On Explicit and Direct Instruction

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What is Explicit Instruction?

In the field of education, explicit instruction refers to teacher-centred instruction that is focused on clear behavioural and cognitive goals and outcomes. These in turn are made ‘explicit’ or transparent to learners. Sociologist Basil Bernstein defined explicit instruction as featuring “strong classification” and “strong framing”: clearly defined and bounded knowledge and skills, and teacher-directed interaction. Explicit instruction is affiliated with but not limited to highly structured instruction in basic skills in early literacy and numeracy education. It is also used in Australian genre-based approaches to writing that stress the value of “explicit” knowledge of grammar and all textual codes. Several major meta-analyses and reviews have identified explicit instruction as a major instructional approach in contemporary schooling.

What is Direct Instruction?

The term direct instruction (hereafter, DI) is affiliated with an instructional approach and curriculum materials developed by Siegfried Engelmann and Carl Bereiter in the late 1960s. This is a specific version of explicit instruction, based on the classical behaviourist stimulus/response/conditioning models developed by B.F. Skinner. Programs like DISTAR and CRP provided teachers and schools with packaged, programmed instructional models initially in reading and numeracy, later expanding to other curriculum areas. McGraw-Hill now markets these as Reading Mastery, part of the SRA family of materials. Teachers follow a step-by-step, lesson-by-lesson approach to instruction that follows a pre-determined skill acquisition sequence administered to students placed in ability/achievement groups. The prescribed approach to teaching is tightly paced, linear and incremental, aiming to maximize time-on-task, and positively reinforce student behaviours. Teachers receive rigorous training and a directive teachers’ guidebook. The strict scripting of teacher behaviour is an attempt to place quality controls on the delivery of the curriculum. The instruction is followed by assessment tasks and tests aligned with the behavioural goals, the results of which feed back to modify pace, grouping and skill emphases.

Bereiter subsequently moved on to focus on rich classroom talk in science education, drawing on Vygotsky’s constructivist theories of learning. Englemann continued with the original DI model working on longitudinal studies of the use of DI in early intervention programs like Project Headstart. He continues his work in Oregon advocating and researching, licensing and implementing copyrighted DI materials.
What does the literature say about Direct Instruction?

There are extensive published philosophic and empirical analyses of the DI model. The progressive philosophical critique is skeptical of the behaviourist focus on teacher-centred instruction and knowledge, stating that the approach does not engage with student cultural resources, background knowledge and community context. The behaviourist approach is viewed as a deficit model that does not align with constructivist models of learning. The sociological critique is wary of the effects of scripted instruction on teacher professionalism, claiming that the model deskills teachers by routinizing their work and downplaying their professional capacity to vary instructional pace and curriculum content depending on the student cohort and context. There are also longstanding empirical sociological studies of the longitudinal effects of instruction based on strict ability grouping. Finally, there is an extensive published philosophic and sociological critique that comments on the asymmetrical relationships of power and knowledge in the DI model, making the case that it subordinates and mis-recognises student and community background knowledge, cultural experiences and prior knowledge schemata.

There are over three decades of claims, counter-claims, and debates amongst empirical researchers about the conventionally-measured educational outcomes and effects of DI. John Hattie’s recent support of DI in his important work *Visible Learning* is the latest in a series of meta-analyses, reviews and studies of DI. Setting aside work that has been undertaken by Englemann and colleagues who have a direct interest in the program – the various analyses and meta-analyses offer overlapping but also contending views of the educational efficacy of DI. The context of the *No Child Left Behind* legislation in the early 2000s reignited the empirical, scientific debates over the adequacy of the evidence-base enlisted to support or refute DI.

Hattie’s analysis of DI offers a more complex argument: that where DI is effective, it realises numerous key reform principles. These include: teachers working together to plan lessons, and teachers developing clear criteria and indicators of success prior to initiating teaching. He notes that these features are not unique to DI.

What are the key questions around DI facing Australian educators?

As a literacy educator and educational researcher, I have reread the literature on DI over the last two years, in part because of the adoption of the program by colleagues at the Cape York Institute. I was trained to teach DISTAR in 1976 as a student teacher, and my daughter was taught with the program in 1979 in a Canadian primary school. I taught the middle-years CRP (Corrective Reading Program) in the late 1970s as part of an ESL program for migrant students.

As noted above, the scientific and educational controversy over DI continues in the US and Canada. In Australia, the recent ACER report on the Cape York implementation of DI does not provide any further definitive empirical confirmation of the efficacy of the approach in that context. It does, however, note that DI has provided a beneficial framework for staff continuity, instructional planning, developmental diagnostics and professional development in school contexts where these apparently had been lacking.

However - as always in the making of curriculum policy, whether and how to proceed with DI or any other curriculum approach hinges on a number of scientific and practical, economic and cultural questions. These include:
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1. Does DI have longitudinal effects on students’ conventional achievement and participation levels?

Reading the research, I have little doubt that DI (and other explicit instruction models) can generate some performance gains in conventionally-measured basic skills of early literacy and numeracy (via its own assessment instruments, NAPLAN style tests and limited measures like DIBELS). This would also be the case with a number of other approaches, including those mentioned in the National Inquiry for Teaching Literacy. However, the key question raised in my work with Peter Freebody on the “four resources model” is whether these basic skills are sufficient for sustained, longitudinal gains in achievement or whether they potentially ‘wash out’ in the transition to the upper primary years. In that model, we argue that basic skills acquisition particularly in decoding is “necessary but not sufficient” for sustained achievement gains. This was the same question raised about the efficacy of Reading Recovery. The educational challenge isn’t just about early intervention and better Year 3 decoding scores. The longstanding problem facing schools is what in the literature is termed the “fourth and fifth grade slump”, where students who have achieved basic literacy whether through DI or other approaches, suffer marked problems engaging with reading comprehension, and the production and engagement with specialized texts of disciplinary and field knowledge.

2. Does DI suffice as the whole school curriculum?

A second key question is about how DI articulates into a coherent whole school curriculum. Importantly, the Cape York work has used DI as one component of the school curriculum, with “culture” and “club” as key complementary elements under development. This is crucial. My query here is whether a steady diet of DISTAR materials, SRA reading lab materials, and other pre-packaged ‘generic’ reading materials generated by US-based curriculum developers in itself can suffice for a curriculum, any curriculum, much less the Australian primary school curriculum.

When we used these materials in Canada in the 1970s, they represented ‘generic’ ideas about childhood, about cultures, about histories – rather than those that represented or portrayed the values, ideas, contents, and ideologies of Canada. Particularly in the case of Indigenous education, we know through many lenses that culture, place, context and history count – not just for kids, but for cultures, Elders and communities, for institutions and for the health of society at large. Looking at Navaho schools that had adopted scripted, packaged models, Bryan Brayboy and Teresa McCarty both found that curriculum foci on Indigenous culture, issues and languages declined as part of a more general narrowing of the curriculum.

While DI constitutes a specific instructional approach, it does not in itself constitute a considered, coherent and historically-located curriculum. Wherever we stand on the political spectrum debating the National Curriculum, Australians would agree that the ideas, values, beliefs, histories and cultures that are taught matter. The curriculum is far more than an agglomeration of generic skills and behaviours to be inculcated through packaged programs. This doesn’t just apply to DI. How any approach to early skill acquisition in literacy and numeracy developmentally, intellectually and culturally articulates into substantive cultural knowledge and field-specific expertise remains a key question facing schools.

3. Is DI a cost-effective policy investment for medium to large-scale intervention?

DI is one of many educational programs with an emphasis on explicit instruction on basic and advanced skills. At present, the curriculum materials, teachers’ guidebooks and training, proprietary assessment instruments – provided by Englemann and colleagues in Oregon – cost considerably more than locally developed materials, including several explicit instruction models developed in Australia.
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In a recent major evaluation report on Aboriginal and Torres Strait Islander school reform prepared for DEEWR, we found that those schools that were making marked progress on “closing the gap” on conventional measures were using programs that had been selected specifically because of the needs of local students. These included: a successful outback school that had implemented co-teaching, co-mentoring using transitional bi-dialectal curriculum materials; a low SES suburban school that melded local Aboriginal cultural studies and community engagement, with a strong professional development focus on intellectual demand and quality pedagogy. In each case, these schools prioritized quality classroom instruction and student/teacher cultural relations, teacher capacity and professionalism, and a strong engagement with and knowledge of local communities, cultures and languages. Our study showed that simply giving principals local autonomy does not generate better results. Indeed, all the literature tells us that principals must function as instructional leaders with a focus on quality teaching and, to return to Hattie’s point, this focus must set the professional conditions to work together to plan the curriculum, analyse and track student performance.

This doesn’t rule out ‘explicit instruction’ or ‘direct instruction’ or an emphasis on basic skills – but these make a difference where they are construed as part of a larger school-level approach and broader teacher repertoire.

Turning the education of Aboriginal and Torres Strait Islander students will require school-level curriculum planning, ongoing analyses of student progress, a focus on quality pedagogy and intercultural relationships between students and teachers, and a substantive engagement with Elders, parents and communities. In my opinion, while explicit instruction in its various forms is a necessary part of an effective school-level response – direct instruction is not and by definition cannot be seen as a universal or total curriculum solution.


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Allan Luke was presented with the ALEA Citation of Merit Award for Research at the AATE/ALEA Joint National Conference in Brisbane in July 2013.

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