

The matter of 'evidence' in the inclusive education debate

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Summary

Understanding how best to support all learners to achieve their goals is a key aspect of education. Ensuring that educators are able to be provided with the best programmes and knowledge to do this is perfectly respectable. But what is ‘evidence’ in education and at what point is it useful and informative in inclusive education?

This paper considers the need for a better understanding of what should constitute evidence-based inclusive education. Research with a focus on evidence-based practices in special and inclusive education has been increasing in recent years. Education intervention, by its very definition, should be tailored to suit individuals or groups of learners. However, immediately this is at odds with the gold standard of research intervention, that of randomized control trials, yet, as is discussed in this chapter there are many advocates for evidence based practice confirming to the highest form of research methodology. This seems laudable, and who could argue with wanting the best approaches to inform programmes and teaching in all facets of education. However, the requirements for research rigour mean that it is not practically possible to measure interventions in inclusive education so that they are generalisable across many other students with support needs because the interventions need to be specific to individual need and therefore are not generalisable nor are they intended to be.

This chapter suggests that a narrow approach to what is evidence based practice in education is unhelpful and does not take into consideration the nuances of inclusive education. Evidence of appropriate practice in inclusive education is much more than robust scientific methodologies can measure and this should be remembered. ‘Good’ education is inclusive education which may or may not be recognised as evidence based practice.

Keywords

Evidence-Based Practices · Special education · Inclusion · inclusive education · Disability · Empirical evidence

Introduction

Belgian author Hugo Claus (1962/2009) said, “*We cannot accept the world as it is. Each day we should wake up foaming at the mouth because of the injustice of things.*” It is this sentiment that has kept advocates of inclusive education enmeshed in their fight for what they consider a socially just form of education, for everyone. Since the publication of the Salamanca Statement in 1994, inclusive education has been at the vanguard of polemic debate in education. Despite decades of academic, political and social deliberation, inclusive education remains as contested a construct as it was a quarter of a century ago. There are a myriad of reasons for this, and each has contributed to inclusive education being recognised as ‘a wicked problem’, just a few years ago (Armstrong, 2017). This title acknowledged the complexities that encapsulate what has been to date, an unattainable education ideal. One argument as to why inclusive education has yet to be actualised is the lack of evidence to support it as the *best*

way to ‘do’ education. While the notion of what constitutes ‘evidence’ in this context is problematic in itself, when partnered with the ‘wicked problem’ of inclusive education, a number of challenges present themselves. Perhaps the most obvious (and difficult) of these, is the fundamental question of what inclusive education actually is. Without a definitive understanding of something, it is almost impossible to measure and therefore provide evidence of its effectiveness. This is a question that has caused divergence of opinion between many academics, policy makers, as well as educators, and the ideas and arguments being circulated are wide and diverse (Norwich, 2007; Boyle & Heimans, 2014; Slee, 2018; Boyle, Anderson & Allen, 2020; Boyle & Anderson, 2020). Another problem that stems from this is who exactly is inclusive education for? Answers to this are as varied as the definitions that have been assigned to the construct (Anderson & Boyle, 2020; Graham, 2020), and brings into question *who* evidence should be collected from when attempting to measure the success (or not) of inclusive education. Yet evidence is what those operating within the current socio-political zeitgeist require and without it, inclusive education is at risk of becoming another Utopian ideal that finds itself sitting on the shelf of social reform. This chapter will explore the challenges of inclusive education as outlined above, and critique the role evidence has to play in the future of inclusive education.

The problem of ‘evidence’ in education

Gustavsson et al. (2017) writes that ‘evidence-based practices refer to specific school practices that have been determined to be effective on the basis of a sufficient body of high-quality empirical research’ (p. 469). Accordingly, evidence in education is most often seen as being associated with research findings produced by randomised control trials (RCTs) (Goldacre, 2013), as illustrated for example by the UK’s *Education Endowment Foundation* (EEF) or the US-based *What Works Clearinghouse* (WWC) toolkits. The focus is largely on mathematics, science and literacy, which is not surprising given these are the subject areas assessed in international testing regimes such as the *Progress in International Reading Literacy Study* (PIRLS), the *Trends in International Mathematics and Science Study* (TIMSS), and perhaps the most well-known, the *Program for International Student Assessment* (PISA). PISA is conducted by the Organisation for Economic Co-operation and Development (OECD) every three years and results are used to compare participating nations, and to create league tables of achievement. The stakes attached to this type of testing are high, so the desire for strategies that will raise achievement outcomes in mathematics, science and literacy is to be expected.

As a consequence, practices that are deemed to be ‘evidence based’ have been adopted and implemented in many different ways across many different parts of the globe.

However, there is a growing body of literature that questions the notion of ‘evidence’ in education (Muller, 2018; Meyer, 2017; Biesta, 2007), and challenges the belief that randomised control trials (RCTs) provide a secure gold standard for identifying *what works* (e.g. Hammersley, 2015; Scriven, 2008; Shaffer, 2011). Cartwright (2007) writes that RCTs can put severe constraints on the assumptions that a target population has to meet to justify generalisation and that, in some cases, other methods might provide more reliable information. Hammersley (2015) notes that RCTs do have many advantages, yet argues that by themselves they can provide little in the way of information about causal mechanisms and the conditions under which these operate – information that in the social world is less reliable or predictable. Other authors such as Thomas (2016) and Goodman et al. (2018) have voiced concerns about the relevance of RCTs in evaluating social real-world interventions, a matter broadly acknowledged by researchers involved in large-scale RCTs (Humphrey et al., 2016). Recent work has also pointed out that RCT findings might fail to capture the importance of contextual factors for programme evaluation in real-world school trials (Koutsouris & Norwich, 2018), calling into question the research and development approach to educational evaluation reflected by such research approaches (Norwich & Koutsouris, 2019). Concerns about the reliance on RCTs in education are not unexpected, as this recognised methodology emerged out of the medical sciences in the 20th century, in an effort to better understand the “unpredictable and unknown” responses to medical treatment (see Meldrum, 2000, for a more detailed discussion on this), rather than from the field of the social sciences. Consequently, RCTs generate empirical data, which while useful, should not be relied upon as the only source of evidence when interrogating good educational practice. As Cukier & Mayer-Schonberger (2013) point out, numbers ‘are far more fallible than we think’ (para 2).

Any collection of empirical data as ‘evidence’ in education seems to require some form of standardised measure, for without it, the data could not be considered to be valid or reliable. Muller (2018) argues that educational ‘(p)erformance is ... equated with what can be reduced to standardized measurements’ (p. 17), and as a consequence, the quality of practices being used in education are currently being critiqued through the lens of only those things that are ‘objectively measurable and practically controllable’ (Scheerens, Luyten & van Ravens, 2011b, p. 4). This poses the problem that what is measured is selected on this basis, rather than being selected because it is seen as having some value for students (O’Neill, 2002). Another

issue that arises from this reliance on standardised measures is it might assume all students are equals, when in fact they are not (Cramer, Little & McHatton, 2018). Students each bring their own set of experiences, knowledge and abilities into a classroom, as does the classroom teacher, and inevitably a teacher will adapt their teaching or behaviour in response to their students (Koutsouris & Norwich, 2018). So, trying to control for student and teacher factors when working to collect empirical evidence to support one or another educational practice or intervention, can prove problematic.

Despite the challenges described above, policy makers still pursue practices that are described as ‘evidence-based’ or as ‘what works’ to improve student outcomes, perhaps in an attempt to ‘impose order within a field that is complexified by the inter-related, the local, the specific and the idiosyncratic’ (Gorur & Koyama, 2013, p. 634). This demand has ensured that research journals and publishing houses continue to publish texts that describe and promote the latest revelations in educational practice, that ‘evidence’ has deemed successful, such as John Hattie’s internationally renowned ‘Visible Learning’ series. An interesting point to note with this particular piece of work is that the original league table of educational practices was developed according to their determined effect size. Yet Godard (2014) argues that basing educational decisions on effect sizes (as advocated by Hattie, as well as organisations such as EEF and WWC), has been subject to misinterpretations, to such a point that the practice raises ethical concerns. The focus on successful educational practice also brings to the fore the issue of publication bias (for example see Stentiford et al., 2018, for a discussion on publication bias for school-based reading interventions), which, if present, will skew the information that is released into the educational sphere.

Given the issues discussed here, it can be argued that the idea of ‘evidence’ in education is problematic, as evidence-based research cannot provide certainty for educational practitioners, as illustrated by Winch et al. (2015):

Teachers are not going to be given a recipe for *what works* from research; by its nature, educational research cannot provide certainty of outcome. What it can achieve is to provide reasonable warrant for decisions that must be taken by teachers, in full knowledge of the circumstances in which they work (p. 210).

It must be noted before the conversation moves on that the argument being made here is not that an evidence-based approach should be abandoned. As Cukier & Mayer-

Schonberger (2013) point out, ‘data can help improve things, if it’s the right data used in the right way’ (para 18). This will be explored later on.

What do we mean by inclusive education?

Having examined controversies in understanding evidence in education, an additional issue is that inclusive education is a contested notion with many interpretations. For example, Warnock’s (2005) approach to inclusion as academic and social participation irrespective of placement could be compared to the *Index for Inclusion* which reflects an understanding that emphasises shared cultures, curricula and experiences (Booth & Ainscow, 2002). Inclusion has also been explored with regards to the nature, breadth and flexibility of the curriculum to accommodate a diversity of learners, as for instance inclusion is discussed by Florian and Spratt (2013) and Lewis and Norwich (2004) in the context of inclusive pedagogy or Douglas et al. (2016) in terms of inclusive assessment. From a philosophical perspective, Felder (2018) has examined the relationship between inclusion and choice, and Allan (2005) discusses inclusion as an ethical obligation, a matter of social justice and rights. Slee (2018) has developed a more radical argument presenting inclusion as a ‘provocation’ that calls for a radical rethinking of education, with inclusion presenting a challenge to the status quo.

Inclusion in education is often strongly associated with special educational needs and disability (e.g. Norwich, 2007) and this is not surprising as it grew out of the special education field; however, it has also been used to explore the experiences of children and young people across the range of human diversity and across different fields – such as gender studies (Rohrer 2005), disability studies (e.g. Foster et al., 2003, deafness and education), socio-cultural theory (Valenzuela 2007), and critical race studies (Vasquez Heilig, Brown & Brown 2012). The significance of this is that the focus of inclusion is not only on the experience of disability but also on different dimensions of identity as well as their intersections. This has led both to a broader recognition of the importance of inclusion for all children, as well as to the reduction of it to a buzzword without a particular meaning.

With regards to disability, inclusive education has also often been associated with education in a mainstream school (Booth & Ainscow, 2002). However, inclusion for some students might not refer to education in the regular class of a mainstream school, either because the range of their needs might not be able to be fully met there, or due to the social and emotional dimensions of mainstream schooling, or just because this is the preference of

themselves and/or their parents (Norwich, 2008b). For some of these students, a special setting or some sort of combination of special and mainstream provision could be considered more suitable to meet their learning needs and ensure their participation (Warnock et al, 2010) and this is why some researchers have discussed the ‘blurring’ of educational provision (such as Norwich, 2008b; Rix et al, 2015; Boyle & Anderson, In Press) . There are those who now consider the provision of inclusive education to be a continuum, with full inclusion sitting at one end and separate educational settings (such as special schools) at the other (Rix et al, 2015). In-between these extremes lies a range of options (unit, resource base, special class or school – with full or part-time attendance), representing different combinations of ‘inclusion’.

An early representation of a continuum in education provision is Deno’s (1970) US-based cascade of special educational services which emphasises both placement and curriculum (revisited in Deno, 1994). Deno (1970; 1994) notes that the cascade’s underlying assumption is that it is not students who ought to fit in with the system of provision, but that the system should be flexible to adapt and meet the needs of the individual child. Thus, the cascade’s purpose is ‘to assess how judgments might be made at the critical boundary between regular and special education responsibility’ (Deno, 1970, p. 234). The UK-based Warnock Report (1978) took a similar approach to discuss provision. The full continuum of SEN provision as described in the report (paragraph 6.11) presented a number of educational settings ranging from mainstream to home education. In a similar way to Deno’s (1970) cascade, the foundation of the continuum is placement; the Warnock Report (1978), however, made more nuanced distinctions in relation to curriculum (shared or separate curriculum) and added the dimension of participation. According to the report, it is the different combinations of three elements i. means of access to the curriculum, ii. need for a special or modified curriculum, and iii. the social and emotional dimension of schooling, that call for different kinds of provision to ensure an ‘effective, sensitive and flexible matching of needs with services’ (paragraph 6.1) for each individual child. This suggests that, in tailoring provision for each individual child, there may be as many different positions on the continuum of provision as there are students.

Taylor (1988, 2001) examined the continuum of provision focusing on the principle of the (USA-based) ‘least restrictive environment’ (LRE) which Nisbet (2004), in turn, described as a relative term since ‘what is restrictive for one person may be inclusive for another’ (p. 213). Although it refers to ‘environment’, LRE could be seen to apply beyond placement. Yet,

Taylor (2001) also acknowledged controversies associated with LRE and the notion of a continuum of provision, including the danger that new approaches might become additional slots on the continuum rather than trigger a re-thinking of services and support. In addition, Booth (1994) argued that the range of options along the continuum of provision can limit the opportunities of some students for being educated in local mainstream schools.

Norwich (2008b) argued for a multi-dimensional model of provision since ‘designing educational provision for all children [...] involves balancing common and different aspects, and this can sometimes lead to difficult choices’ (p. 141). The main axis of Norwich’s model is commonality and differentiation, and placement (where are students taught?) is just one of the dimensions involved, with the additional dimensions being: identification (how can students be identified?); curriculum (what are students taught?); level of governance (which agency decides about provision?); and participation (both academic and social). Norwich (2008) notes that if the aim is to develop ‘flexible interacting continua of provision’ (Norwich & Gray, 2007, p. 30), all areas ought to be considered.

The work of Rix et al (2013a, 2013b, 2015) moves beyond linear continua; they proposed the idea of a *community* of provision – or ‘the collective delivery of services broadly related to learning, health and welfare involving a range of providers within a network of agreements’ (Rix et al., 2013a, p. 2). Rix (2013a) identified a range of dimensions: space (where support takes place), students (who is being supported), support (quantity and type of support), staffing (who is providing the support), strategies (quality of support), and systems (issues of governance). This framework was used to explore community of provision across different national contexts, including Ireland, Japan, Italy and Norway.

Despite the conclusions reached by the various researchers discussed above, there are still those who advocate vehemently for the right of all children and young people, regardless of ability, to access an education in their local schools with their peers. As Slee (2018) argues, ‘exclusion by any name remains exclusion’ (p. 92).

Is special provision still an option?

It is undeniable that the provision of inclusive education is complex and multi-faceted. One of the questions that remain is whether special provision, likely involving some sort of segregation, can still be an option. It would be reasonable to argue that there have been overall improvements in education for many students with disabilities since the Salamanca Statement

(UNESCO, 1994). There has also been widespread recognition that a separate special education system, as it existed leading up to the Statement, was not acceptable in its current form. However, efforts to promote mainstream education for all, also called full inclusion, seem to have plateaued or even waned (Boyle & Anderson, In Press; Anderson & Boyle, 2019). Part of this issue is because the aims and purposes of inclusive education have not been uniformly defined thus making research and implementation more difficult.

Slee (2018) is clear that any form of return to segregated schooling is wholly unacceptable both at the societal level of social justice but also at the level of the individual. However, it is also the argument that by advocating an education system with no segregated special education, is wilfully neglecting the needs of some who have high level needs and who can only effectively receive the support that they need through specialist and separate provision (Anastasiou & Kauffman, 2012). The issue of segregation in society is problematic when applied to education according to Kauffman et al. (2020). Yet, the authors state that by claiming the moral high ground they are ignoring ethical problems inherent in full inclusion. One of the perennial issues of full inclusion is that many teachers and academics report that it is unattainable within the resources provided by the authority (Boyle, Topping, Jindal-Snape & Norwich, 2012). The ethical issue of advocating for full inclusion, without adequate resources is worthy of comment. Kauffman et al. (2020) suggests that by

“...treating all students alike in education, regardless of their abilities or disabilities, violates not only moral responsibility to treat students fairly but ethical principles of meeting individual educational needs...” (p. 81).

Kauffman and colleagues suppose that the notion of inclusion ‘at all costs’ is a form of romanticism not based on rationality but on misguided social justice. Yet Graham (2020) argues that inclusive education in many countries has been expected to work within an ‘inflexible twentieth-century education system(s)...built with only particular students in mind’ (p.20). If inclusive education has not been given the conditions it needs to be successful, that is reform at the system as well as the school level, then saying it ‘doesn’t work’ could be considered to be unfair.

Norwich (2008a) explored tensions associated with inclusive education building on Minow’s (1990) dilemma of difference, i.e. a tension between: treating people according to their needs (that is recognising individual differences) with the possible consequence of stigmatising; and treating all people the same (with the danger of becoming insensitive to individual differences) which in turn might lead to loss of opportunities. Norwich (2008a) used

the dilemma of difference to examine identification (categories and diagnosis), curriculum (differentiated curricula and teaching) and placement (continuum of provision) tensions, and found that in such tensions both sides represent equally desirable values, and that any balancing is constantly under threat. This is an argument that recognises that there cannot be easy answers to the questions associated with inclusive education.

Does ‘evidence’ matter in the inclusive education debate?

Cook and Cook (2013) suggest that one of the most critical issues of contemporary inclusive education is the existence of a significant and persistent gap between the theory of what good practice should be and the reality experienced in schools. Some of the reasons why this might be the case have been explored previously. In addition to these, this current era of ‘metric fixation’ (Muller, 2018; Hardy & Boyle, 2011) has presented the possibility that practices with the potential to improve student outcomes may not have been implemented on the grounds they do not have a base of empirical data behind them to come under the banner of ‘evidence based practice’, and other practices may have a body of evidence that is not relevant. This second point was noted in a large review conducted across Australian schools entitled *Inclusive education for students with disability: A review of the best evidence in relation to theory and practice*. The authors of this review suggest that for many of the practices found to be in use there was “...a lack of evidence-based data on the impact of these practices on changes in learning outcomes for students with disability” (Forlin et al., 2013, p. 5). Just because something is not labelled as ‘evidence-based’ does not mean it will not work, and just because something is, does not mean it will work for everyone. However, the notion of ‘evidence-based’ practice for inclusive education should not be comprehensively dismissed.

As noted earlier, evidence based practice has become an increasingly *in vogue* term in educational nomenclature, yet it can be somewhat dichotomous. The construct can be viewed positively in that it can give educators a clear indication that a practice has been ‘tried and tested’ in a rigorous and credible way, yet on the other hand, the term is used ubiquitously, inappropriately and without sufficient information for educators to make an informed judgement about the quality of the ‘evidence’ (Cook & Cook, 2013). Educators need to understand the ‘evidence-based’ behind the practice, to ensure it has the potential to be effective for the target group. The importance of this point is illustrated by Raynor (2007) who

discussed the lack of veracity of the incredibly popular *learning styles* approach to teaching, with books, seminars, and training packages all available for purchase. Schools and educators were hooked, however there was no actual evidence that children and young adults had personal learning styles, which came as a surprise to many. Yet there was a positive side to this approach: it encouraged teachers to change their pedagogy by using different modalities when attempting to teach diverse groups of students working at different levels.

Inclusive education presents a significant challenge for the collection of evidence as its very existence is a result of diversity. This raises questions about the collection of evidence: Who evidence should be collected from? In what context/s should it be collected? When planning for education, consideration must be given to what works for certain groups of children in certain environments (Boyle & Anderson, In Press). Evidence may not necessarily be regarded as *generalisable* across all student cohorts and all education environments, as some scientific investigations would expect. However, to support students, education has an obligation to reasonably focus on individuals, usually with a variety of educational needs. These collective needs will differ between student groups, and other factors, such as demographics, can also make a difference. This ‘difference’, endemic of inclusive education, presents a challenge for the collection of numerical evidence, and Norwich (2015) argues this needs to be understood: ‘ultimately empirical matters – facts – cannot determine values, but empirical matters can at least illustrate the consequences of certain practices, such as inclusive practices, and then it is for research users to judge how these consequences bear on their educational values’ (Norwich, 2015, p. 55).

The link Norwich makes between inclusive education and value is an interesting one and raises another question. Should something considered by some as a moral obligation (Kauffman et al., 2020) be dependent upon empirical evidence? Inclusive education, at its core, is about social justice and fairness (Shyman, 2015) and therefore could be seen as representing a value commitment which is not subject to validation, as all children and young people (not just specific groups) should have the right to engage in equitable educational opportunities (the stance taken by UNESCO, 2015). Ainscow et al.’s (2011) research showed a direct link between coming from a ‘disadvantaged background’ and having poorer educational outcomes. If we accept the results of Ainscow and colleagues, then it can be assured that the ‘...relationship between schooling and social circumstances...’ (Anderson & Boyle, 2020, p. 20) is a causal one. Inequality exists in education, with some systems more inequitable than others (see OECD, 2018), yet this is sometimes disguised in the

government school ideal that everyone has a fair chance to achieve - all one has to do is work hard! Of course, this ideal fails to take in the question of equity. Some students need more support to learn than others do, just as some need more support to access the wider opportunities which education can afford. Internationally there are incongruences regarding who completes school and who does not (e.g. Lamb et al., 2010). In short, who is able to use education as an opportunity to better themselves, is subject to the vagaries of many different variables and despite attempts to close the gap between educational advantage and disadvantage in society, it continues to grow (Neische & Keddie, 2016). There are those (see Graham, 2020; Harris, Ainscow, Carrington & Kimber, 2020; Florian, 2019; Slee, 2018) who contest inclusive education, if enacted effectively, could counter this trend, and continued support from global organisations, such as the United Nations and UNESCO, maintains inclusive education firmly on the international education agenda (Artiles & Kozleski, 2016).

Inclusion is not incompatible with an evidence-based discourse, however a more nuanced understanding of what counts as ‘evidence’ in education is needed, as well as a clearer definition of inclusive education. As the late South African president and campaigner for equality stated, ‘education is the most powerful weapon you can use to change the world’ (de Villiers, 2015, Para. 1). Everyone should make sure that what happens in classrooms and schools works, for all students, irrespective of whether it can be regarded as evidence based.

It is reasonable to question whether an empirical ‘evidence base’ is meaningful for a complex educational practice such as inclusive education in the way that it would be for scientific subjects. Understanding if a particular approach is going to make a positive difference is apposite, however requiring an ‘evidence based’ label may not be possible, or necessary, for the construct of inclusive education, or many of the practices it encompasses.

Conclusion

There is a perpetual drive in education for improvement and much of this has to do with government policy. Yet, *“the system reproduces inequality, and even though teaching staff are constantly scrutinized through various mechanisms disguised as “quality improvement” ...nothing much changes”* (Boyle & Heimans, 2014, p. 53). As Boyle and Anderson (In Press) discuss, there is an issue with momentum in inclusive education and in its current guise, the plateau may already have been reached. But this does not mean the push for a more socially just form of education should cease. Current commentary about whether there is an evidence base for inclusion does not improve education for students both with and without additional

support needs in schools. The important aspect to consider, above all others, is that if in professional judgement a student's educational attainment is improved through the implementation of a particular practice, then it should be employed. Empirical evidence can be useful, but it is not the only form of evidence that may be applicable in many diverse educational settings.

Inclusion is not incompatible with an evidence-based discourse, however a more nuanced understanding of what counts as 'evidence' in education is needed, as well as a clearer definition of inclusive education. As Nelson Mandela, the late South African president and campaigner for equality stated, 'education is the most powerful weapon you can use to change the world' (de Villiers, 2015, Para. 1). Everyone should make sure that what happens in classrooms and schools works, for all students, irrespective of whether it can be regarded as evidence based or not.

Acknowledgements

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