammar | Numeracy |
| YEAR 3               |         |         |          |         |         |
| Coen                 | 20      | 60      | 40       | 20      | 60       |
| Aurukun              | 14      | 15      | 10       | 0       | 25       |
| YEAR 5               |         |         |          |         |         |
| Coen                 | 29      | 86      | 83       | 50      | 71       |
| Aurukun              | -       | 0       | 0        | 0       | 0        |
| YEAR 7               |         |         |          |         |         |
| Coen                 | 50      | 100     | 100      | 0       | 100      |
| Aurukun              | 33      | 13      | 33       | 22      | 38       |


The Business Case argues that basic literacy and numeracy skills should be the focus of primary school education, with welfare reform taking care of non-school impacts on achievement. Further, it argues that all Cape York primary school children’s needs are met by direct instruction:

In Cape York, most students have multiple disadvantages needing explicit instruction from the beginning, rather than remedial programs later. Grouping by ability rather than age allows higher aptitude students to progress faster (CYP 2009:12-18).

A supply and demand model of education focuses on instruction as the central organising principle (Figure 1). Social factors (learning demand) and
school factors (*teaching supply*) both feed into instruction, which is the only learning factor over which schools have full control. In the *Academy* model, welfare reform takes care of any social factors impacting achievement. School reform fixes the teaching side, focused on ‘scientifically established methods of effective instruction’. Taken together this provides ‘the ultimate ‘No Excuses’ approach to education…based on teacher and school accountability for learning outcomes’ (CYP 2009:13:28).

The Academy model also utilises the sociological concept of cultural capital, arguing that the cultural gap which creates the middle-class learning advantage is ‘as important to close as the literacy gap’ (CYP 2009:101). Three learning domains provide a complete education: basic skills (Class), ‘cultural capital’ (Club) and traditional culture and language (Culture). The Class educational philosophy centres on developing basic skills, leading to higher learning. An extended school day (8.30am – 4.45pm) provides basic skills instruction during normal school hours, and compulsory extra-curricular activities after school. The compulsory Club domain aims to replicate the middle-class learning advantage, through ‘concerted cultivation’ in higher-order thinking skills, creativity, and extracurricular activities. Other needs are met through onsite health care and meals. Within this holistic model, the community is actively involved in education, and the school essentially becomes an instruction delivery agency:
‘SUPPLY SIDE (school)

- Teacher delivers requisite instruction
- School leader ensures teachers deliver requisite instruction
- School governance enables and holds school leader to account for delivering the requisite instruction.” (CYP 2009:15).

The term ‘direct instruction’ (lower case ‘di’) refers to a spectrum of teaching from generic procedures of scaffolding, modelling and working in small steps, through to the scripted “Direct Instruction” (DI) curriculum package developed by Engelmann and Carnine, also known as DISTAR (Rosenshine 2008). The features of DISTAR instruction are: scripted presentations, small groups (5-10 students), unison responding by students, signals to cue student responding, and scripted correction procedures for each predicted type of mistake (Binder and Watkins 1990:10). While using the same terminology, these two forms of ‘direct instruction’ have contrasting expectations of teacher skills and autonomy. Generic ‘direct instruction’ procedures need high teacher autonomy and context-based flexibility (Rosenshine 2008). DISTAR programs expect little teacher autonomy in terms of content, but rather focus on teacher fidelity in delivering the program. The teacher is trained to precisely deliver the script, hand gestures, corrections and behavioural modification techniques.

We don’t give a damn what the teacher thinks, what the teacher feels … they can hate it. We don’t care, as long as they do it.” (Engelmann in Radosh 2004).

Pearson argues that, because remote communities can expect inexperienced teachers, with a low retention rate, Cape York schools must rely on instruction as the defining factor of quality teaching, ie ‘committed teacher + effective instruction = quality teaching’ (Pearson 2009:39). A prescriptive model provides continuity, so a continually changing set of teachers can simply slot in and take over where the last one left off. The requisite instruction chosen for the academy, SRA Direct Instruction, is a scripted commercial curriculum DISTAR package with behaviourist roots in the ‘mind-as-computer’ model from 1960s cognitive science (Binder and Watkins 1990:10). It is described as a scientific method of ‘faultless communication’, which ‘leads learners precisely to a single interpretation of the instruction’, and ideally works for all learners (Grant 2007). The Direct Instruction mantra is ‘If the student has not learned, the teacher has not taught’ (Pearson 2009:89). The literacy model is skills-based, focusing on five major print literacy components: phonemic awareness, phonics skills, fluency, vocabulary and comprehension. Progress is measured by the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) fluency tests of
the number of letters, sounds and words identified per minute (CYP 2009:33).

**Critique**

**Spiders are mammals – faulty communication in the classroom**

In a critical theory approach, the teacher’s classroom experience is considered a research fundamental (Appadurai 2006). MULTILIT materials describe it as a ‘remedial reading program’, using an approach ‘effective for all reading instruction’ (MULTILIT website FAQs 2011). The Coen program used the scripted Direct Instruction teaching method for some of its elements. Students in the classes I taught were low-progress readers who spent most of their school day in the program, learning alphabetic decoding. They went through a sequence of levelled materials and internal tests, ‘graduating’ after reaching the highest level and passing benchmark tests. Some students had been in the program for a long time, unable to progress quickly and return to their mainstream classes. *SRA Direct Instruction* materials were also used as an add-on to the phonics-based program, including *Thinking Basics* and *Spelling Mastery*. My experience teaching this program raised questions about *SRA Direct Instruction* as a solo curriculum option. These questions include the assumptions inherent in the methodology, and whether its view of the teacher and model of literacy can meet the demands made of it as a central plank of welfare reform.

The Direct Instruction method assumes that the instructional design creates sequences ‘for which there is only one logical interpretation’ (Hempenstall 1996:5). This means the programs:

- … are non-categorical so can be used across student variations
- … The programs can be adapted to Australian examples and standards where required (CYP 2009:31).

**The following exchange occurred in my SRA Direct Instruction Thinking Basics class in 2009.viii**

Teacher: The rule is ‘All mammals have hair.’ Everybody say that – ‘All mammals have hair’.
Students (chanting): ‘All mammals have hair’
Teacher: Everybody what is the rule?
Students (chanting): ‘All mammals have hair’
Teacher: Who can name an animal with hair?
Student X – ‘cow’
Student Y – ‘wallaby’
Teacher: Great thinking X and Y!
Student Z – ‘spider’ (beaming proudly).
Teacher (seeing a big logic hole looming, with a hairy huntsman spider in it): Do spiders have hair?
Students: Yess!!
Z: (being helpfully specific). Yes, the X (local language name) spider has hair on his feet and on his back!

The scripted correction procedure didn’t cover explaining to 8 year-old, on-edge, at-risk, Indigenous low-progress readers, whose first language is not English, that the rule does not exclude other types of animals from having hair, and is not a definitive rule about mammals by itself. And further, that spider hair isn’t real hair because it’s part of the exoskeleton. If you haven’t taught scripted DI, it is hard to appreciate how difficult it is if the ‘predicted’ mistakes are not within the ambit of the program designers. Lessons are rapid, and teachers are trained to get through lessons on time and stick to the script, or ‘implement explicit instruction with fidelity’ (CYP 2009:59). The ‘corrections’ are part of the rapid-fire script, and intended to quickly convey to the student why their example doesn’t fit with the teacher’s. If students really don’t understand, earlier lessons are repeated. In this case that would mean more confusing examples using rules, like ‘All mammals have hair – whales are mammals’. My class often struggled with meaning in this way.

Another SRA Direct Instruction lesson sequence focused on analogies as relational pairs, in the form ‘A is to B as C is to D’.

‘A hat is to head as a tie is to?’

Aside from the urban-oriented vocabulary, this is a difficult and contrived language construction, especially for a student whose first language is not standard Australian English. Some students also struggled with antonyms many English speakers take for granted, like long/short, hot/cold, wide/narrow or slowly/quickly. If this was an ESL issue to do with relational syntax in the local languages, as a DI teacher I did not have any leeway to find out by exploring it in class. These examples show that the scripted materials assumed not only a given set of language and conceptual categorisations, but also a deeper level understanding of logical analysis principles. The confusion this led to in the Cape York classroom cannot be addressed by simply replacing words or numbers with Australian vocabulary or standards.

In the DI classroom there were many missed learning opportunities. A discussion on how the children classified animals or seasons (wet is the opposite of hot!), or hunting (dugong has warm blood, turtle has cold blood) may have been effective when the script failed. As Resnick (Resnick 2010:184) argues, guided classroom discussion of core disciplinary ideas can
give long-term retention and transfer to other disciplines. Sometimes the children enjoyed and learnt from the chanted scripts, and complied with behavioural prompts, but often they didn’t. A preordained script cannot deal with classroom moments, like a child who has climbed into a large cardboard box, throwing its contents out for attention, while attempting to staple his lips. This boy almost always resisted the scripted lessons, but one day he got up and wrote ‘Gebap’ on the board, beaming. This was ‘Give up’ (from the I Spy game we sometimes played) – phonetically correct in Aboriginal English. He had registered the sound/letter relationship from his minimal participation in the scripted DI lessons (sometimes from the box, sans stapler), and applied the knowledge. According to DI orthodoxy, that moment was ‘off script’ and wayward needing behavioural correction (for both student and teacher), but at that point what he actually needed was a teacher responsive to the moment. As Luke writes:

Specific knowledges and skills ‘named’ in the official curriculum … are remade through the lenses and practices of teachers' substantive world, field and disciplinary knowledge, then brought to life in classrooms in relation to teachers' pedagogical content knowledge and students' cultural scripts and background schemata (Luke forthcoming:1-2).

My students’ lives came with them into the classroom every day. They were the children of a generation lost to substance abuse (ABC 2011), whose grandparents and great-grandparents had been cajoled, deceived or removed at gunpoint from their homelands, as late as 1963. The students were dealing with the legacy of this history in their everyday lives, something that cannot be quickly overcome through welfare reform. We had children who could not learn because they witnessed violence, they were sick, they had no mental health support, or they had no consistent place to sleep. But as well as having problems, they had access to Indigenous cultural capital; traditional culture and languages. They all told stories very well. They were bilingual or multilingual, visually sophisticated and highly social. Both Direct Instruction tutors (myself and an Education Queensland trained school teacher) were mature age, with academic, vocational, life, parenting and other teaching and training experience to draw on. DI does not allow a teacher to draw on their own or their students’ knowledge, specific interests and backgrounds.

Research supports a balanced approach

Much of the research cited in the Academy Business Case supporting explicit instruction dates from a period when the debates between constructivist and ‘evidence-based’ approaches to reading were polarised. Most contemporary educators consider this a false dichotomy, and accept
that a form of direct instruction can be effective for developing structured
skills, like decoding in reading (Department of Education, Science and
Training [DEST] 2005:11). However, some argue that it has limited ability
to develop unstructured ‘skills’ such as comprehension, critical thinking and
interpersonal skills (Luke forthcoming:3; Johnston and Hayes 2008:110). It
is also not the only way to develop basic literacy skills. Purdie and Ellis’
comprehensive literature review for the Australian Council for Educational
Research found strategy instruction was as effective as direct instruction for
children with learning difficulties. Strategy instruction focuses on generic
strategies rather than specific skills. They concluded that teachers should not
reject constructivism in favour of purely teacher-directed methods, and
‘avoid either/or positions’ (Purdie and Ellis 2005:29-34). The National
Inquiry into the Teaching of Literacy also recommended that teachers should
have an understanding of a range of effective strategies, and know when and
how to apply them (DEST 2005:14). To sustain achievement gains amongst
at-risk students requires basics skills instruction, but also a curriculum of
intellectual demand (Luke forthcoming:3-4). Experienced educators with
Indigenous students support some explicit teacher-directed learning, but not
SRA Direct Instruction (Nicholls 2009:100; Sarra 2011).

According to Johnston and Hayes, what happens in high performing
schools is not a consequence of the instruction, but of ‘social capital’. While
the Academy model incorporates this concept, it hives off its cultivation into
after-hours activities. The school curriculum fits the characteristics of high
poverty, high diversity classrooms discussed by Johnston and Hayes: a linear
curriculum, tightly controlled by the teacher, ability groupings that ‘harden
into permanent tracks at an early age’; reteaching and more skills practice for
children who don’t thrive. This curriculum contrasts with the kind of
‘interactive learning paradigm’, which ‘people with power and resources
choose for their own learning’ (Johnston and Hayes 2008:110-123). Others
agree:

No middle class suburban parent would ever permit this kind of
cognitive decapitation of their children … poor kids get
behaviorism and rich kids get social constructionism … or skills
for the poor, knowledge for the rich (Cummins 2007).

What are basic skills? New literacies for an uncertain future

The vision for Cape York is aimed at future social and economic
participation in the ‘real economy’. What is the real economy? Governments
predict a future of uncertainties and discontinuities, and some economists say
nobody knows what the future economy will look like (US National
Intelligence Council 2008). Knowledge today is multiple-source, public,
explosive and emergent, needing argument, discussion, interpretation, self-
management and social skills (Resnick 2010:184-186). Capacities needed for
the new economy: ‘creativity, intercultural communication, community
service, collaborative work, problem solving and digital multiliteracies’ are
‘beyond the reach of traditional testing’ (Luke 2008:13). A question for ‘new
literacy’ educators is how to prepare students for an unknowable, digital
future.

Discourses and texts are forms of capital for exchange in these
economies. Who gets access to them, who can manipulate and
construct them, who can critique, refute, second guess them are
the key educational issues of the next century (Luke 2000:2).

Despite dismissing ‘progressive approaches’ to education, Pearson’s
thinking comes close to ‘new literacy’ concepts, as he situates literacy within
the political economy. Pearson also rejects a reductive approach to identity,
proposing ‘layered identities’ where a person has multiple identifications
with cultural and linguistic groups, religions, places of birth, and geographic
communities (Pearson 2009:62). This view allies him to scholars who argue
new technologies and globalisation structure identity in new ways, which
compete with traditional ideas of language, race, culture and place.

Today, people interact electronically, cutting across traditional
boundaries of identity and educational practice. Knobel and Lankshear use
the example of Rikku-chan, a ‘failing’ (by standardised tests) African
American in an urban public high school, who writes ‘fanfic’ (fan fiction),
drawing on Greek and Roman myths. Online peers help her with spelling,
grammar and plot construction (Knobel and Lankshear 2006:80). Indigenous
youth in remote communities are also engaged in ‘new multimodal practices’
(Kral 2009:44-45). One Cape York Indigenous community ‘leapfrogged’ to
the most up-to-date technology when mobile broadband was introduced in
2008 (Dyson and Brady 2009:13). As well as their new and rapidly
expanding digital literacies, Cape York children have vernacular literacies,
which may be closer to multimodal ‘new technology’ literacies than those
required for print culture (Cope and Kalantzis 2006:29). For contemporary
literacy researchers, achieving Pearson’s flexible, bicultural future involves
recognising such multiliteracies. If Pearson’s quote is slightly changed to
‘Literacy plus books texts spawns critique’, children need to learn to
negotiate more than print-based literacies, from an early age. The library is
now largely online, the Reading Room is multiple chat rooms.

If the focus is only on basic skills, what curriculum will teach to the
convergent, multidiscipline, multi-identity needed for the future? Primary
schools do unmeasurable things, which prepare students for high school, and
life beyond school. In 2009, in a classroom in Cape York, a (mainstream)
teacher’s class downed pens during a lesson to have an animated discussion, which started with a discussion of the planets, and went on to the universe, Aboriginal culture and the meaning of life. Into a gap in the animated discussion was heard V’s indignant voice; ‘How come yufla’ KNOW all this stuff??’ ‘V’ had finally managed to ‘graduate’ from the remedial ‘Direct Instruction’ class and was now in his grade class. He had finally, finally got to the end of a list of words he’d seen many times before, through test after test, before his ADHD distracted him, or he threw down his pen or swore at the teacher because it made him feel ‘stupid’. Had he been sitting in that class all the time, with mental health support and targeted ‘direct instruction’ skills focus as one (but only one) aspect of his day, he may not have felt he’d missed out on so much. Lack of reading ability in English would not have stopped a kid who could ‘talk the hind leg off an iron pot’ learning from and contributing to discussions. From my experience, this free-ranging discussion could not occur in a SRA Direct Instruction classroom. The holistic Academy model caters for his needs in most ways, but limits his opportunities through its current interpretation of ‘requisite instruction’.

References


Australian Broadcasting Corporation (ABC) (2011) Return to Aurukun, Four Corners, 27 April.


Devine, M (2010b) Give good teachers a gold star and put the bad ones out to pasture, Sydney Morning Herald, 4 February.


**Endnotes**

i SRA Direct Instruction is a commercial curriculum package originally developed in the 1960s as the Direct Instruction System for Teaching Arithmetic and Reading (DISTAR), by Engelmann and colleagues (US Department of Education 2007:1). It is distributed by McGraw Hill Education (McGraw Hill 2011).

Making Up Lost Time in Literacy (Wheldall & Beaman 1999).

iii Centrelink is the Australian government service provider that delivers welfare payments and services.

iv National Assessment Program – Literacy and Numeracy (NAPLAN).

Development work at the school prior to 2008 included school community partnerships, the MULTILIT program, digital culture initiatives for cultural transmission, case management aimed at school attendance, and policy initiatives. Welfare reform began in 2008, including case management targeting school attendance, further implementation of the MULTILIT program, student education trusts and the Family Responsibilities Commission (CYP 2009:9).

The terminology can be confusing. See Rosenshine 2008 and Hempenstall 1996 for an overview.
Although MULTILIT uses direct instruction elements, it is a different program from SRA Direct Instruction, with different aims. It focuses on intensive phonics based literacy instruction, aiming for rapid return to mainstream classes. Although I had some misgivings about the direct instruction elements, MULTILIT has proven to be effective in various contexts, including Coen State school (Multilit website 2011, Wheldall and Beaman 1999). My concern related to children who did not progress quickly, and their need to receive the balanced learning provided by the mainstream curriculum.

The lesson sequence is from a public SRA Direct Instruction sample (McGraw Hill).


“You all”, Cape York Kriol.