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Our need for certainty in an uncertain world: the difference between special education and inclusion?

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Despite decades of effort to achieve inclusive education systems, the emphasis on special education persists. This article explores the contradictory impulses that underpin these two concepts and considers whether they can be brought together. It does this through the development of two models; a model of certainty and a 'model of uncertainty'. These models seek to represent and create a platform for thinking about the emergence and perpetuation of these two contradictory impulses and how these contradictions are experienced and might be resolved.

Key words: **inclusion, special education, model, education systems, doubt**

Introduction

This article seeks to go behind the various theoretical positions that pervade inclusive and special education and explore their conceptual differences. It sets out a background to current challenges for inclusion and special education, outlining the contradictions within them using a mix of research and the author's own perceptions, as a 'native informant' (Toulmin, 2001). It introduces a model of certainty and a 'model of uncertainty' to explore these issues, and sets out how these are evident in our understandings of learning, the goals of education and bureaucratic responses to resourcing. This article

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emerged from an attempt, in particular, to understand how certainty and uncertainty are experienced in relation to special education and inclusion.

In most countries, the initial enthusiastic drive for inclusion has been met by a continued and frequently resurgent role for special education in various guises (Richardson & Powell, 2011; Rix, 2015; Hausstatter & Jahnukainen, 2015). Where systems have changed, practitioners recognise that practice has remained largely unchanged or has soon reverted to what was being done before (Rix et al., 2013). This is not perhaps a surprise, as for more than a century special education has been concerned with accommodating individual differences through institutional transformations (Gerber, 1996). The continuing high profile for special education may also be seen as an example of a wider educational tendency. Education seeks singular shifts, aiming to deliver urgent change, only to find that change itself is a marathon, where students are failed by an educational establishment at loggerheads with itself (Shirley & Noble, 2016). As a consequence, schools experience waves of reform, that in turn challenge and return to 'traditional grammars' of schooling, those regular structures and rules that have organised the work of instruction, such as single teachers, subjects, classes, lessons, age-grades and testing. The traditional grammars of schooling also attract people. They are reinforced by habit; they offer a sense of security, while reformers often lack political awareness, become out of touch with the views of school leaders and parents, as well as burning out and moving on (Hargreaves & Goodson, 2006; Tyack & Tobin, 1994).

Waves of reform generate contradictory impulses that serve as resistance to each other. For example, in many countries, the drive for inclusion has been allied to policy statements about teachers having a responsibility for all the students within their class (for example, EADSNE, 2012; AITSL, 2011; Skolinspektionen, 2016; Jøsendal, 2016), while at the same time they are expected to deliver the traditional educational skills and qualifications, frequently set within a framework of national curricula, standards and inspections. Within many countries, such as Nepal (Khanal, 2015) and Uganda (Bannink et al., 2020), the drive for inclusion is being sought in a social context where delivering education for all, in any form, is a profound challenge and can seem like an alien concept to many. Similar contradictions have long been evident in relation to key notions at the heart of the education-for-all policy discourse. For instance, there is a common call for collaboration even though there is confusion about what is meant by the term and little robust research into its effective delivery and impact. What research there is suggests

that its implementation is inconsistent (Kennedy & Stewart, 2011) and there is a need to establish shared understandings across 'deeply entrenched professional boundaries' (Edwards, 2012). Similar discordances have been evident in relation to inclusion (for example, Amor et al., 2019), personalisation (for example, Courcier, 2007; Beach, 2017) and differentiation (for example, Hart, 1996; Gaitas & Martins, 2017).

The conception and development of inclusion has therefore been within a context of contradictory values, aims and discourses (Arnesen et al., 2007). These contradictory policy impulses can be seen to underlie the tensions and contradictions in how we, the education community, frame our responses and solutions to the challenges of a (truly) diverse classroom population. People are very aware of the competing and contradictory policy context in which policy goals are situated, as Barton (2003) noted concerning advocates of inclusion. Many of us understand how concepts such as inclusion, personalisation, collaboration and differentiation are interwoven with a complex web of personal, professional, cultural and historical experiences, values and assumptions. However, it is harder to recognise these contradictory impulses as they are played out in practice. Well-known conceptual terms seem to have a universal shared meaning to the user, or at least one that feels very similar, even though they can have quite a different heritage within different contexts or invoke widely varying interpretations and responses.

This contradictory framing is also evident in the ways in which policy makers and practitioners use and apply the language and ideas of theorists and researchers within education. Concepts emerging from behaviourist or socio-cultural interpretations of learning shift out of their original domain and come to sit alongside those from developmental psychology, constructivism and social constructivism, as well as from neuroscience, and business and management theory. Key documents can emerge, such as the Early Years Foundation Stage document in England, which are based on widely differing evidence from different theoretical paradigms, recommending actions that seem compatible but are fundamentally contradictory (Rix & Parry, 2014). Such a mix is also evident when we look at the variety of approaches that research suggests are effective in relation to special and inclusive education. Mitchell (2014) provides an example of this in his extensive analysis of research from across the field, in which he identifies practices identified as effective in special and inclusive education. He places their theoretical sources under three broad headings of behaviourist, constructivist/cognitive and social approaches.

Two views – special education and inclusion

The different interpretations of the emergent concepts frequently put people at odds with each other and situate their thinking in ways that limit their opportunities to resolve the challenges they face. This is exacerbated by our formalised processes. For instance, in a previous article (Rix & Matthews, 2014), we identified the difference between people's formal and informal consideration of context. We compared data from documentation produced by the formal processes (in relation to the first nine years of life for one young boy with special educational needs) with interviews from an ethnographic study with two families. Within interviews and discussions, parents and practitioners talked of the child within context, mentioning multiple influencing factors. However, from the hundreds of pages of documentation, there were only three or four mentions of contextual opportunities or complicating issues. Similarly, a Swedish study involving content analysis of 51 individual education plans only identified two that in some way recognised a challenge or opportunity as a wider school issue (Isaksson et al., 2007). As has been recognised in relation to nurses, the systems used to record information appear to socialise practitioners into a 'thought world' that integrates top-down criteria into day-to-day practice (Bowker & Leigh Star, 1999). They adapt 'the particulars of the world so that they fit within the general schemas of the organization' (Brown & Duguid, 2000). This is a key component of those 'deeply entrenched professional boundaries' and why practitioners talk of the different languages of education, health and social care (Rix et al., 2013).

These boundaries and languages are part of the wider social support and education system which is premised upon selection. People are divided up as they move through the system. This is not a recent phenomenon. Toulmin (2001) talks of the emergence of disciplines and their increasingly narrow focus, with cadres of specialists, focused on ever narrower tasks. Similarly, special education and psychology had origins in specific tasks with the purpose of selection and intervention, such as the measurement of behaviour (Clough, 1995) and grace (Goodey, 2011). Their emergence hugely influenced the establishment of special educational needs and the definition of the acceptable range of school performance and behaviour (Richardson & Powell, 2011).

The tendency to divide and select is evident globally too. Within a South African context, for example, at the time of writing, inclusion policy is increasingly being delivered to people identified as having intellectual disabilities through three curricula, allocated through screening (McKenzie, 2020); while in Mexico and Chile over 70% of disabled children are being educated in special schools

(Marchesi, 2019). In 2011, we examined special education in 55 administrations in all parts of the world (Rix et al., 2013; Rix et al., 2015). We found evidence of a continuum view in some form in all 50 countries we examined; primarily continua of settings and child, but others too. We undertook a systematic review of the literature which identified 194 concepts associated with the notion of a continuum. These 194 concepts were themselves categorised as continua of space, staffing, students, support, strategies and systems. A central ontological view was that activity and identity could be broken down into component parts. A process of 'technical rationality' (Schön, 1983) was also in evidence. To become a professional, it was necessary to acquire generalised, systematic, theoretical or scientific knowledge; this gave superior status to the individual with ownership of that knowledge and even greater status to those who research and deepen that knowledge. An inherent contradiction emerged, with practitioners being seen as lacking a particular type of knowledge about a particular type of child (for example, Distin, 2006), while having the capacity to select people for particular interventions (for example, Jackson, 2006).

This ontological view that things can be categorised so that there can be a matching response is evident across the valued knowledge of special education too. In 2005 and 2006, I reviewed a variety of special education publications for journals (for example, Reid, 2005; Brookes, 2005; Howarth & Fisher, 2005; O'Regan, 2005; Miller & Ockelford, 2005; Bates & Munday, 2005; Hartas, 2005; Brown, 2005). All of them, in some way, began with characteristics of a specific impairment, then considered how to identify and screen for it, and then moved on to what approaches to use with this group. Even a book that is largely framed around social responses to alleviate difficulties begins with a description of the 'problem child' and highlights the importance of assessment before moving on to the practices that can initiate, exacerbate or mitigate the behaviours (for example, O'Brien, 2018). This approach is evident too across audiences and formats, such as for parents, practitioners and the people who are the focus of the label, in general texts (for example, LaRue, 2015), accessible texts (for example, Jones & Heming, 2015) and on websites (for example, National Down Syndrome Society, 2020). The desire to focus on specific categories and interventions is also evident in many books which are framed to look at special education needs more broadly (for example, Bates, 2016).

While special education reflects a wider selective function of education, inclusion emerged in the 1980s and 1990s as resistance to it, since inclusion seeks to transform everyone's place in the whole and rejects processes that fix someone in a position. This is not to say that issues now associated with inclusion do

not have a longer history. In the nineteenth and early twentieth century, people were presenting evidence that generally the children made better social and academic progress in ordinary classes (Cole, 1989); there were active debates about types of education, risks to children and the desirability of segregation (Read & Walmsley, 2006), with school inspectors recognising that separation was not the solution and that 'slum clearance, good nutrition and school health services would be better cures' (Cole, 1989). This resistance has been evident from the outset. In the Salamanca Statement (UNESCO, 1994), for example, there was mention of the need for a continuum of support to match the continuum of need, but this was within every school, rather than across schools; and there was discussion of a curriculum to suit different abilities and interests, but it was clearly stated that this should not be a different curriculum.

Across a broad sweep of literature, inclusion can be seen as an 'assault on oppressive vestiges of the past as a way of contributing to alternative futures' (Slee & Allan, 2001). It involves a change in the 'behaviour' of adults (Ainscow & Sandhill, 2010), adopting a pedagogy that is underpinned by a principle of transformability (Hart, 2010), drawing flexibly upon a class-community and co-operative learning structures (Naraian, 2011), not ignoring individual needs but addressing them 'within a larger framework of "we" as a class' (Bannink et al., 2020). It has called for a curriculum based on values and rights (Booth, 2011). Inclusion has also been widely represented as an ongoing process (UNESCO IBE, 2008), active and without end (Flem & Keller, 2000), evolving and changing continually (Hausstätter, 2014). It is a commitment to eliminate barriers proactively, to respond flexibly and to create change in the policies, practices and cultures of 'regular' schools (CRPD, 2016). There is a strong message that people work towards reaching out to all learners, that they continually strive for this goal, even though they will not arrive (Ainscow, 2000). It can be seen as mixed with exclusion in 'a messy series of compromises, adjustments and individual preferences' (Corbett, 1997).

Inclusion, as it appears in the literature, reflects an ontological position that views practice as fundamentally uncertain and knowledge as being emergent and situated, where understanding is always incomplete, there is no single correct way to support the learning of any child, and our thinking and conclusions must be questioned (Hart, 1996). Inclusion can be seen as entwined with how we define good education, interrupting the democratic order, with a beautiful risk at its heart (Biesta, 2010, 2013).

Certainty, doubt and the reduction of uncertainty

The ontological positions of special education and inclusion were at the centre of an academic debate that took place between Kauffman and Sasso (2006a, 2006b) and Gallagher (2006) in the journal *Exceptionality*. Kauffman and Sasso (2006a, 2006b) contended that postmodern approaches to special education (and other applied social sciences) are in direct conflict with the scientific method and that at their heart is a philosophy of doubt. Scientific method acknowledges uncertainty and seeks to reduce doubt by testing a dominant view and alternative views. However, they maintained that the postmodern approach cannot reduce doubt, because it celebrates uncertainty and abandons notions of objective truth. The 'organised scepticism' of scientific method, for them, was the best way to seek objectivity and truth and to reduce uncertainty for special educators. In responding, Gallagher (2006) asserted that a commitment to partial or relative objectivity is undermined by our incapacity to prove objectivity, to clearly demarcate it from subjectivity. This should not undermine respect for evidence, logic and reasoning or calling on prior knowledge, since these are part of both relativism and scientific method. However, they are also both social processes, requiring interpretation. So, understandings at the heart of special education, such as categories, will invariably involve value judgements even though they seek to provide a means for anchoring certainty (Gallagher et al., 2014).

Starting from these contradictory positions, Kauffman and Sasso asserted that these different views of reality cause an insurmountable rift, while Gallagher recognised that they had led to endless disagreements about the nature of research, its correctness and worth, and that these disagreements seem to defy resolution. Despite this, both recognise that we can never know things with absolute certainty and both recognise the importance of being able to make decisions. This is, of course, more than a spat between theorists or researchers which applies to the academic work in the field. It is quite possible that this dichotomy is also at the heart of the contradictions between policies and the ways in which people apply them.

Looking across the literature from the two fields, can this clash between the search for certainty and the questions of uncertainty help us to envisage why practitioners, policy makers and the wider populace respond as differently as they do, without them necessarily being interested in the theory? Below I present the processes that emerge from the literature when we follow these oppositional starting points, a model of certainty and a 'model of uncertainty'. These models

are introduced by a descriptive account and are then represented through two figures, to explicate both the underpinning framings and how they are applied.

Certainty and uncertainty experienced within special education and inclusive education

A model of certainty	A 'model of uncertainty'?
They begin with certainty, perhaps seeking it or wanting it; perhaps believing in it or thinking with it. They arrive with a certain role within a system and an expectation that they will define the parameters of the problem, separating it from the surrounding noise and individualising it in the process. The individualised struggle is understood as a characteristic, something which can be identified or classified. So it is that special education literature opens with characteristics of a specific impairment. In defining and understanding each characteristic, people will think in scientific, institutionalised or legal ways. They would see personal or physical realities in light of their role and the norms and idealised rules of that system. Consequently, any identified characteristic would probably be situated biologically, culturally and/or environmentally as established by these roles, norms and rules.	They begin with uncertainty; perhaps accepting it or recognising it for what it is; perhaps seeking to confront it or thinking through it. They would arrive seeking to question any preconceptions about the situation and the context in which it has arisen, acknowledging its uncertain relational nature and the interdependence of people within it. In seeking to explore or confront this they would seek to engage critically and reflect on the situation. They would think in hypothetical ways, seeing the dilemmas that surround us or seeking pragmatic, proactive, reactive or radical pathways. They would recognise difficulties within a system as an experience for all involved; as Florian (2015) suggests, this experience would be individualised but primarily socially situated.
To build on this recognition of a characteristic they will need to seek causal connections between other characteristics as well as between objects, subjects and behaviours. They would aim to observe, measure, discuss and prove these connections. They will create 'semiotic chains of association… constructed out of contrasts and exclusions' (Richardson & Powell, 2011). So it is that in the books, they move from the characteristics to identification and screening.	To move beyond uncertainty, they need to find possibilities, which arise from the situation in which they are. In exploring possibilities that arise from the situation, they would look to develop an understanding of the context, accepting its relational nature – both personally and culturally. Allan (2008) talks of the unpredictability of learning, the search for something undecidable taking place within an ethically rich drama. She calls for teachers to create openings for inclusion.

A model of certainty	A 'model of uncertainty'?
These causal connections will provide knowledge to apply within their fields and within their lives, which will both be informed by and inform the certainties with which the process began; their 'arguments preserve their purity' (Toulmin, 2001). The emergent understanding of a characteristic and its relational nature will be responded to both collectively and individually, informing further that characteristic and people's understanding of it. The books move to sections on how to deal with this 'type of person'.	This leads them to seek perspectives from individuals who have an insight into the experience so as to develop a collective view of that experience, asking questions of the people and the systems. This is echoed in the calls for collaborative models of teaching and learning, though this comes in many forms (Solis et al., 2012), and is echoed too in calls for educators and learners not to merely be 'participators within' but to be 'contributors to' educational spaces (Veck, 2009).
The individual is being fixed by a singular core identifier (frequently understood as difference, ability, defect, deficit or difficulty), becoming an absolute within the system; the title of the book. This interpretation of the characteristic can now be tested and judged against the processes of certainty, which in turn contributes to the parameters of the whole or part of the whole. The individual and the characteristic can be encapsulated within a fact or a law or a document or a rule or a recognised truth; this provides definitions or boundaries or norms, an evidence-base for the future. People will need to read many books. The ways in which people deal with the encapsulated identity will be governed or guided by expert knowledge, delivered through formal channels (see Figures 1 and 2).	A possible way forward will emerge, one that is not defined in a fixed way, but has expectations and recognises the uncertainty of any solution and the need to continue questioning. Conclusions that they may come to will be recognised as momentary positions (Benjamin et al., 2003), they will contribute perhaps to an understanding of an identity as complex and shifting (McDermott & Varenne, 1995) or 'more than one single other' (Dederich, 2015); one that is relational to the context and others' perspectives. These momentary positions will themselves be other possibilities. Things will not fit neatly. They will be positioned among opportunities and risks. Responses will need to be flexible within the possible disorder, where shifting identities have porous boundaries (see Figures 1 and 2).

Figure 1 represents the underpinning framings suggested by the literature, while Figure 2 represents how these framings are applied to those who struggle within our education system. An attempt has been made to create visual allegories within the models, in particular the stronger, bolder lines of the model of certainty and the misted, broken lines of the model of uncertainty. The misted, broken lines are also a nod of recognition to the underlying

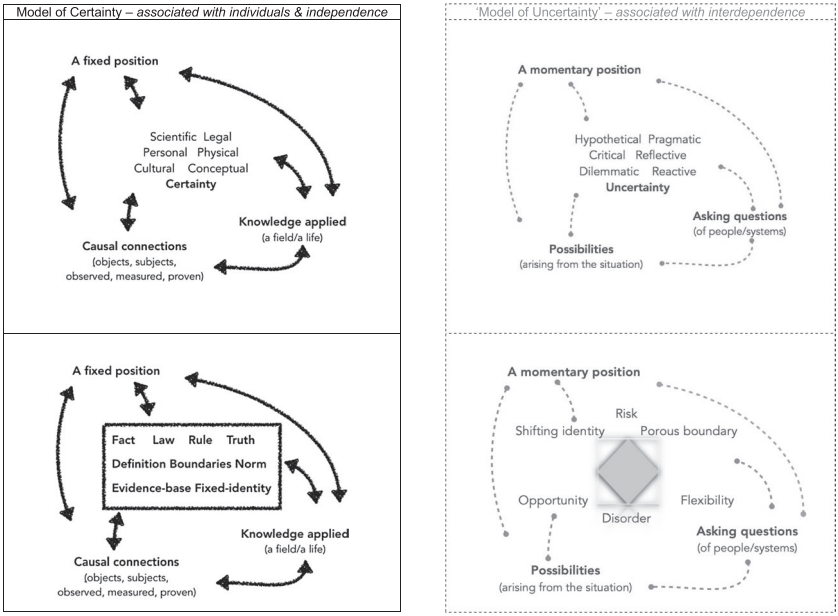
irony of producing a model of uncertainty which by its nature implies certainty. The box around Fact, Law, Rule, Truth and so on in Figure 1 and Difference, Ability, Defect and so on in Figure 2 represent their absolute, constrained and constraining nature; whereas the grey shape between the words Opportunity, Risk, Flexibility and so on in Figure 1 and Uncertainty, Expectation, Questioning and so on in Figure 2 represent the absence of a fixed position. The second image in Figure 2 is also attempting to show the multiplicity of positions inherent in any moment and by introducing an empty space to suggest the opening up of possibilities.

Some immediate concerns

People within systems seeking certainty are aware of the problems that can be created by those systems. The problems are frequently evident on a large scale. However, the institutional and policy context limits their capacity to think outside and beyond those institutions' and policies' boundaries, constraining their responses (Ball, 1994). In order to compensate for the emergent lack of certainty, they will respond using the model of certainty. The need to re-evaluate and to re-visit may already be part of the systemic response to the challenges which they and the system are facing. They may redefine the parameters of a problem, or require evaluations to be undertaken by multiple people within the situation or across a period of time. Conflicting or confirming singular core identifiers may be found and used to demonstrate the complexity of the situation. They may create continua of provision and processes into which they can allocate people in an attempt to match systemic notions of need with systemic notions of appropriate support. They may produce policies of the sort identified above, exhorting people to move beyond professional boundaries, or which provide targeted funding for types of problem and areas of need, and so forth.

It is likely that people within systems seeking certainty will feel that their responses are what is required, in the face of a complex world. They may highly value these processes and their outputs, recognising that they play a fundamental role in the distribution of resources and evaluating their use across the system. However, the fundamental challenge is that seeking certainty oversimplifies complexity to make it manageable; in creating boundaries it not only restricts the problem to an individual or a small population of individuals, so that shared or less obvious difficulties are missed, but it also misses the range of possible other solutions that may exist within the collective experience of the context. It limits our capacity to take advantage

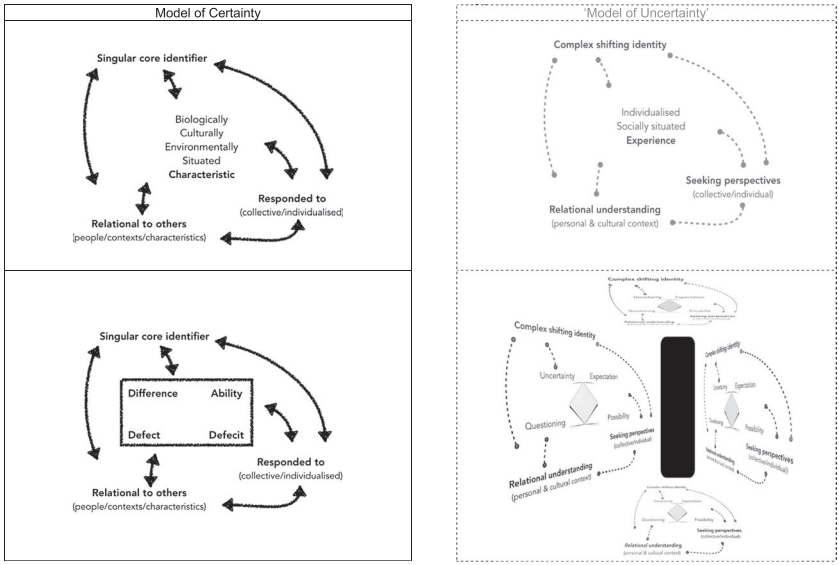
Figure 1: Models of certainty and uncertainty



of the skills, understandings and past histories of numerous others, and of bottom-up or emergent solutions.

The unreliability of human practice, an issue raised by Kauffman and Sosso and Gallagher, is also particularly important. One issue touched on above is the unreliability of the categories, diagnosis and assessment (Vislie, 2003; Bickman et al., 2012; Frances & Widiger, 2012; BPS – DCP, 2013; Rix, 2015). Another is that for an intervention that emerges from scientific method to be true to itself it cannot propose a hypothesis about an intervention and effectively prove its validity in isolation from the huge range of complexities that exist in moving the intervention into an endlessly variable everyday. Any intervention needs to be fully tested in real-world contexts (Holman et al., 2018). Its own measure of effectiveness, and therefore proof of truth, can only be satisfactorily proven when it is reliably producing its predicted outcomes within those everyday classroom contexts in a wide variety of cultures undertaken by everyday practitioners. The complexity of such an approach might seem beyond the means of many researchers who are not suitably networked, particularly since agreed evaluation processes at scale still need to be

Figure 2: Models of certainty and uncertainty, applied to those who struggle within our education system



developed (Stahmer et al., 2018) and the resources and costs are considerable (Horner et al., 2017). However, even for those who are well networked, such an approach can prove hard to achieve (for example, Taylor et al., 2017). At its most effective, only a very limited number of approaches can be tested in a manner that will be accepted as robust in the context of models of certainty.

In contrast, the practices associated with much of the inclusion literature cited above are very rarely in evidence on a large scale, and frequently what is done in the name of inclusion is individualistic and segregatory. As Hausstätter (2014) notes, 'there is a force trying to make the unfinished finished, by transforming it from suggested to designed'. The very openness and desire to challenge the status quo, advocated by much of the academic literature including my own, falls into the aspirational 'second world' of inclusion (Macbeath et al., 2006). Support for the idea of inclusion has long been evident among practitioners and policy makers; however, Macbeath et al. (2006) suggest that this aspirational worldview is undermined, in particular, by the culturally determined nature of teaching and the legacies of earlier times. It

is undermined too by the inherent conservatism of teachers faced with a class whom they primarily have to control, regardless of their awareness of alternative approaches; 'In reality it is the heart that more often rules the head' (Macbeath et al., 2006). The perceived reality of most practitioners and policy makers is that within a system seeking certainty, solutions emerging in a bottom-up, incomplete fashion have little traction or longevity and therefore lack systemic meaning. The 'second world' can call for change, but cannot prescribe what that change might be, beyond a way of thinking and giving examples or tools for reflection. It has to be allowed entry.

Trapped between ideals and philosophies

The function of a model is to help us see what is before us, in a simpler, more perspicuous and manageable way, with the greatest risk being oversimplification (Grim & Rescher, 2013). Creating such a compromised truth, where nuance is reduced by trying to create boundaries for reflection, is particularly troubling in the context of describing a way of thinking that seeks to break down such boundaries. However, as Grim and Rescher (2013) note, the proof is in the using. To be of value, a 'model of uncertainty' and a model of certainty should facilitate an understanding of the relationship between special and inclusive education.

As is apparent from the literature cited above, this article is suggesting that the 'model of uncertainty' is closely allied to critical pedagogies and a socio-cultural view of learning and much of the writing associated with inclusive education and twenty-first-century skills, while the model of certainty is closely allied to behaviourist and constructivist views of learning and the ideas and processes associated with special education and the 'traditional grammars' of schooling. This is not to suggest that there are not a range of different positions within these views and their associated practices, but it does enable us to see why extreme formulations of theoretical positions can be problematic (Maul et al., 2016), as well as the more general positions that people take up and may see as 'common sense'.

As discussed above, such general positions are evident in understandings of learning, bureaucratic responses to resourcing and governance, and our contradictory or competing goals of education. They demonstrate how a seemingly small difference can quickly lead to such fundamentally different approaches, and how they can emerge even if people speak about the same thing and feel they are seeking to achieve the same thing. We may seek fairness through choice, effectiveness, collaboration, personalisation, inclusion

and differentiation, but by approaching through the frameworks of certainty we reduce these interdependent issues to independent ones. Boundaries of manageability become barriers to achieving systemic goals.

The models as presented here do not represent the ethics of people's approaches, but they do represent recognisable and quite different ways of working. They highlight the inevitable separation of many within a system where the dominant discourse is focused on certainty, even if there are references to elements of doubt. They can facilitate discussion about why people may feel they are being pulled in contradictory directions by their own or systemic responses. For example, consider an exploration of how the 'intellectual disability' category governed the way in which a school, the teachers, the child and their peers understood that child and the expectations they had of him (Snipstad, 2018, 2019). A succinct summary would be that where the identity was approached with a model of certainty it acted to constrain practice, while when approached with a model of doubt the 'intellectual disability' category was simply a perspective that informed practice.

These models also help us think about our urge for change. Both models can lead to a recognition of change for change's sake. Discourses of change and programmes of change infuse organisations and institutions around the globe. We talk about this change as if it is something new or something profoundly different at our point in time, but change is simply the reality of being alive. It is about coping with entropy and uncertainty. People who complain about yet another change in their place of work, or talk of their weariness of change, may be people weary of uncertainty who yearn for the 'myth of stability' (Toulmin, 2001); they may want the simple life with patterns they can recall from the past; but they may also be simply frustrated by experiences of change which are systemic, that deny the reality of uncertainty and impose impractical certainty, ignoring their experience; they may understand that it is relatively futile.

Seeking a way

Models of certainty and uncertainty can only be true unto themselves. Certainty is founded on an idealised, boundaried premise which is compromised by social reality, whereas uncertainty is premised upon its own fallibility. The equivalent theoretical limitation of both models does not equate to equivalence of status in the education and support systems, however. Within our education systems we reward those who have answers; we build qualifications, assessments and curricula around boundaries of certainty, and then we

match our pedagogy to suit these. Doubt may be part of science, doubt may be part of postmodernism, but certainty is what school systems currently seek and are encouraged to seek. Consequently, they read reduction of doubt as certainty; this reduces their uncertainty as institutions.

Given this fundamental mismatch in influence, it might seem that Kauffman, Sosso and Gallagher are right that a bridge or unifying approach is not available. However, if we, as policy makers and practitioners, are serious about moving towards inclusion (and twenty-first-century skills) and moving away from the 'traditional grammars' of schooling, opportunities would seem to exist that could better respect much that has been written about inclusion and the model of uncertainty that underpins this work. Our aims for education could more fully accept that uncertainty is inevitable and that certainty is a boundaried experience; that we can only make careful choices (Gallagher, 2006) and will only ever achieve 'less than absolute' objectivity (Kauffman & Sasso, 2006b). We could seek a solution that is open to and respects both traditions.

In particular, we could develop nationally and internationally recognised assessments and curricula that are built upon a pedagogy of uncertainty. Pedagogy does not require certainty. Pedagogy (unless trapped by a notion that learning is a direct transmission of knowledge) is rooted in fallibility and risk, the openness and unpredictability of education (Biesta, 2010). It is relational. It is a social response to the time and space dependency of learning. If we begin with such a pedagogy, we could then ask how our assessments and curricula could follow where uncertainty may lead. We could redesign our assessment system, to move away from an over-reliance upon the right answer, categories and individualism toward an exploration and validation of people's capacity to consider ideas and resolve challenges interdependently in social contexts that are meaningful to those involved. We could reconceptualise our curricula as a platform for our social goals and prioritise any learning of subjects and key skills in this context. People have called for this kind of change before. The Norwood Report (1943) in England, for instance, took a step towards this when it included radical proposals that would replace external examinations with a system of certification based on school records for *all* schools alongside their internal examinations, which are 'conducted by the teachers at the school on syllabuses and papers framed by themselves'. There are plenty of examples of flexible approaches, in which people seek to work with uncertainty at scale: democratic schools such as Summerhill; or project-based systems such as Not School or Big Picture; or futures-thinking

initiatives such as Schome; or socio-cultural assessment approaches such as Point of Learning, which has played a key part in delivering continuing professional development to hundreds of thousands of teachers in Egypt.

Such an approach, perhaps ironically, would have to be resourced and recognised within the formal structures of our education system. This would create a space for the emergence of a valid and valued education based upon learning as a collective, social experience full of uncertainty, seeking cooperation in the face of the unknown. This would enable the space for alternative, inclusive practice to emerge, to satisfy the swathe of learners, practitioners, parents, policy makers and campaigners who would like to have such a space. However, many people would continue to seek certainty rather than embrace notions of uncertainty, and so would continue to work and think in ways that they believe appropriate and not in ways with which they do not fundamentally agree. These people would seek to maintain all the exams and traditional subjects, the special classes and special schools, using the old models of individualised assessment and their competitive ethos.

In this context, a platform for validated outcomes of education based on notions of uncertainty, resourced in the manner of the current model which seeks certainty, would seem to offer up three options.

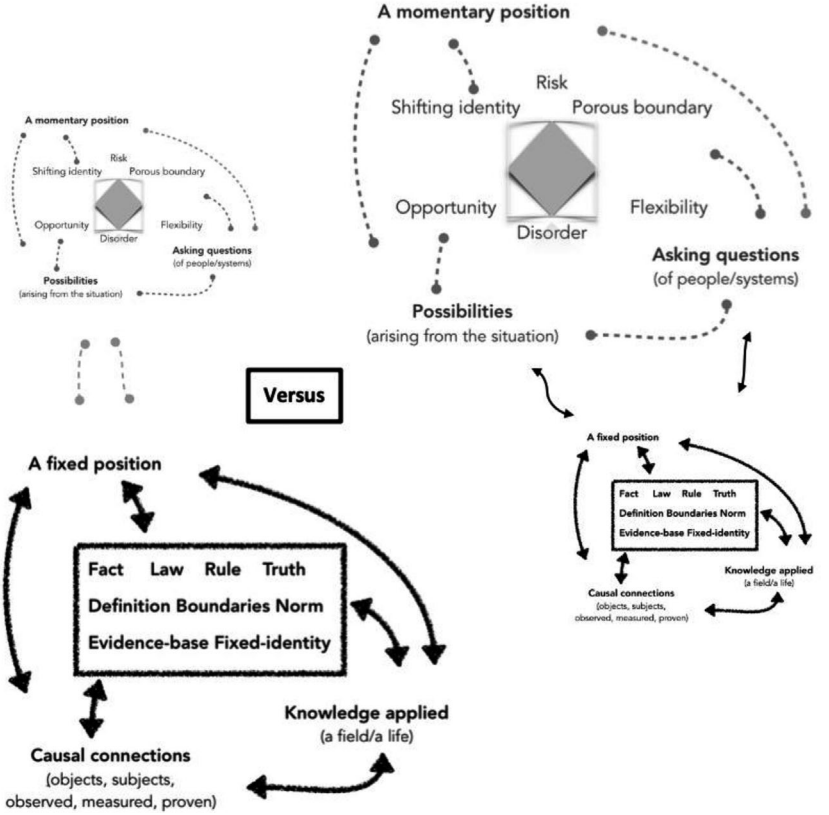
The first is a complete transformation of the current system, so that the pedagogy of uncertainty replaces the pedagogy of certainty. This would require a shift in practice across all aspects of the system, including a reconceptualisation of the form and function of special education and the subsequent use of additional time and place. This seems unlikely to happen. It is, for example, akin to what people have tried to achieve through the closure of special schools, through the development of comprehensive education systems, through adaptive education and through international documents such as the Salamanca Agreement or the Index for Inclusion.

The second option is the establishment of two systems, one still seeking certainty and the other embracing notions of uncertainty. This would require us to embrace such a two-stream approach, placing equal systemic value on the outputs of both systems, so that it is not a hierarchical two-tier option between 'traditional' and 'progressive'. This would seem a possible solution, both as a model for funding and for curricula; however, it risks replicating the dualities of mainstream/special and academic/vocational. To counter this risk, and possible bias in relation to the benefits of the two approaches, there

would need to be buy-in from the users of the current output markers (for example, employers and universities) to ensure equivalent access and to resist concomitant two-tier earnings.

The third option is a shift in emphasis within the current system. This would require a rebalancing between structures and practices based upon certainty, so rather than the 'model of uncertainty' meeting the inherent resistance of a fixed position within the model of certainty, the model of certainty would serve as a powerful influence in the asking of questions and seeking perspectives within the 'model of uncertainty' (see Figure 3). Such a shift would allow the model of certainty to be a key, prioritised perspective within the

Figure 3: Certainty and resistance to uncertainty vs. uncertainty and the influence of certainty



dominant 'model of uncertainty'. The model of certainty would be acknowledged as valued and reliable, as opposed to the current situation which marginalises and rarely benefits from the 'model of uncertainty'. This could not be an overnight transformation, but a movement towards a new way of working. It would require a recognition of the problem and a recognition of the possibility of the solution.

Conclusion

When faced with such competing views as those held by Kauffman, Sosso and Gallagher, it is easy to accept that 'the two camps will continue to talk past each rather than to each other' (Allan, 2008). In trying to bring the camps together, it is tempting to adopt a critical theorist position and argue for epistemic relativism and ontological realism. However, even though we have multiple theoretical starting points, within education – and particularly special education – the dominant paradigms recognise an external reality which serves as the dominant version of truth. Whether this dominant truth is actually an approximation to truth or not and may be ontologically challenged does not change the social reality of its dominance. However, it also does not change the social reality that educators are socially situated. It is only through social interaction that they could be influenced and can influence others. Social interaction is therefore the only means by which we can bridge the divide; and social interaction may seek certainty but will always be underpinned by uncertainty and doubt.

If we do not wish to overcome our educational systems' resistance to inclusion (and its determination to redefine it in ways that leave traditional 'grammars' of schooling untroubled), policy makers can continue with the Promethean task of forcing inclusion into the traditional education system. However, if we are genuine in a desire to achieve the goals of inclusion, we can either start again, set up a new system that runs alongside the old or refocus the whole so that an inclusive approach creates the space for the traditional. The models of certainty and uncertainty introduced in this article can help us envisage these challenges and consider our future.

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