“Good” choices vs “what really works”: a comparison of evidence-based practice in medicine and education

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Abstract

Evidence-based practice, in a form which draws predominantly on quantitative research and privileges randomised controlled trials as research methods, has been translated from medicine into education. It follows that combining understanding of both disciplines may contribute to insights into the costs and benefits of this project. This article shares findings from a small study initiated by a medical doctor and teacher educator to compare versions of practice and professionalism offered by two texts from our respective disciplines. These texts advocate evidence-based practice for patients and students with disability and/or special needs. We describe our methodology and methods for interdisciplinary comparative textual analysis and share how this comparison contributes to understanding ways evidence-based practice is performed in education. In particular, we compare the versions of professionalism imagined in these cases and ask questions for policy and practice about motivations for the choices made in the apparently neutral process of “translation”.

Keywords Evidence-based · Randomised controlled trials · Professionalism · Professional identity · Disability · Special needs

Introduction

Evidence-based practice, a term often used when teachers’ pedagogy is informed by evidence that is “‘objective’, externally generated and largely quantified in form” (Mockler & Stacey, 2021, p. 170) continues to expand as the dominant paradigm in education policy and practice (Crawford & Tan, 2019). This term has been explicitly translated from medicine (McLean Davies et al, 2015) and promoted as “a medical

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approach” (Singhai, 2017) to education. Australia has recently established the Australian Education Research Organisation (AERO), informed by the Productivity Commission’s report (2016) which recommended that randomised controlled trials be adopted as the gold standard for education research. This is a crucial moment for Australia, and other nations making similar moves, to explore what the term “evidence-based” might mean, critically reflect on how it has been translated from medicine and identify how the concept discursively positions teachers. Improving inclusive and special needs education is an ongoing project, aimed at enhancing students’ lives. All the above formed the impetus for our study.

Evidence-based practice in education is perhaps most widely understood through the USA’s No Child Left Behind Act (Bush, 2001) and the global juggernaut of Visible Learning (Hattie, 2008), now enacted in over 23 countries (Knudsen, 2017); the former relies on standardised testing and measurement and the latter solely on medical-style quantitative evidence to inform teaching. We situate our work in dialogue with a vast literature both acknowledging and critiquing the adoption of medical paradigms in education, including seminal works such as those of Elliot Eisner (2001/2017), Martin Hammersley (1997, 2001), Gert Biesta (2007) and Nicole Mockler (2011).

In other publications, we have discussed this literature and the impacts of the medicalisation of educational policy discourse for contemporary educators (McKnight & Morgan, 2019, 2020); in this subsequent small study, we consider the constructions of evidence-based practice in professional learning texts we encounter in day-to-day teaching work in our respective disciplines, interrogating these constructions for what they suggest about how evidence-based practice has been translated into education. This is in contrast to the focus on the role of “evidence” in education policy documents in much of the literature (as discussed in Tröhler, 2015).

By “evidence-based practice” in education, we refer to how evidence (usually “scientific”) is intended to inform the pedagogical decisions made by teachers in planning for and enacting learning. Our focus is not on evaluating scientific or medical evidence for its rigour or effectiveness in working with students in the classroom.

Background

Briefly, Lucinda lectures in a unit titled “Culture, Diversity and Participation in Education”, offered to pre-service teachers at Deakin University. She experiences an ongoing tension between students’ desire for templates or “tips and tricks” for “dealing” with diverse students and the ethos of the unit, which is to critique this approach and consider disability and other diversity as intersectional and uniquely experienced by individuals, with whom teachers need to engage. Andy teaches evidence-based medicine to undergraduates studying general practice at Monash University, in a course emphasising that “good” evidence-based practice is about knowing when to follow and when to reject guidelines when working with individual patients. We are involved in an ongoing interdisciplinary project in which we evaluate the ways evidence-based medicine is taken up in education, for example describing the pitfalls of evidence-based practice (McKnight & Morgan, 2019) and

the discursive constraints of the use of the word "clinical" in education (McKnight & Morgan, 2020). In this next stage of our project, we adopt a comparative analytical approach to explore similarities and contrasts between our disciplines' invocations of evidence-based practice in two comparable texts.

Our beliefs about and attitudes to disability and diversity are relevant to this new small study. Being explicit about these is important to establishing the study's trustworthiness. While we do not use the word "disabled" to describe ourselves, we include people with disabilities in our immediate and extended families. Disability is something everyday and personal for us, in relation to deafness, vision impairment, phocomelia, being on the autism spectrum and more. We have worked closely with patients and students with numerous different conditions, different diagnoses and different lived experiences. One in six Australians have disability, Aboriginal and Torres Strait Islander peoples have higher rates of disability in all age groups and once over 65, around half of all of us live with disability. Disability can be fluid, being acquired or temporary. We have also worked with patients and students who have experienced trauma, financial disadvantage, abuse, neglect, crime, homelessness and other situations and events that contribute to the intersectional complexity of their lives and the ways they may interact with institutions and systems. We acknowledge that our patients and students also bring unique combinations of race, age, class and gender to our encounters.

Sourcing texts for comparison

In continuing to establish the trustworthiness of the study, we begin with the provenance of the two texts, or samples, we have compared. Case selection in comparative studies is frequently determined by the availability of data and serendipity can play a part as well. Our roles as educators require us to do a significant amount of professional reading, both to keep up to date with practice and to seek resources for our teaching. In late 2020, Andy shared a medical journal article with Lucinda, who was struck by the way it provided a counterpoint to a chapter she had just read on inclusive education. The first article (Text A) was "Making a good mental health diagnosis: Science, art and ethics", by Louise Stone, Elizabeth Waldron and Heather Nowak, in the *Australian Journal of General Practice* (2020). The second (Text B) was the introductory chapter in the book *What really works in special and inclusive education: using evidence-based teaching strategies* (2020) by David Mitchell and Dean Sutherland. We then assessed whether these items offered sufficient and valid grounds for comparison, determining that they both:

- constitute professional reading that aims to educate a practitioner audience (Text A is part of the required reading for a quiz at the end of the issue providing points for continual professional learning and Text B aims to teach educators about optimal teaching strategies);
- represent examples of current thinking about evidence-based practice in their respective disciplines, both being published in 2020 (Text B in a fully revised and updated third edition);

- espouse an evidence-based approach at the level of both principle and practice;
- suggest strategies for “good” evidence-based practice in diagnosis (Text A) and teaching (Text B);
- claim to seek to improve the wellbeing and lives of those with disability and/or special needs;
- are multi-authored by experts in the field;
- are published by high quality publishers (The Royal Australian College of General Practitioners and Routledge, one of the world’s leading academic publishers)
- are of similar length, each being seven pages.
- were encountered by each of us in our respective everyday work, and read by us as practitioners first and researchers second.

In short, we found that these texts have enough in common to justify a comparative analysis, despite them emerging from different disciplines, and existing in differently materialised forms as a peer-reviewed journal article and a book chapter. Feasibility was the chief factor in selecting only two texts: discourse analysis is famously responsible for creating a great deal of analysis from a small amount of data (Gill, 2018).

Our study clearly has limitations. It is only based on two texts, which while they represent particular kinds of thinking, are not necessarily representative of their fields. Yet they do represent different kinds of thinking about the same topic (evidence-based practice for those with “special needs”), circulated to a wide professional audience. We bring our subjective judgements and histories, and our own beliefs and values about medicine and about inclusive education to the process of analysis. What we perceive is inevitably motivated. We have tried, however, to be open about this, as a form of rigour in itself.

Conceptual framing informing methods

Encountering these texts first as practitioners is important for our conceptual framing here, as this study has a poststructural and autoethnographic leaning that blurs boundaries and troubles the performance of distanced and disinterested (social) science, as we “examine” and compare these texts. As teachers, we were initially interested in how we might incorporate these texts into our daily work. As researchers, we are interested in these texts at the level of discourse. We regard discourse as productive (Foucault, 1972); in this case we have explored, and indeed, explore through writing this article, how language produces notions of evidence-based practice and professionalism. We recognise the subjectivities or imagined identities that emerge through discourse, particularly those of academics, practitioners and patients/students.

We consider the further productive work of discourse analysis as being contingent, forming in relation to specific contexts and always in process. Our disciplines themselves are similarly imagined entities, always in flux, so what we produce is not eternal truth, but observations that may be useful. We also invoke a Foucauldian

understanding of power as volatile, with subjects potentially positioned as both powerful and powerless; this is especially relevant to how teachers might be constructed as both users of evidence-based tools to serve their students, and tools themselves, at the service of systems.

We find feminist poststructuralist discourse analysis (FPDA) to be generative. As with the works of Foucault and Mikhail Bakhtin that it draws on, FPDA does not prescribe methods but outlines parameters for this form of research. This method argues that perception can be enhanced by juxtaposition, that multiple stories should be privileged, that attention needs to be paid to researchers' own roles in "selecting and orchestrating" (p. 51) materials for analysis, that scepticism should be maintained towards claims and binaries, and that reflexivity is important.

While to some extent, it may be said that we have conducted a descriptive comparison, it draws on the diverse field of discourse analysis more broadly. Discourse analysis itself has multiple voices and guises, and discursive constructions that we argue are difficult to disentangle, with influences from cultural and media studies, linguistics and literature. Above all, we turn our motivated attention to texts as sites where identities and subject positions are constituted (Gray, 2003, p. 137) and resisted. Drawing on our initial readings, we conduct a more formalised and systematic analysis alert to power and agency, metaphor, intertextuality, multimodality and contradictions, or "sites of struggle" (Baxter, 2003), and how these operate to discursively construct contrasting versions of evidence-based practice.

Research questions

This conceptual framing leads us to our research questions. In contrast to our previous macro-level analysis of medical discourse in education (McKnight & Morgan, 2019) and to relate the literature's broad discussion of the limitations of "what works" (Biesta, 2007; Eisner, 2001/2017; Mockler, 2011; Zhao, 2017) to our interdisciplinary contexts, we turn to close analysis of two texts. We compare these texts to explore what our interdisciplinary dialogue reveals about evidence-based practice, and how practitioners are invited to perform it. Our questions and methods provide, in relation to our texts, "a means of understanding and illuminating the ideological notions that run through [them]" (Gill, 2018, p. 27). We ask:

- how is evidence-based practice constituted by these texts?
- how is evidence-based professionalism constituted by these texts?
- what does interdisciplinary comparative textual analysis reveal about the translation of evidence-based practice into education?

Research methods for interdisciplinary comparative textual analysis

To answer these questions, we have employed a sequence of methods of engaging with the two texts, deliberately making multiple approaches to individual data sets (Baxter, 2003) and noting these texts' similarities and differences. We have called

our approach “interdisciplinary comparative textual analysis”. Rejecting binaries separating macro- and micro-analysis, and qualitative and quantitative analysis, we have each undertaken:

- (1) an independent second, formalised reading of each text (hard-copy journal and single print-out of chapter) for impressions, recognising that the texts are already “in use” and read by us as practitioners—a handy situation, as textual analysis is often critiqued for lacking any sense of data “in use” (Bezemer & Kress, 2008). Annotations were not made on the texts, to avoid influencing each other’s initial impressions of the unfamiliar text.
- (2) an independent initial notetaking reading of each text, firming up impressions, increasing familiarity and checking ideas. Our notetaking was made on note-paper in two columns, to allow for observations about each text to be arranged alongside each other.
- (3) an independent staggered reading of the two texts simultaneously, reading one paragraph of one, then one paragraph of the other, with notes made in further columns.
- (4) discussion together based on 1–3: interdisciplinary dialogue comparing impressions and notes and informing further readings.
- (5) a series of five targeted readings, each with a separate focus, mixing methods where appropriate to count items and qualify impressions, and recognising that these readings overlap. We read for agency; metaphors; intertextuality; multimodality and internal contradictions, and specifically, for how each of these related to, or contributed to realising evidence-based practice and professionalism. We note that across these five readings, we were also particularly alert to absences in the texts, such as voices, people or texts not represented, as per FPDA’s interest in silences (Baxter, 2003). For each reading, we have made notes in two columns.
- (6) discussion together based on 5, in which we compared notes and talked through and agreed on the findings below.

The following section and subsections discuss our findings and describe them in relation to several key elements of the text: titles, openings, bodies and conclusions. While ostensibly linear, this discussion is recursive and draws in impressions of the articles in their entirety.

Discussion of findings

Titles

Text A is titled “Making a good mental health diagnosis: Science, art and ethics”. Text B is titled “What really works in special and inclusive education: Using evidence-based teaching strategies”. Both titles foreground the texts’ interests in serving those with mental health conditions and disability/special needs, Text A through choosing psychiatric diagnoses and treatments in general practice, and Text

B through choosing teaching strategies in education. Both titles are oxymoronic, suggesting contradictions in their terms. Text A seems to make the assumption that "a good diagnosis" can be established and described, yet counterbalances this normative singularity after the colon, by invoking the vast disciplines of science, art and ethics as essential to this act. While inclusive, the order of words in this list designs its own hierarchy, perhaps unsurprisingly putting science first. The breadth of knowledge and expertise required to make "a good diagnosis" is established from these first words, which are accompanied by a triumvirate diagram, like a three-leaf clover interchange. Science, art and ethics are here inextricably and harmoniously intertwined.

Text B's title draws, apparently unironically, on the much critiqued (Biesta, 2007; Eisner, 2001/2017; Mockler, 2011; Zhao, 2017) education paradigm of "what works", using the adverb "really" to emphasise the exceptional quality of its advice, yet applies this normative paradigm to a student cohort which is extremely diverse, and has historically been harmed by a medical or scientific approach (Brantlinger, 2009). For Lucinda, this title unintentionally intertextually invokes the voices of these critiques, and also, perhaps intentionally, the heft of the USA's "What works" clearing house, a repository for specific solutions to generalised educational problems, based on scientific-style, quantitative evidence. In contrast to the complexity represented by the intertwined logo of Text A, Text B offers a linear and mathematical solution that is sustained throughout: evidence + teacher = outcomes.

Text B also chooses to use the contentious term "special" in its title and throughout, despite critique of this as a label risking the "assignment of children to categories of defectiveness" (Slee, 2013). It has also been called out for sustaining undemocratic separation, and for its "deep implication in matters of both racism and ableism" (Ferri & Connor, 2006). These critiques are not addressed anywhere in Text B.

As we read these texts, it emerges that these titles are representative of their respective text's complexity (Text A), and internal contradictions (Text B). Text A reveals the irony of the "good" diagnosis by suggesting that sometimes, no diagnosis at all is preferable. Text B continues to claim to support diversity and yet simultaneously undermine it through the singularity of "what works".

Openings of texts

Both texts open with an aspirational paragraph; they similarly aspire to quality of life for patients and students with mental health conditions, disability or special needs. Yet beyond this, they exhibit profound differences that upturn any assumptions that might be made about "clinical" medicine and "caring" education. Text A opens with the statement "PSYCHIATRIC DIAGNOSIS is difficult", all bold red capital letters for the first two words (this is the journal's style). The complexity of medical work is diagnosed as the problem here from the outset. Text B defines the underperformance of students with additional needs, and the underperformance of their teachers in relation to implementing evidence-based practice, as the problem to be resolved. This sets up contrasting interpersonal relationships between the authors

and their professional audiences. Text A addresses allies. Text B addresses recalcitrants. These orientations have hierarchical power implications. Text A's authors and audience are side by side. Text B's authors are figuratively superior.

From the start, these texts address and attempt to call into being two kinds of professionals: "Good" doctors wrestling alongside each other with professional challenges and "bad" teachers who are not doing what they "could, and *should* [researchers' emphasis]" do to close the "gap" between quantitative research findings and classroom practice. This spatial metaphor of the "gap" defines research and practice as separate, despite the rich educational tradition of praxis, or theoretically informed research in action (Freire, 1972). Evidence needs to be "integrated" into doctors' practice yet teachers must "adopt" it entirely. Text B draws on the 2002 President's Commission on Excellence in Special Education, which "bemoaned the lack of emphasis on aggressive intervention using research-based approaches"; teachers are implicitly chided for finding inspiration and support from their own experiences, or their colleagues, rather than "evidence". The use of the word "aggressively" contrasts with the gentle and considered medical approach of Text A, and the medical authors' sensitivity to patients. "Bemoaned" positions teachers as in deficit. The chief challenge in teachers implementing evidence-based practice is presented as their ignorance of it and incapacity to interpret it. An allusion is made to the fact that "much remains to be investigated", suggesting the authors inhabit an imaginary in which every single aspect of education will one day have been studied by rigorous randomised controlled trials. These versions of practice and professionalism inhabit broader discursively realised and fundamentally different worlds; discourses of teacher fallibility are common in both academia and the media.

We do flag that Text B, as a more commercially oriented product, must define a need for what it offers as a purchasable solution. The logics of production and consumption inform discourse, and the authors position themselves as saviours readily capable of "rectifying" deficiencies in teachers and students. They have what their audience does not (knowledge of scientific evidence), and of which teachers are notionally in need, in order to perform as "effective" or proper educators. In contrast, in Text A, effective doctors "recognise and acknowledge" the limitations of science, especially in regard to classification systems for mental illness and their associated evidence-based guidelines. They combine the "warp" of this important but inevitably flawed science with the "weft" of lived experience to form a clinical partnership with patients. Together they seek common understandings and make shared choices. This feminised weaving metaphor is in stark contrast to Text B, which demands teachers eschew experiential knowledge. Text A and B's versions of practice and professionalism are epistemologically distant from each other.

Text B refers to "the body of evidence" in education as a static and clearly defined thing. Text A reminds readers of the ways psychiatric classifications have: (1) changed over time (for example, "hysteria"); (2) disappeared ("homosexuality") or (3) emerged ("internet addiction"). Classifications and the concept of "disorder" itself are understood as socially constructed. The authors caution readers about the much-contested boundary between wellness and illness in psychiatry. For Andy this intertextually references the radical and influential work of RD Laing (1990) and his controversial notion that, in some desperate circumstances, "madness" makes more

sense than wellness. It foregrounds how frequently comorbidities (multiple disorders) complicate choosing a "correct" course of action, and also how premature or incorrect diagnoses can harm.

Mistakes, in fact, are made through over-reliance on an evidence base that by nature excludes comorbidities in selecting trial participants. This is a distinct danger in education, too, that randomised controlled trials exclude participants with multiple special needs, yet Text B only once, in the introduction to the book, mentions in passing some apparently insignificant "problems" with the "body of evidence". Text A realises that "shame and stigma" mean much is hidden. Text B assumes all can be readily known and revealed- the foundation of popular evidence-based programmes such as John Hattie's *Visible Learning* (2008). Again, this epistemological difference materialises very different practice and professionalism, with doctors as empathetic listeners always open to learning more about their patients but aware full knowledge of others will never be achieved, and teachers as aggressive viewers who must see all, know all and, ultimately, control all.

Bodies of texts

The first pages of these two texts provide a further contrast. In Text A, one third of the first page describes Aditya, a 10-year-old boy from an immigrant family who is refusing to go to school. He is quoted describing his situation, his voice represented in the article through direct quotations and reported speech. His teacher's perspectives are included, along with his mother's concerns and suggested diagnosis for her son. Aditya's story is a framing device, performing a textual metafunction creating cohesion for the article, and the authors return to him to personalise and humanise their discussion. No individual is named in Text B, and no voices of students, teachers or parents are included.

Instead in Text B, under the bolded heading **ON THE WHOLE, STUDENTS WITH ADDITIONAL LEARNING NEEDS HAVE LOW LEVELS OF ACADEMIC ACHIEVEMENT**, over 80% of the first page provides statistical data on the low academic achievement of students with additional needs, especially those with "mental retardation". At this point, we step outside the dispassionate guise of discourse analysts and share that the authors' use of this term creates a visceral shudder of deep unease for us. It is a phrase from our pasts, and we cannot detach ourselves from its countless iterations, in our childhoods, as a cruel insult. The authors, later in the chapter, attempt to justify their use of such terms because they appear in the body of evidence; the authors characterise such terms as merely "going against" their person-first sensibilities, but still appropriate.

We find this language unacceptable and feel concerned that it may be presented to and modelled for pre-service teachers. Such terms also highlight potential problems with the research being drawn upon, with its definitions, classifications and intentions. Returning to the section as a whole, this deficit construction of learners, via the language of "low", and its bulk in the text, contrast with the way social actors are represented in Text A; genericisation and specification, whether people are

assimilated into groups or treated as individuals, and whether they are quantified as statistics, are important representational choices authors make (van Leeuwen, 1996).

We acknowledge that inclusive educators face difficulties in wishing to expose barriers to success while avoiding portraying students as victims. Yet the cumulative effect of the statistics here and the language used, with their effects inextricably interwoven, create a weight of dismal deficit: “low” (used six times); “little”; “concern”; “gap”; “insufficient”; “disproportionate”; “exclusion”; “paucity”; “diagnosis”; “disadvantage”; “risk”; “poverty”; “less”; “problems”; “drop out”; “unemployed” and “underemployed”.

Text A relies on story. Text B draws conclusions from quantitative data, not story. This creates different implied interpersonal relationships between doctors and patients, teachers and students, described as follows. Doctors, in Text A, are oriented towards patients, to context and to multiple voices telling different stories. Teachers, in Text B, are oriented towards data’s monologic story, told only in the voice of an archaic version of quantitative science. Doctors’ impetus, in Text A, is to listen. Teachers, in Text B, is to fix. While Text A’s doctors draw on knowledge that is ever changing, socially constructed, unstable, evolving and always open to challenge from patients’ stories, Text B’s teachers implement knowledge as tool, unchanged over time, even in its language. Medicine, in Text A, reports that an “objective” problem-based approach is demonstrated to be “particularly damaging” to some individuals. Education, in Text B, does not mention this. Here we reflexively note the way our own language can readily construct these two articles as accurately representative of their fields, when further research would need to be done to establish this.

Another striking contrast in the ways doctors and patients, and teachers and students are represented is in terms of their agency. One way this can be determined is through their presence in the text, the ways they are grammatically constructed as active within sentences and both the kinds and number of verbs. In reading with attention to active verbs, identifying, counting and listing them, we found that doctors’ actions in Text A are largely but not entirely about perception and interpretation (“understand”, “consider”, “decide”, “believe”). Eleven of the 40 active verbs representing actions carried out by doctors are interpersonally oriented (“ask”, “understand”, “discuss”, “negotiate”). Teachers’ actions, in Text B, are largely but not entirely instrumental (“plan”, “implement”, “evaluate”, “increase”). Only three of 44 teachers’ active verbs are oriented towards dialogue (for example, “help”).

The modality of the verbs (on a continuum from definite to possible, as represented by the words “must” and “might”) used throughout each text is also of interest, suggesting doctors are working out what to do, as part of their professional role, while teachers are busy doing what they “must”. This also suggests the orientation of the authors to their audience, as peers or in positions of greater power and seniority. Most powerful of all, however, was an observation related to patients and students and the number of active verbs overall, pertaining to their actions. Text A contains 47, while Text B contains 26. In portraying and constituting practice, patients are much more present and active in Text A than students in Text B. This invites us to question whether attention to patients and patient involvement in evidence-based medical practice is more important than attention to students and student

involvement in education. If so, this is in line with our perception that in Text A, evidence-based practice is a partnership between doctors and patients, In Text B, it is an individualised, performative response to perceived inadequacies in professional behaviour and student achievement.

Text B tells teachers that the authors "know what works", assumes that teachers are "unsure" of effective strategies, and "frustrated by ideas that turn out to be fads and fancies"; teachers are thereby constructed as in deficit, en masse. While Text A also wants to provide support in good practice, this is constructed as a challenging and complex process, the pitfalls of which are present for all, including the authors. In Text A, four boxes complement the main text to demonstrate this complexity. The first box (notionally the "science" of the title) describes in detail the ten stages in making a diagnosis, including attention to developmental and family history, social situation and comorbidities. The second (the "art" of the title) describes developing a formulation, a theory about illness developed over time with the patient and including biological, psychological, socio-cultural and spiritual factors. These are all considered vital to finding reasons for illness and genuinely beneficial, feasible therapies. The third questions objectivity and describes how socioeconomic status and ethnicity of patients influence apparently objective decision making by doctors (practice and professionalism incorporating reflexivity and criticality). The final box (the "ethics" of the title) describes the ethical principles of respect for patient autonomy, non-maleficence, beneficence and justice that underpin psychiatric diagnosis. The dialogic interaction between the main text and these boxes represents the complexity of evidence-based practice in a profession that seems sophisticated, intellectually mature, reflexive and nuanced.

Text A offers segments of dot points, in a comparable way. These relate to defining effective teaching, factors other than quantitative evidence that need to be considered, and elements of an evidence-based programme titled "Success for all"; these are strategies used by effective teachers and distinctive teaching strategies that may be required by learners with additional needs. Alert to contradictions, we note that these segmented sections often function at odds with the main text, seeming to argue cases that contradict with other statements, and seem to us to align more with what we consider better practice (as opposed to a linear evidence-based teacher-centred process that homogenises diverse students as apparently advocated by early sections of the text).

While the various textual elements of Text A are consistent, cohesive and coherent, Text B undermines its own strict evidence-based approach with the difficult-to-measure concepts of changing student values, supporting student independence in the future and developing a sense of wellbeing in learners. The second segmented section recognises factors other than evidence that teachers take into account, including experiences, values, ideology, political beliefs, tradition and pragmatics. These, however, are presented as less reliable than "sound" evidence. Despite the treatment of students as groups, for example, those with the highly problematic label "mental retardation", the authors also claim that "one size will not fit all". One sentence in the text seems to come from a different source and to describe something other than the evidence-based approach predominant in other paragraphs:

Our strong advice is that you develop a repertoire of such [evidence-based] strategies nested within your own philosophy, personality, craft knowledge, reflective practice, professional wisdom, and, above all, your knowledge of the characteristics and needs of your students and your knowledge of local circumstances.

The more times we read Text B, the more bemused we were by its internal contradictions, its coercive posturing in relation to evidence-based practice conflicting with its snapshots of more holistic practice. It both determines to fix categories of students and yet is occasionally attentive to the diversity of learner needs. How to account for this? Is this a function of two authors with different perspectives and an inadequate editor? Is this because this version of medical evidence-based practice is an add-on to teaching, not yet adequately internalised and assimilated? Are the fragments of more holistic inclusive practice mere lip service to other ways of teaching, incorporated to secure hegemonic compliance from teachers? Are the authors' allegiances genuinely split? Or are they peddling what is neoliberally compliant but unsustainable at the level of craft?

This brings us to wonder if the possibility that the project of genuine inclusion is too disruptive for education to bear. Does this text actually seek to do the work of exclusion, a noted effect of inclusive education (Slee, 2013), by positioning teachers and students as subservient to science and an imagined, archaic version of medicine? This is a version of medicine very different from that presented by Text A, which leads us to question the motivation behind this particular discursive construct of medicine in education.

Conclusions of texts

We turn to the final two paragraphs of the texts. Andy feels Text A intertextually references RD Laing's famous chapter "The ghost of the weed garden" (1990), in which Laing describes Julie, who has chronic schizophrenia. This chapter and the book as a whole were a radical intervention in the psychiatric status quo, as Laing proposed that "normal" people might be more mad than those considered "insane". A corollary of this, in relation to neurodiversity in education, would be for Lucinda's student "Becky's" behaviour to be considered more appropriate than that of other students. Becky, with a diagnosis as being on the autism spectrum, could only come to class if she could sit cross-legged in a corner facing the wall with her laptop on the floor in front of her, against a black wall. While this proposition might be readily dismissed, thinking with Laing, the requirement for humans to spend two hours in a room with no natural light or ventilation, 40 screens on small desks in cramped conditions, uncomfortable chairs, a glaring projector light and enormous screen at the front of the room, no soft surfaces, multiple cords and devices dangling from the ceiling, busy overhead beams and harsh, amplified sound is something to be interrogated. Those classed as neurotypical might be able to endure these conditions, but at what cost? The biophilic movement is beginning to suggest that Becky's behaviour, which seemed bizarre to other students, was eminently sensible.

We include this example simply to demonstrate the kind of disruptive thinking that Text A countenances, even if only intertextually, through alluding to Laing and citing Launer, as two examples. Launer's work challenges "traditional" medical approaches, even questioning "diagnosis" itself (2021). There is no evidence of this kind of reflexive, creative and radical thinking in Text B, suggesting a much more static "body" of professional knowledge and more conservative orientation. The intertextual imaginaries of these texts, both explicit and implied, are very different. Along with the works mentioned above, Text A invokes stories, case notes, classificatory schedules, a patient-authored blog, prescriptions, referral letters and formulations. Its citations include both evidence-based academic literature and works critical of existing paradigms. Text B invokes reports, blueprints, graphs, standardised tests, percentiles and the massed works making up a "body of evidence". Its notes refer to quantitative research, and also studies showing how unscientific interventions such as facilitated communication and the determination of learning styles can harm students. There is some unintentional irony here, as certainly learning styles were introduced to education as empirically proven and scientific concepts. The authors here do not countenance that science itself changes, its truths change and provide no absolute, enduring warrants. Text A does not hesitate to accept this.

The final paragraph of Text A defines the general practitioner's job as being more like a gardener than a botanist, "applying their skills to nurture and support the health of their patients within their rich contexts" (p. 801). This metaphor is one of nurturing, attention, care and temporality. Text B desires to "tune" teachers in to "how sound research will enhance [their] teaching" (p. 6). Teachers who do not use the strategies in this book are out of tune, not in harmony, discordant, or, like engines, running rough. Teachers are figuratively realised here as instruments, or machines, to be operated on or by others (including the authors, the "body of research", academics and experts). According to Text B, teachers "should" become reflective practitioners, be self-critical and responsive, and produce research. Yet, contradictory to the end, this apparently means they should "find opportunities to collaborate with professional researchers to advance the evidence base for good teaching practice" ... by participating in randomised controlled trials. The authors close, in a paternal tone, with a desire that extends the machinic metaphor. They use second person ("you"), as they do throughout, ostensibly to "connect" with the reader, but also making a direct demand on our attention and, ultimately, compliance. The imagined success of their project is also coercively performed by the present tense of the final verb "are":

At the very least we hope that you will bring a scientific approach to your teaching... in other words, you are a data-driven professional.

To complicate this even further, however, Text B's true final word, in the very last endnote, suggests teachers begin to add to the evidence base by conducting action research. This is surprising, as teacher-led action research is a form of qualitative research that is devalued in the scientist-led evidence-based paradigm currently in fashion in education. Text A ends the formal section of the text with a reminder of the importance of "systematically exploring the science, art and ethics of mental

health experience” (p. 801). Patients are present to the very end, as those whose experiences and lives matter.

Different versions of medical evidence-based practice

These two texts offer very different versions of evidence-based practice and professionalism, despite evidence-based practice in education originating from medicine. We wonder what an education system that privileges Text A’s version of evidence-based practice and posits science, art and ethics as vital and similarly important would be like. We propose it would:

- incorporate evidence from all kinds of research, assessed critically by teacher practitioners understood to have the aptitude, skills and wisdom necessary to undertake this task (and prepared for this through teacher education). This would include a scepticism towards grand claims and an awareness of the ever-evolving nature of professional knowledge.
- privilege story and context, providing teachers with much more time to work individually and in small groups with students
- involve collaboratively developing formulations about learning, with individual students and their families, that incorporate biological, psychological, social, cultural and spiritual elements.
- regard learning as a partnership, rather than teaching as a monitored performance.
- be alert to the harms of formulaic teaching.
- require teachers to be reflexive about their own cultural backgrounds and abilities when working with students.

This picture, briefly sketched, invokes a profoundly different epistemological positioning to that of “what works” evidence-based practice. Knowledge would be understood as dialogically formed, open to critique and creative interpretation, and endlessly being debated with others, not pre-formed and delivered from on high, through asymmetrical power relations. Enacting a less positivist epistemology to make good choices in education, that include and work for all students, takes time, and time costs money. Yet this picture offers the kind of radical transformation that could enhance the lives of students. It could also raise the status of teaching, if this is what association with medicine aims to do. This picture borrows from medicine in ways that seem more aligned with the purposes of inclusive education. General practice, as the area of medicine dealing with the most diversity, through serving the public, is an alternative source of concepts, as opposed to epidemiology, which has dictated the version of evidence-based practice enacted in education. As demonstrated in Text B, epidemiological approaches colonise the field and place data and populations above individuals, and social scientists above practitioners expert in their own contexts and communities.

Conclusions

This study demonstrates differing versions of evidence-based practice enacted in two texts. Interdisciplinary study leads to deeper insights into each text being available for synthesis, through broader knowledge of the respective disciplines, their literatures, practices, concepts and traditions. Our research shows that a knowledge of diverse perspectives within medical paradigms is vitally important for those translating evidence-based practice into education. Educators need to ask: what are expectations of evidence-based practice? Have we fully evaluated and understood the different kinds of evidence-based practice in medicine? If educators must adopt practice from medicine, rather than inventing our own, have we translated the most useful version, the one best aligned with our aims of dignity and wellbeing for all students? An essentialised, quantitative "medical approach" can be used to eviscerate teaching of story and of caring, although this project is difficult to sustain, as the inconsistencies in Text B demonstrate.

The version of evidence-based practice espoused by Text B exposes an over-reliance on quantitative evidence, as opposed to the "science, art and ethics" of Text A. Why this imbalance? In thinking about imbalance, we think about power. In whose interests lies the subservience of teachers to published data? We believe our study highlights the urgent need for education to be reflexively critical about the ways evidence-based practice is incorporated into new models of teacher professionalism. It would be counter-productive if this intervention ultimately deprofessionalised teachers and made them less capable of responding to the needs of their diverse students. Text A shows how evidence can be positioned in a sophisticated and critical way, rather than the crude approach of "what works".

Returning to Aditya, the 10-year-old boy whose story features in Text A, the authors describe four possible medical diagnoses for his situation: anxiety; obsessive compulsive disorder; attention deficit hyperactivity disorder and autism spectrum disorder. They then reflect on how none of these differential diagnoses acknowledges the family trauma, divorce, cross-cultural bullying and other factors that may play important roles in Aditya's life. They advocate developing a comprehensive understanding of "what is going on" as foundational to choosing a good diagnosis and way forward; this makes a neat counterpoint to starting with an assumed "what works" to fix a labelled learning need via routine strategies.

If expertise in exploring "what is going on" rather than knowing in advance "what works" was adopted as a key marker of teacher professionalism, "evidence-based practice" may come to mean something very different from basing all pedagogy on randomised controlled trials. We encourage academics, teacher educators, curriculum designers and policy experts to experiment with prioritising "what is going on", and its attendant sensitivities to context, possibilities, diversities and multiplicities. Above all, our analysis indicates that educators need to be alert to the potential that translation of a dated, narrow, epidemiological-style notion of evidence-based medical practice will diminish and de-humanise education. As Text A demonstrates, in medicine, good choices are not made this way.

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