

## How Sustainable Are Claims about Evidence-Based Content in Australian Courses for Preparing Special Educators?

There is increased interest in using research-based practices in Australian education generally, and in the education of students with disability and special education needs. There are many terms and meanings related to research-based or evidence-based practice. In this paper we used the definition of evidence-based practices (EBPs) as those that have support from multiple, quality, experimental research studies. It is important to include information about these practices in programs preparing special educators, as they are more likely to result in improved student outcomes.

Specific research-based practices for students with disabilities that have been identified include systematic and explicit instruction and practices drawn from applied behaviour analysis (prompting, modelling, antecedent-based interventions, functional behavioural assessment and positive behaviour interventions and support). For students with difficulties in reading and maths, the content of what is taught should also have a research base. For reading, content should include phonemic awareness and phonics, decoding, sight word instruction, vocabulary, fluency and reading comprehension strategies. In numeracy, concepts, procedural strategies and automaticity are important.

### Research Questions

These practices should be part of the content of special education teacher preparation programs and our study addressed two research questions:

1. Does the content of units in Australian university courses in special and/or inclusive education that addresses instruction include EBPs?
2. Does the content of units addressing instruction support claims for research or evidence-based practice?

### Method

In an earlier study we identified post-graduate special education/inclusion programs in Australian universities and downloaded relevant materials on core and elective units in each course. For the current study, we drew on our coding of course content related to instructional EBPs including principles and practice of ABA, explicit teacher-directed instruction, research-based literacy instruction, research-based numeracy instruction and positive behaviour support and functional assessment/program planning. We then also coded the presence of claims regarding research or evidence-based content. The final step was to ascertain if the claims about content were supported by the presence of content that is evidence based. Each unit was coded by at least three of the four authors independently, and we then reached consensus on the final coding.

### Results

Twenty-eight courses from 21 universities were included. Six courses from five university made no claims about research/evidence-based practices. For four courses from four universities, all claims were supported. Supported claims were made in 72 units from 19 courses and unsupported claims were made in 53 units from 15 courses. Supported claims most commonly related to applied behaviour analysis or explicit teaching. There were only nine units containing EBPs where no claims were made regarding evidence or research.

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## Discussion

We must acknowledge that for some courses we had limited information. Universities may also use evidence or research-based or similar terms in ways that do not correspond to the definition we used. It seems that universities generally see a research/evidence base for course content to be important, as these claims are made in unit materials. It is of concern that much content (especially in literacy and numeracy instruction) was not related to an evidence base and did not appear to include EBPs.

Initial teacher education often does not include explicit teaching strategies; therefore, it is vitally important that special educators have these competencies, and understand the evidence base that supports them. Similarly, teaching strategies from applied behaviour analysis are especially important for students with more severe disabilities, including those on the autism spectrum. Positive behaviour support is grounded in applied behaviour analysis, but this research/evidence base was often not mentioned. It may be that recent media criticism of some applied behaviour analysis applications have discouraged universities from being seen to promote applied behaviour analysis more generally.

Overall we are concerned by these findings. There appears to be no consensus on evidence/research-based strategies, and only four courses contained only supported claims, and only one university had supported claims across all the content areas.

Competent special educators must be conversant with EBPs and the actual evidence itself. We believe our findings support the need for formal standards and certification for special education teachers. Special educators should be trained to implement evidence-based strategies with fidelity and to coach other teachers in their use.

The full article is available at <https://www.mdpi.com/2227-7102/13/2/105>



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