

**Scoping Review of the Literature on Processes of Change for
Inclusive Practice and the Evidence for Success in Enabling
Achievement**

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Introduction

This scoping review of the recent research literature on processes for change in developing inclusive education and the evidence for success in enabling achievement was commissioned by the Department for Education (DfE) as part of the two-year DfE-funded *Dyslexia/ Specific Learning Difficulties (SpLD) Support Project* which has run between 2016 and 2018, led and coordinated by the British Dyslexia Association (BDA).

Whilst the focus of the project has been students with dyslexia and other SpLDs, Clough and Corbett (2000) have characterised an educational approach which is focussed only upon the 'remediation' of individual within-person deficits as the traditional 'psycho-medical' theory of inclusive education: a medical model of disability.

The contrast to this approach informing more recent thinking about inclusive education has been informed by is what is called the 'social model of disability' (Oliver, 1990). In this model the focus is turned away from individual special education needs and disabilities (SEND) towards consideration of the systemic barriers to participation and achievement faced by disabled people, where cultures, policies and practices at school, local and national levels are failing to be fully inclusive.

In fact, organisations such as the Centre for Studies on Inclusive Education, The Alliance for Inclusive Education, the charity Achievement for All and policy documents such as 'The Index for Inclusion' (Booth and Ainscow, 1999, 2002, 2011) would suggest models of inclusive education which consider a wider agenda than just students with SEND and incorporate the whole school as an inclusive community of practice. Evidence that this wider approach is needed is suggested by data from a recent study by Griffiths and Dubsy (2012) which characterised the challenges of trying to include a small minority of students with SEND in schools where the philosophy and leadership practices were not generally inclusive, as the equivalent of 'gardening in a gale'. Furthermore, Messiou (2012) has suggested that it is those children who have unidentified needs that may be most vulnerable to marginalisation in schools.

So, this scoping literature review considers the inclusion of students with dyslexia and other SpLDs within the broader and deeper processes in developing inclusive cultures, policies and practices in education at school, local and national levels. Its aim is to build upon previous literature reviews in the field, to bring the knowledge base up to date and to provide examples of effective practice for national and local level policy makers in education, for those who train teachers, and for leadership teams and governing bodies of schools.

This review can be formulated in the research question, '*What are the processes for change in inclusive educational practice and the evidence for success in enabling achievement?*'

Methodology: A Scoping Literature Review

Elrich et al (2002) define the purpose of a scoping literature review as follows:

'The purpose of a scoping exercise is both to map a wide range of literature, and to envisage where gaps and innovative approaches may lie' (p 28).

Arksey and O'Malley (2005) characterise the aim of scoping reviews as being

'... to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available'.

So, the use of a scoping methodology for the purposes of the present study is to both undertake a rapid mapping of the field of research on the processes of change in developing inclusive education, to identify gaps in current knowledge, and to identify innovative approaches.

In order to do that, it was important to settle upon an acceptable definition of the term 'inclusive education'. According to UNESCO (2005), inclusive education can be defined as follows:

'Inclusion is seen as **a process** of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children.' (p. 14)

This basic definition offered the research team at least a starting point for further discussions about selection criteria for studies. However, the authors are well aware that differing definitions of 'inclusive education' have informed a variety of individual studies and literature reviews in the field and this conceptual issue is revisited later in this review.

Method

Initial discussions within the research team about the inclusion criteria for selecting research sources were informed by team members' awareness of a key previous literature review in 2002, by Dyson, Howes and Roberts, so that it was initially decided that the scoping review would cover:

- Sources since 2002 *
- Peer-reviewed journal articles and also the relevant 'grey literature' (e.g. PhD theses, Masters' dissertations, etc.)
- Anglophone, Scandinavian and other countries in the 'global north' with comparably developed education systems.

(*this date was later revised and further selection criteria added. See the next section.)

Data sources included:

- Electronic data bases: The British Education Index; ERIC; the main catalogue of Manchester Metropolitan University Library; the EPPI Centre, University College London; PsycINFO; and British Library EThOS.
- Hand-searches of the archived issues on the websites of the following key journals: *The International Journal of Inclusive Education*; *The European Journal of Special Needs Education*; *The Journal of Educational Change*; *The Journal of Special Education*; *Exceptional Children*; *The Journal of Research in Special Educational Needs*; *the British Journal of Special Education*; and *Support for Learning*.

The following search terms and strategies were used: (Inclusive Education OR Inclusive Schools OR Mainstreaming) AND (Development OR Effectiveness OR Innovation OR Change) to select sources that might help to answer our research question.

Analysis of Previous Reviews of Literature

It was decided to begin with searches of previous literature reviews, identifying 33 that fitted our initial selection criteria and which fell under the broad definition of inclusive education given by UNESCO (2005); on second review, these were reduced to 11 studies.

However, of these 11 literature reviews, the one by Göransson and Nilholm (2014) stands out in that, before embarking upon their own literature review of studies from 2004-2012, they raise some major points of critique of literature reviews previous to theirs.

The authors' first point is that these reviews are based upon a range conceptions of what is meant by the term 'inclusive education'. They identify four broadly characterised categories of conception:

- A. Placement definition – inclusion as a placement of pupils with disabilities / in need of special support in general education classrooms.
- B. Specified individualised definition – inclusion as meeting the social / academic needs of pupils with disabilities/ pupils in need of special support.
- C. General individualised definition – inclusion as meeting the social / academic needs of *all* pupils.
- D. Community definition – inclusion as a creation of communities with specific characteristics (which could vary between proposals). (p. 268)

Göransson and Nilholm (2014) see these categories as nested hierarchically within each other, like Russian dolls (our term), where category D is the overarching one, encompassing (from the inside outwards) categories A, B and C. Although those authors acknowledge some scope for variation within each category, they see this nested model as offering a stricter set of analytical criteria when reviewing studies of inclusive education.

Göransson and Nilholm's second key point of critique is that, in order to offer methodologically sound evidence for how inclusive change can be developed in schools, four key criteria need to be met:

- 1. a research design covering a process over time;
- 2. indicators of inclusion encompassing both social and academic effects;
- 3. the indicators of inclusion studies for all or a representative sample of pupils and with a separate report of data from children with disabilities / in need of extra support; and
- 4. data showing that the system studied (schools or classrooms) became more inclusive as a consequence. (p. 272)

They consider it vital that data should involve comparisons of a baseline 'with at least one later point in time'. For measuring academic effects they suggest that data might include grades, tests or other academic assessment data (e.g. portfolios). For measures of social aspects of inclusion, data sources might include interview data with staff and pupils, mapping sociograms and / or through classroom and / or other observational data. These echo the three key principles of evidence of inclusive change identified by Ainscow (2005): 'presence, participation and achievement' (p.9).

Göransson and Nilholm (2014) felt that studies previous to theirs had largely not included the required evidence under these four criteria. Using these four criteria, Göransson and Nilholm conducted a review of studies between 2004 and 2012. From 105 studies potentially meeting these criteria, further reading and discussion led to the selection of 25 and then a further whittling down to 20 studies. Of these 20 selected studies, only two, Mastropieri et al (2006) and McDuffie, Mastropieri and Scruggs (2009) showed positive evidence of change under all four criteria.

Using Göransson and Nilholm's (2014) four selection criteria, and building upon their work, we reviewed the literature on the processes of change for inclusive practice for the period 2013-2018.

Identification of studies

From an initial possible 198 studies falling within the qualifying timeframe, 130 studies of potential interest were initially screened from which we chose 94 as potentially meeting our criteria. From reading and analysing the abstracts this was further reduced to 33, after which we scrutinised the articles' contents and, having eliminated those that were not empirical research, further reduced these down to 10 studies for more in-depth analysis. It is these studies that are reported and discussed in the review below. The 10 selected represent some larger scale studies, using more traditional quantitative experimental and quasi-experimental approaches, as well as smaller scale projects, including single case studies. We would agree with Yin (2013) that, whilst case studies cannot offer statistical generalisation, the rich, thick descriptions that their data offer can provide illumination of the phenomena under scrutiny to others working in the same field, what Yin describes as 'analytical generalization' [*sic*].

The 10 studies selected do not include the impressive larger scale studies carried out by the Achievement for All charity at national level in a number of different countries (e.g. Achievement for All, 2016), as, though they take the mixed methods, longitudinal approach recommended by Göransson and Nilham (2014), they only focus directly upon children at risk of underachievement, and though they claim to have had indirect effect upon the rest of the school communities involved in their interventions, these latter data are not reported.

These 10 studies are discussed under two areas of focus: 1. Leadership and Management and 2. Teaching, Learning and Curricular approaches, although we are very aware of the overlaps between these categories in the data reported. They are summarised in Table 1, below.

Table 1: Articles included and results of the in-depth analysis

Author(s) / Country	Level / Cohort	1) Over time?	2) Social and academic progress reported?	3) Representative sample of pupils?	4) Increased inclusiveness of setting?
Farais et al (2017) (Portugal)	One school	Yes	Social: Yes Academic : Yes	Yes: All pupils in one class	Yes
Hoppey & McLeskey (USA)	One School	Yes	Social: Indirect report. Academic: Yes	Yes: All pupils in the school	Indirect report
Intxausti et al (2017) (Basque Country)	National (32 schools)	No; multilevel contextual	Social: Yes Academic: Yes	Yes; All pupils in the schools	Indirect report
Katz (2013) (Canada)*	Regional (10 schools)	Yes	Social: Yes Academic: Pupil 'Engagement' used as proxy measure	Yes: All pupils in the schools	Yes, but not significant
Katz (2015) (Canada)*	Regional (10 Schools)	Yes	Social: Yes Academic: Yes. Qualitative	Yes: All pupils in the schools	Yes, but not significant
Katz and Sokay (2016) *(Canada) *from same study	Regional (10 Schools)	Yes	Social: Yes Academic: Pupil 'Engagement' used as proxy measure	Yes: All pupils in the schools	Yes
McLeskey et al. (USA)	One School	No; multilevel contextual	Social: Yes Academic: Yes	Yes: All pupils in the school	Indirect report
Persson (2013) (Sweden)	Local (all schools in one district n= ?)	Yes, but retrospective baseline data	Social: Yes Academic: Yes	Yes: All pupils in all schools	Yes
Tjernberg & Heimdahl Matton (2014) (Sweden)	One school	Yes	Social: Yes Academic: Yes. Qualitative	Yes: All pupils in the school	Yes
Wrench et al. (2013) Australia	Local (2 schools: transition between junior and high school)	Yes	Social: Yes Academic: Yes. Limited qualitative and indirect report	Yes: All pupils in the class	Yes

Results and Discussion: Synthesis of findings

1. Leadership and Management

Four of the studies selected had as their focus whole-school or regionally-organised projects where there was a clear focus upon the role of leadership teams in schools. The scales of the four studies vary: Hoppey & McLeskey (2013) and McLeskey et al (2014) are single school case studies from the USA; Persson (2013) covers schools in a single district in Sweden; whilst Intxausti et al (2017) covers 32 schools across the whole of the Autonomous Region of the Basque country.

This last study offers a clear philosophical position, which the authors term, ‘the incipient field known as *effective inclusive schools*’ (p.16) and go on to locate McLeskey’s work (cited above) squarely within this field. Whilst Persson (2013) does not explicitly cite this approach, she explains that the schools in the district selected for her study were chosen on the basis of their being not only inclusive but also having moved from bottom to top ranking in the national league tables for their results and which had done so ‘apparently *through* inclusive practices’ (p.1205, our italics).

Emerging key themes

a) Developing a shared vision

All four studies noted the importance of developing a shared vision of an inclusive school that would guide their cultures, policies and practice. One respondent in McLeskey et al’s (2014) study referred to it as a common stated belief in ‘excellence and equity’, whilst Persson (2013) summarises the staff’s embracing of an inclusive education as a clear reflection of Douglas’ (1986) concept of a collective ‘*thought style*’. Intxausti et al (2017) note that their selected schools were characterised by their respondents’ understanding of ‘diversity’ as being universal, not just concerning special educational needs. This, they note, has been, in turn, driven by the Basque government’s education policy to promote inclusion through their ‘Strategic Plan for Attention to Diversity within the framework of the inclusive school’ (Basque Government, 2012).

Another factor noted in two of the studies (Hoppey and McLeskey, 2013; McLeskey et al, 2014) was the use of distributed leadership opportunities for staff within the projects to develop a more inclusive school. This was felt to improve feelings of involvement through responsibility and thus to promote ‘buy-in’ from staff.

b) Support for staff

In all four studies selected there was a great emphasis put on staff support and development. The principal in Hoppey and McLeskeys’ (2013) case study school described it as ‘*lubricating the human machinery*’. In that study, and in McLeskey et al (2014), access to high quality and regular professional development opportunities for teaching staff was considered essential in developing their confidence and expertise as inclusive practitioners. In Persson (2013), staff noted the importance of access to a key colleague who could act as their mentor, and whilst there was less emphasis on this element in Intxausti et al’s (2017) study, staff did note the importance of a fairly distributed workload and of ample time for lesson-planning. Staff in this study did not, however, say they could access support from external advisors.

c) Reorganising teaching and learning

Three of the studies (Hoppey and Mcleskey (2013), Persson (2013) and McLeskey et al (2014), describe a major element in developing more inclusive practice as well as higher student attainment as being an almost complete move away from segregated teaching towards mixed ability classes. This move meant that special needs teachers were not tied up with teaching small withdrawal groups and so they could be involved in the mainstream classroom, teaching alongside their general education colleagues. The schools in Intxausti et al's (2017) study had also moved a great deal in this direction and were organising extra support lessons, where possible, out of normal school hours. However, the Basque Country being a bilingual region meant that the teaching of the core subjects of Basque and Spanish remain segregated by skill levels between native speakers, advanced learners and those new to each language.

Respondents in all of the studies noted that the move to co-teaching had not been without its challenges. The Hoppey and McLeskey (2013) study noted that there were the initial adjustments to be made by staff more used to solo planning and teaching than planning and teaching in a co-teaching model. Staff and parents in one of Persson's (2013) study schools had expressed doubts about the feasibility of teaching all children in mainstream classes. The head teacher, therefore, organised a series of seminars, where the relevant supporting research data was shared with them to reassure them. There has also been an issue with adequate joint planning time, which the school leadership addressed through consultation with staff. On a more positive note, staff in all the studies reported improvements in staff differentiation skills (Persson, 2013) and innovative uses of flexible groupings of pupils in lessons (Persson, 2013; Intxausti et al, 2017; McLeskey et al, 2014.)

d) Use of data

Respondents in the Hoppey and McLeskey (2013) and Mcleskey et al (2014) studies were very explicit about the importance of data 'to inform all decisions' and 'to define goals and standards'. Schools in Persson's (2013) study had used national and municipal attainment data in Swedish, English and Mathematics to drive forward and to monitor the effectiveness of their inclusive school improvement initiatives. Similar larger scale data sets were used in the Intxausti et al (2017) study, though there was a weakness noted that not all subjects were analysed and published every year by the regional government. The authors also noted a need to develop more inclusive assessment methods in the future.

e) Social dimensions

The data from the four studies on students' social progress and the data suggesting that there has been a general sense of improved inclusiveness in the four studies schools are rather patchy and inconsistent. In all the schools in the Basque study (Intxausti et al, 2017) regional money is available for developing projects to raise inclusiveness and equity for all students. Ainscow et al (2012) see the notion of equity as lying at the heart of developing effective and inclusive practice in schools. So grants may be, for example, used for cultural enrichment programmes, but the study notes considerable variation in uptake of these. However, a majority of the study's schools did use interview and sociogram data to ensure a proper heterogeneity in the make-up of their classes and that these means were used for ongoing monitoring and adjustment.

Persson's (2013) study used rather more informal qualitative data to assess social progress of pupils and general moves towards inclusiveness. Respondents in her study felt strongly that the move to

single mainstream classrooms for all was making a positive difference in the social dimension. Respondents felt that all their students were getting more used to social diversity through being in mixed classes, and one respondent noted visible improvements in self-esteem in children previously singled out as have special needs and thus segregated for lessons. Respondents also noted a reduction in disaffection amongst some students and an increased desire to succeed where they are sharing classrooms with children with high aspirations.

The other two studies (Hoppey and McLeskey, 2013; McLeskey et al, 2014) were much less systematic in reporting the social dimensions of inclusion and this might be considered a weakness in these studies. Rather vague anecdotal comments about all staff taking care of all pupils all through the day are cited, and Hoppey and McLeskey (2013) alluded to the school building's closer relation with the local community, but the links back to the children's social development remain unclear.

f) Leadership and Management studies: Research project timeframes

One of Göransson and Nilholm's (2014) four criteria for quality in research on developing inclusive practice was that the research data should be gathered over time, starting with some baseline measures. Here the four selected studies provide a rather mixed picture. Two out of the four studies (McLeskey et al, 2014; Intxausti et al (2017) provide only a snapshot of multilevel and contextual quantitative data (i.e. school performance levels compared to other schools when contextual factors are accounted for) so improvement over time can only be inferred. Hoppey and McLeskey's (2013) study uses that same multilevel contextual data snapshot, but the project itself does follow the school over the course of an academic year, and a series of interviews with the principal over that year does provide some unfolding phenomenological qualitative data. The Persson (2013) study takes as its baseline data the district league table attainment position in the national league table at two points: one in 2007, then again in 2010. These are retrospective data, as are those from the documentation kept since 2007 by the schools. So, there is a longitudinal element to these. The rest of the study's data are drawn from interviews (which do offer some historical reflection) and from classroom observations, which are essentially snapshots.

2. Teaching, Learning and Curricular Approaches

Six of the selected studies are mainly orientated around the role of improved teaching and learning and curricular approaches. These studies (like those in the Leadership and Management section) also vary a great deal in scale, from the wide-ranging review of recent literature on Universal Design for Learning (Capp, 2016), through studies of clusters of schools (Katz, 2013; 2015), to single case studies (Wrench et al, 2013; Tjernberg and Heimdahl Matton, 2014; Farais et al, 2017). Once again, the studies have used quantitative or qualitative approaches or a mixed methods approach.

Emerging key themes

a) Academic effects: Universal Design for Learning

Four of the studies (Katz, 2013; Katz, 2015; Katz and Sokal, 2016; Capp, 2016) report on interventions based upon the use of Universal Design for Learning (UDL). UDL has been developed in the USA as a vehicle for providing curricular and teaching activities that meet the needs of the

diversity of learners (CAST, 2012). It is based upon three key principles which facilitate student choice in the learning process:

- Providing for multiple means of representation of what is to be learned;
- Providing multiple means for students to engage with the learning to be done, to foster engagement;
- Providing multiple means for students to express their knowledge, skills and understanding. (Rose and Meyer, 2002)

This approach has traditionally involved use of a lot of technology to facilitate accessibility; however, this is not essential to the system (Hall et al, 2012). It can be used in teaching and learning in any subject area and with any age phase and academic level.

Capp (2016) undertook a review of the literature between 2013-16 on the use of UDL as a vehicle for inclusive teaching. As well as covering the studies by Katz (2013; 2015), which are covered separately in the current review, Capp also reported 9 quantitative studies, 2 qualitative studies, and 7 mixed method studies involving UDL, totalling 18 studies. Of these, however, only 7 (Katz, 2013; 2015; Katz and Sokal, 2016; Marino et al, 2013; Hancock et al, 2013; Kennedy et al, 2013; and King-Sears et al, 2015) reported on use of UDL in mixed ability classrooms of school-aged children. The others either reported on classes of severely impaired learners or on higher education settings (which are outside the remit of the current review).

Kennedy et al (2013) and King-Sears et al (2015) both reported quantitative studies in the USA, respectively from Chemistry and History classes. Both studies used a quasi-experimental approach, with treatment and comparison groups. Kennedy's 141 mixed ability high school history students showed strong effect sizes (ES) in all but one score (0.73-0.97). In a similar vein, King-Sears et al's (2015) study reported medium to large ES (0.43-0.97) in four co-taught high school Chemistry classes.

Marino et al's (2013) mixed methods study of using UDL in four middle schools, with 398 students and 150 of their teachers in Biology, produced rather more mixed ES in student learning (0.22-0.63), depending upon the Biology topic being studied. However, as the authors point out, with so many teachers involved in the project there may well have been some variation in skill levels in adopting this new pedagogical model. The qualitative data revealed high levels of engagement from the students and appreciation of the choices available to them. Although the Hitchcock et al (2016) study of 49 students using UDL to develop writing skills in the middle school Science classroom lacked a control group, the students scored significantly higher on key elements of the Woodcock Johnson III writing test (Writing Fluency and Writing Samples). The qualitative data also reflect some social gains (see sub-section C below).

Katz's (2013; 2015) and Katz and Sokal's (2016) studies also used UDL as the vehicle for developing inclusive approaches to teaching, though she nested the UDL classroom pedagogy with a broader 'Three Block Model' (see the Appendix to the current review). In this multidimensional educational approach, Block 1 is *Social and Emotional Learning* and utilizes the 'Respecting Diversity' (RD) programme that the author had previously designed and tested (see subsection C below); Block 2 is *Inclusive Instructional Practice*, which utilises the key UDL pedagogy alongside other inclusion-friendly techniques, such as collaborative learning and assessment for learning; Block 3 is *Systems and Structures*, which is concerned with the leadership and management framework for the project and, as the detail in the Appendix to the current review shows, interestingly, features many of the leadership and management elements identified as inclusive in Section 1 of the Results, above.

Katz's 2013 and 2015 and Katz and Sokal's (2016) studies, involving 631 students from grades 1-12 in 10 schools in the province of Manitoba, Canada, in multiple curriculum areas, using a mixed methods approach, in a quasi-experimental intervention, with control group results also reported, showed medium academic ES (0.55). However, Katz used 'engagement' as a proxy measure for academic progress. Not reporting actual academic achievement outcomes was identified as a shortcoming by the author and she would aim to include these data in future studies. Katz and Sokal's (2016) study elicited widespread student reports of increased understanding of themselves as learners, better academic self-concept, and improved engagement with school. The study also elicited data about social and emotional gains that are reported in subsection C of this review, below.

Whilst the results reported in 2013 and 2016 studies focussed upon the students, the 2015 study focussed upon the 58 teachers involved in the intervention groups. They reported general very positively on their perceptions of outcomes for students, including social gains (see subsection C below). They also reported positively on improvements in their own practice and sense of self-efficacy in teaching mixed ability groups. However, they did note some of the challenges in using the UDL pedagogical approach, including the need for collaborative planning time, accessing a wide range of teaching resources in a rural area, getting parental 'buy-in' to an unfamiliar teaching and learning approach, as well as having to match UDL's flexible approach to assessment to the larger framework of much more rigid government models of assessment.

b) Academic Effects: other teaching and learning studies

The other three selected studies (Wrench et al, 2013; Tjernberg et al, 2014; and Farais et al, 2017) did not employ a UDL approach, though some features of Katz's (2013; 2105) Three Block Model can be recognised in the design and results of these research reports. What they all have in common, in addition to reporting some academic effects, is a focus on the social and emotional aspects of learning.

In a similar way to Katz's (2013; 2015) Block 1, the focus of Wrench et al's (2013) study was how the development of personal well-being could influence student academic aspiration and engagement. In their study of one mixed ability and ethnically diverse class in a low socio-economic status suburb of Adelaide, South Australia, the aim was to make curricular and pedagogical adjustments in order to focus on well-being using the regional 'Learner Well-Being Framework' for schools. The study was partly characterised by student-led activities, including student presentations and action research projects. The class also made visits to a local university to undertake trainee teacher-led activities and to experience the feel of a university environment. The design study was based upon lessons learned from earlier failed attempts in other settings to raise engagement and aspiration in older students, suggesting that these initiatives needed to be developed with children at a younger age. Results, reported qualitatively, reflect improved student sense of agency, engagement and enhanced confidence to take risks in learning. There were also interpersonal socially and emotionally positive outcomes, which are reported in subsection C, below.

Tjernberg et al (2014) report a seven-year study of a primary school in Sweden. Similar to the Wrench et al (2013) study, the teachers used student-led presentations to develop their skills in oracy in developing reading and writing skills, which was based upon a firm belief that language underpins learning across the whole curriculum. They also used a mix of pedagogical approaches to meet the diverse needs of their learners in a reflective practitioner cycle. In this mix was a lot of use of cooperative group work (echoing Katz's 2013; 2015 Block 2 methods). Another firm belief was that students with literacy difficulties would perform better in mixed ability groups, rather than the 'ghetto' of a bottom ability class. The emphasis on oracy also gave students with difficulties in

reading and writing more opportunities to shine. Results of the study report qualitative gains in students' reading and writing abilities, though quantitative test scores and grades are not reported and the possibility of a simple maturity effect over such a long study needs to be considered. However, social and emotional gains were also reported (see subsection C, below).

The emphasis on student led activities and cooperative learning also feature in Farais et al's (2017) interesting report of a project to develop more democratic, inclusive and participatory Sports Education in a high school in Portugal. The project tracked changes to teaching and learning arrangements over the course of an academic year and involved, as a key plank of the intervention, the training of 36 12-14 year old students as sports coaching peer mentors. Teachers in the project also changed the emphasis away from a heavy focus upon exclusive and excluding high stakes competitive sports tournaments towards cooperative training sessions to develop better skills for all and small sided and longer paired team activities and games. The results of the study reflect increased skills levels in the students, higher levels of engagement and participation in sports education and, as in Wrench et al's (2013) study, more confidence to take risks in learning. Social dimensions and gains to the inclusive climate of the school were also reported (see subsection C, below).

c) Social effects and Improved Inclusivity

Considering first the UDL-based studies, it needs to be noted that the Kennedy et al (2013) and King-Sears et al (2015) studies make no report upon affective factors, nor upon any change in school climate towards more inclusiveness, which is why these studies are only reported in passing in the context of Capp's (2016) wider literature review, which did report on these issues, but largely in studies dealing with higher education and professional training settings, which, as mentioned before, were outside the remit of the current review.

In the Capp (2016) review, the Marino et al (2013)'s study did report students as experiencing more regular and positive interactions with their peers as a result of being involved in UDL lessons. In the same review, teachers in the Hitchcock et al (2016) study reported that work done in writing teams improved student cooperation and feelings of belonging to that team. Also, those students with English as an Additional Language (EAL) involved in the project reported better oral abilities in English and therefore improved communication with their peers and teachers.

Students in Katz and Sokal's (2016) study using the Three Block model of UDL, reported significant improvements in their social interactions and class climate (ES = 0.497), as well as offering qualitative reports of a better sense of well-being and general enjoyment of life at school. It is interesting to note that in her 2013 study, Katz did not employ the Block 1 'Respecting Diversity' programme to see if this would have an effect upon affective outcomes and it did depress reported feelings of belonging and class climate to levels below significance (ES = 0.05).

Moving away from the UDL-based studies, teachers in Wrench et al's (2013) study reported the project as having fostered 'a classroom environment characteristic of positive relationships and an emotionally and socially connected community' (p. 939). In a similar way, Tjernberg et al's (2014) research described the teachers as having created 'a permissive and secure climate in which there was a natural acceptance of differences... a good social climate ... developed in a collaborative spirit' (p.252). In the same way, Farais et al (2017) reported qualitative data of students' feelings of improved self-confidence, sense of belonging, and of mutual respect, including between students of differing sporting abilities.

Summary

The studies selected for the current review have begun to give some ideas of a number of key principles that are important in developing inclusive practice. In terms of leadership and management, schools seem to benefit from a leadership team committed to a shared vision of inclusion to which they get staff, parents and pupils to buy in. In getting staff buy in (e.g. McLeskey et al, 2014), the use of training, ongoing support and distributed leadership models seems key (e.g. Hoppey and McLeskey, 2013). In developing a more inclusive pedagogical system, reorganisation is needed, where, instead of segregated classes, mixed-ability classes are co-taught by general educators and special educators, sharing expertise and using flexible pupil groupings. For this to work well, adequate joint planning time needs to be built into teachers' workloads (e.g. Katz, 2013; 2015). Schools also need access to rich data that is used to inform decision-making, including both performance data (e.g. Hoppey and McLeskey, 2013; Intxausti et al 2017) and research data (Persson, 2013; Wrench et al, 2013).

In terms of teaching and learning, apart from the organisational issues noted above, pedagogy needs to respond to the diversity of learners in the classroom, using multiple means of presentation of learning topics, multiple means of engaging with learning, and multiple means of showing knowledge skills and understanding, and the UDL-based studies reported (e.g Katz, 2013; 2015; Katz and Sokay, 2015) seem to offer great possibilities here. However, pedagogical initiatives need to heed the social and emotional dimension of learning, and these are explored illuminatingly in Wrench et al (2013), Tjernberg et al (2013) and Farais et al (2017). We would argue that all these elements need to be considered in developing inclusive practice in schools.

Conclusions

Göransson and Nilholm's (2014) fourfold criteria for quality in the design and reporting of research into improving inclusivity in education demanded that studies should, firstly, have a design that covered a process over time; secondly, should show academic and social gains; thirdly, should involve a representative sample of pupils; and, fourthly, should give data showing how the setting had become more inclusive over time. These criteria have set the bar high and it is probably fair to say that the studies selected for the current review all represent at least partial (though perhaps not full) evidence in all of these categories. However, lessons can be drawn from each of the studies where each may have fallen short of fully meeting the criteria. Of all the studies, we would argue that, whilst no single report completely covers all the bases, taken together, the series of reports by Katz (2013; 2015) and Katz and Sokal (2016) offer the nearest to a model of what a comprehensive research design fulfilling Göransson and Nilholm's (2014) criteria might look like.

There are many and increasing pressures upon schools operating within a neoliberal political and economic climate of performativity (Tomlinson, 2017) in which there seem to be tensions between schools narrowly recording grade attainment standards data, on the one hand, and inclusivity on the other. Ainscow, Booth and Dyson (2006) acknowledge these tensions but suggest that these competing policy pressures could be negotiated by showing how concepts of what represents achievement could be broadened. Future studies using these powerful data in developing equity and achievement for *all* students can be shared with policy-makers and these could be used to help build more schools that are both effective and inclusive, and indeed are effective because they are inclusive.

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Appendix A: The Three-Block Model of Universal Design for Learning (Katz 2013)

<p style="text-align: center;"><u>System & Structures</u></p> <ul style="list-style-type: none">• Inclusive Policy – No “Except!”• Hiring of administrators with expertise/vision• Distributed Leadership• Professional Development• Staffing to support collaborative practice<ul style="list-style-type: none">○ Team planning time, scheduling in cohorts/teams○ Resource / EA allocations to classrooms / cohorts, not individual children○ Co-planning, Co-teaching, co-assessing○ Consistent, authentic assessment across classes – rubrics• Budgeting<ul style="list-style-type: none">○ Changed from segregated practices/funding allocations○ Assistive technology○ Multi-leveled resources	<p style="text-align: center;"><u>Inclusive Instructional Practice</u></p> <ul style="list-style-type: none">• Integrated Curriculum• Student Choice• Flexible Groupings / Co-operative Learning• Differentiated Instruction• Differentiated Assessment• Assessment for learning / Class Profiles / Strategic Teaching• Technology• Discipline Based Inquiry• Meta-Cognition – Assessment as learning• Understanding by Design / Essential Understandings• Social & Academic Inclusion of Students with Exceptionalities
<p style="text-align: center;"><u>Social and Emotional Learning – Developing Compassionate Learning Communities</u></p> <ul style="list-style-type: none">• Respecting Diversity (RD) Program• Spirit Buddies• Developing Self-Concept<ul style="list-style-type: none">○ Awareness of and pride in strengths and challenges○ <i>Understanding, Belonging, Doing</i>○ Goal setting and planning – building a vision for the future, self-efficacy, hope○ Leadership skills / opportunities• Valuing Diversity<ul style="list-style-type: none">○ Awareness of the strengths and challenges of others○ Valuing of diverse contributions to community○ Sense of collective responsibility for well-being, achievement of all○ Empathy, Perspective taking, Compassion• Democratic Classroom Management<ul style="list-style-type: none">○ Collective problem solving, recognition of rights and responsibilities○ Promotion of Independent learning, student choice & empowerment, leadership○ Increase in student engagement, ownership	