



The Hundred Review:

What research tells us about effective pedagogic practice and children's outcomes in the Reception year

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Authors:

Chris Pascal, Tony Bertram, Aline Cole-Albäck

**Centre for Research in Early Childhood,
St Thomas Children's Centre and Nursery School,
Bell Barn Road,
Attwood Green,
Birmingham,
B15 2AF**

CONTENTS

1. Scope of Literature Review	3
2. Introduction	4
3. Review Methodology	5
4. Evidence on Concepts of <i>School Readiness and Schoolification</i>	6
4.1 School Readiness	
4.2 Schoolification	
4.3 Re-conceptualising Readiness	
5. Evidence on Current Reception Year Practice	10
5.1 Assessment and Learning Goals	
5.2 Narrowing the Gap	
5.3 Datafication	
6. Evidence on Appropriate Pedagogic Approaches and Child Outcomes for Reception Age Children from Large Scale Longitudinal Studies	13
6.1 Effective Provision of Preschool Education (EPPE) Project and Effective Pre-school, Primary and Secondary Education (EPPSE) Project	
6.2 Study of Early Education and Development (SEED)	
7. Evidence on What Constitutes a Developmentally Sensitive Pedagogic Approach in Reception Classrooms	18
7.1 Play-based Pedagogies	
7.2 Child Initiated or Teacher Led Play	
7.3 Relational or Outcome Based Pedagogies	
7.4 Transition to Year 1	
8. Evidence on Desirable Life Long Learning Outcomes for Children of Reception Age	23
8.1 Academic Skills	
8.2 Executive Functioning	
9. Reflections on the Evidence	27
9.1 Emerging Themes	
9.2 Issues and Further Questions	
References	30

1. Scope of Literature Review

The Hundred Review of Reception is a national review of policy and practice in the Reception year which was launched in November 2016 by Early Excellence, partly as a response to The Teaching Schools Council Report on *Effective Primary Teaching Practice* (Teaching Schools Council, 2016). This report, led by ex-primary head teacher Dame Reena Keeble, stated that Reception was '*the most important year*' (2016, p.37), but found inconsistencies in teaching, compared to Year 1. Following publication of the report the government was called on to launch an official review of the Reception year (YR). Early Excellence has taken a lead in this process by launching a national review which aims to explore what an effective approach in the Reception year looks like in terms of expectations, pedagogy and curriculum. In particular, the review is exploring:

- How are good outcomes secured in the Reception year?
- What is effective teaching in Reception year and how do we know?
- What prevents or secures progress and attainment in the Reception year?

The review is drawing on the expertise of hundreds of practitioners, including reception teachers, school leaders, academics and others engaged with the development of good practice in the early years to document evidence on current Reception year practice. The evidence is being gathered through a series of focus groups, visits to 40 schools, events around the country and a national online survey. To support the Review process, Early Excellence has commissioned **The Centre for Research in Early Childhood (CREC)** to conduct a systematic literature review of academic and research material to:

1. Explore and critique the concepts of *school readiness* and *schoolification*;
2. Evaluate research evidence about current YR practice, provision and outcomes;
3. Evaluate national and international evidence from current neuroscientific, child development and pedagogic research that identifies the most appropriate pedagogical approaches that secure the best outcomes for children of Reception age;
4. Identify the most appropriate long term learning outcomes for children of Reception age;
5. Set out broad conclusions from the research review on the most significant evidence for appropriate outcomes and effective pedagogical approaches in YR.

This systematic review of evidence relating to Reception year practice will focus on high quality and rigorously executed research studies, predominantly carried out in English contexts since the introduction of the Early Years Foundation Stage (EYFS) in 2008. In addition we have looked at evidence from the Office for Standards in Education, Children's Services and Skills (Ofsted) Annual Reports, the Department for Education (DfE) funded EPPE/EPPSE Project and the Study of Early Education and Development (SEED). We have excluded opinion pieces, professional briefings, policy statements and practice guidance and limited our review to evidence published in recognised peer reviewed, academic journals rather than books (unless evidence based). The protocols, parameters and full results of our systematic search, the results of which form the basis for this review, are set out in Appendix 1 and in the Reference list at the end of this report.

2. Introduction

This review provides an overview of current academic and research literature on provision and practice in the Reception year in England. It also considers evidence about the impact of pressures to focus on *school readiness*, and the accompanying trend towards *schoolification* in Reception year classes, and how this affects children's outcomes.

England has a long history of child centred, play-based early childhood education, drawing on pioneers such as the McMillan sisters and Susan Isaacs. However, in the mid 1990's learning goals were introduced for the skills and knowledge pre-school children are expected to have on entry to compulsory education. Since the introduction of the *Desirable Outcomes for Children's Learning on Entering Compulsory Education* (SCAA, 1996) successive Governments have put increasing emphasis on early childhood education as a preparatory phase for school and the notion of *school readiness* as a key aim for Foundation Stage practice has been promoted.

In 2008 the *Early Years Foundation Stage* framework, a statutory framework for all early years providers, was introduced, bringing together three different frameworks; the *Curriculum Guidance for the Foundation Stage*, the *Birth to Three Matters* framework, and the *National Standards for Under 8s Daycare and Childminding* (DCSF, 2008). The EYFS was largely well received by the sector, and has since been revised in 2012 (DfE, 2012) and updated in 2014 (DfE 2014). With each amendment there has been some positively received additions to the curriculum but also some questioned changes (Early Education, 2012), such as replacing the *Development Matters* guidance with the much more abbreviated *Early Years Outcomes* (2013), which focuses on goals and outcomes. More recently, Dame Keeble (TSC, 2016) has called for a review of Reception year practice due to what she perceived as inconsistencies between the Reception year (EYFS curriculum) and Year 1 (Key Stage 1) curriculum:

The Department for Education [should] support a review to address the confusion and lack of consistency regarding curriculum and practice in the reception year.
(TSC, 2016, p.44)

This call for a review has caused concern across the early years sector in England who are calling on the *Teaching Schools Council* to commission an expert report on early years pedagogy (Early Education, 2016; TACTYC, 2016), as Dame Keeble's primary-focused advisory group drew on a limited sample of 20 schools and it is alleged that the advisory group had limited early years expertise. A major concern in Dame Keeble's report is the suggestion that best practice in the Reception year includes bringing '*year 1 approaches into reception*' (TSC, 2016, p.38) suggesting the Reception year should be aligned with the primary curriculum as opposed to aligning it with the EYFS curriculum, where legally, academically and pedagogically it can be said to belong. The report argued that keeping practice in the Reception year in line with the EYFS curriculum is of particular importance in England as the school starting age is one of the lowest in Europe. In England most children start school before they are five and some summer born children will only just have turned four when they start in Reception. Given the young age of these children, many in the sector

(Early Education, 2016; TACTYC, 2017) are questioning the desirability of imposing further Key Stage 1 expectations, or further *schoolifying* early childhood education. This review will look at evidence from research since the introduction of the EYFS in 2008 to explore what we currently know about Reception year practice and pedagogy, its impact on child outcomes and how this aligns with up to date knowledge of child development and effective early learning.

3. Review Methodology

At the core of this literature review is the question of what constitutes appropriate pedagogic practice in the Reception year. An expert view of appropriate practice is explored in this report, as only peer-reviewed research literature and major studies with close scrutiny of methods were included. The protocols, parameters and full results of the review are set out in Appendix 1 and the Reference list at the end of the report. Below is a summary of the methods we used to identify relevant literature.

Firstly, a search was made of bibliographic databases listing early childhood educational and psychological research literature. This entailed key concepts (key words) to be entered into the ERIC (Education Resources Information Centre) and BEI (British Education Index) databases and each result was evaluated for relevance. **Table 1** illustrates the initial search results which identified 628 entries. An initial screen identified 51 articles to be selected for further reading. The guiding criteria for further reading were literature relating to normally developing 4-5 year old children and early childhood education in England. Articles and reports between 2008, the year the formal EYFS curriculum was introduced, and 2017 were examined. After detailed reading, 25 research articles were selected for inclusion in the final review, as shown in **Table 2**. A concept-centric matrix was created to systematically record the articles reviewed (inspired by Webster and Watson, 2002). The literature reviewed included literature from the fields of education, sociology and psychology.

TABLE OF INITIAL ACADEMIC AND RESEARCH LITERATURE DATABASE SEARCHES
From an English perspective, 2008-2017

Search Terms	ERIC Educational Reports	ERIC Peer Reviewed Journal Articles	BEI Educational Reports	BEI Peer Reviewed Journal Articles
School readiness	0 (11) 5.1.2017	14 (403) 5.1.2017	0 5.1.2017	12 (95) 5.1.2017
Schoolification	0 5.1.2017	1 (6) 5.1.2017	0 5.1.2017	0 (3) 5.1.2017
Early Childhood, Pedagogy, Outcomes	0 (1) 5.1.2017	12 (31) 6.1.2017	0 6.1.2017	4 (10) 6.1.2017
Reception Year	0 8.1.2017	4 (24) 8.1.2017	0 8.1.2017	2 (22) 8.1.2017
Transition Reception Year	0 17.1.17	0 (2) 17.1.17	0 17.1.17	0 (1) 17.1.17
Transition Reception	0 17.1.17	0 (11) 17.1.17	0 17.1.17	2 (8) 17.1.17

* The number before the brackets indicates number of possibly relevant sources on first search

** The number in the brackets indicates the number of hits when entering the search terms

*** The date indicates the search date

Table 1. Initial search results

FINAL SELECTION OF ARTICLES				
Search Terms	ERIC Educational Reports	ERIC Peer Reviewed Journal Articles	BEI Educational Reports	BEI Peer Reviewed Journal Articles
School readiness	0 (11)	10 (403)	0	5 (95)
Schoolification	0	1 (6)	0	0 (3)
Early Childhood, Pedagogy, Outcomes	0	4 (12)	0	2 (4)
Reception Year	0	1 (4)	0	0 (2)
Transition Reception Year	0	0	0	0
Transition Reception	0	0	0	2 (2)

Table 2. Articles included in the review

In addition to this systematic search, evidence from Ofsted annual reports, a number of DfE evidence reviews and the large scale EPPE/EPPSE study and SEED study were also included in the review. The evidence was analysed through systematic and iterative reading of the identified papers and a consideration of the issues set out in the review brief. After a period of immersion in, and crystallisation of, the evidence, the findings are presented below in relation to each of the specified issues in the review brief.

4. Evidence on Concepts of School Readiness and Schoolification

It is evident in much of the recent research literature that the increasing prominence of a *school readiness* agenda and the accompanying *schoolification* of early years pedagogy and practice in relation to the Reception year are viewed as essentially political actions and reflect a shift in values and beliefs about the role and purpose of early education within policy making at a national level. The evidence indicates that this shift is clearly impacting sharply on Reception year teaching and learning and a number of studies reveal that teachers are feeling increasingly pressured by this agenda. However, before we explore this evidence it is important to understand how these two key concepts are being defined and explored in the literature about early years policy and practice.

4.1 School Readiness

As TACTYC point out in their Occasional Paper which reviews perspectives and evidence on *school readiness* (Whitebread and Bingham, 2014) a model of *readiness for school* is attractive to governments as it seemingly delivers children into primary school ready to conform to classroom procedures and able to perform basic reading and writing skills. However, the authors point out that from a pedagogical perspective this approach fuels an increasingly dominant notion of education as *transmission* and *reproduction*, and of early childhood as preparation for school rather than for life. Their paper demonstrates that the phrase *school readiness* or *readiness for school* has been used with a variety of connotations in a number of DfE documents and also by academics and educational advisory groups over recent years, reflecting a wider trend. This paper argues that arguments about whether, how

and why a child should be *made ready* are symptomatic of a far deeper tension growing within the early years education sector, in relation to a deep conceptual divide. They point out that:

there is no agreement upon a definition of the term 'school readiness' or 'readiness for school' and its use, because there is no agreement upon what young children should be prepared for; in essence, the disagreement about terminology and definition encapsulates a fundamental difference in conception of the purpose of early years education.

(Whitebread and Bingham, 2014, p.1)

However, in another paper Neaum (2016) states that wanting to prepare children for school is, in itself not contentious but if the purpose of early childhood education is simply seen as a stage for preparing children for primary school, tensions can arise between the two main approaches; the neo-liberal *readiness model* and the *social pedagogic model*. In her paper, Neaum links the current *readiness for school* agenda to the Government's wider political agenda, supported by the powerful position Ofsted has in influencing policy through their inspection regime and in maintaining this *readiness* discourse. The purpose of Neaum's paper is to outline how a political and economically driven agenda is impacting on practice and change in early childhood education. The debate is, according to Neaum informed by the above-mentioned two distinctly different discourses or pedagogic approaches.

Drawing on Bernstein's (2000) *Performance and Competence* model, Neaum argues that the Government's *performance* model, with a focus on narrowing the gap between poorer children and their more advantaged peers may in fact *'disadvantage the children who are its main focus'* (p.249) as they may not be familiar with *performance* expected values and behaviours in the education system. She therefore notes, referring to Whitebread and Bingham (2014), that to make education accessible to all children we need to question provision, and not locate the problem in the child. She argues that the *competence* model takes context and contents more into account, and may as such be a more appropriate model for narrowing the gap. Neaum gives a detailed account of the two models to make explicit the tensions between the two, and in the process develops a clearer understanding of the theoretical concepts behind current *school readiness* issues in England. Although Neaum is highly critical of the *performance model* she also urges us to question and not take for granted pedagogic practices within the *competence* or *social pedagogic model*.

4.2 Schoolification

Ang's (2014) paper also gives an account of how politically derived principles of competition and choice influence government policies and parental perceptions in various countries. In her paper, Ang calls for a rethinking of the role of early childhood education and she questions the underpinning competing societal norms and values in a given society. However, according to Ang, to understand the current national circumstance, a wider understanding of what is happening globally is needed, as national circumstances are intimately linked to global debates. She discusses how international organisations such as the OECD and UNESCO, that compare and evaluate education systems on a regular basis, have fuelled a global competition and in its wake have caused a downward pressure on early childhood education. As such, Ang argues that the current political discourse fuels the

schoolification of the early years, not only in England but globally. She argues that when early education is framed within an economic paradigm it risks being reduced to simply being a stage of preparation for school and educational attainment. Within this discourse, assessment then takes on an instrumental role. The recently announced OECD International Early Learning Study (IELS), which is an international PISA-style assessment of early learning outcomes among 5-year-olds, sits within this identified trend. The OECD states that the proposed IELS is intended:

to help countries improve the performance of their systems, to provide better outcomes for citizens and better value for money...[by showing] which systems are performing best, in what domains and for which groups of students...[and providing] insights on how such performance has been achieved.

(OECD, 2016)

This study has been sharply criticised by senior academics from Europe (including England), North America and Australia/New Zealand on several grounds, including that of reducing the complexity and diversity of paradigm, theory, pedagogy, provision, childhood and culture across countries to a technocratic and universally applied framework for all countries, all pedagogies and all services (Moss, 2016).

This international shift towards *schoolification* is evident in England according to Ang (2014). She asserts that although the English EYFS curriculum was well received, as it was introduced in 2008 with its central notion that a quality preschool experience can make a difference to children's development and improve outcomes for all children, with the way it has evolved (DfE 2012; 2014) there has been an increased emphasis on educational attainment, assessment and working towards learning goals. This in turn, according to Ang, has led to the *schoolification* of the early years. Another example Ang gives of how the general assessment culture has crept into the early years is the statutory phonics screening check for 5-6 year olds that was introduced in 2011. Although Ang paints a rather bleak picture, she believes there are possibilities for change if we rethink early years education. She firstly suggests we need to advocate for '*a more holistic approach to assessment and the curriculum with a renewed focus on the affective domains of children's learning*'; and secondly, she urges professionals to reclaim their autonomy by '*exploring differentiated and innovative approaches to assessment and the curriculum*' (p.192). Ang mentions Laevers, Claxton and Carr's research and work, as examples of different approaches to current assessment practices.

Although Ang's recommendations are valid, it is evident that they do not challenge the *schoolification* of early childhood and an assessment driven system, rather arguing for it to be done in a more age appropriate way. However, Ang's paper does address the importance of taking children's different backgrounds into account and points out that an appropriate curriculum must be able to make allowances for diverse learners with varying abilities and backgrounds, for whom learning in a formal setting may be unfamiliar. Ang ends her paper with a plea to all adults who work for and with children to reflect on their practice and values, and to advocate for early years education to be in the best interest of children's well-being and development.

Brogaard Clausen (2015) adopts a similar perspective to Ang (2014) in her comparative research. She gives a detailed account of recent changes in policy and practice in England and Denmark. Brogaard Clausen describes how the notion of *schoolification* of the early years has not only taken hold in England through successive changes to the curriculum but shows how it is creeping into the discourse in Denmark through, for instance *learning plans*, and thereby, it is argued, threatening the country's originally social pedagogic and democratic approach through the discourse of assessment and accountability. This is an example of how the *readiness* discourse is becoming a global phenomenon as discussed by Ang (2014).

Many of the recent curricula changes, with an emphasis on academic skills, goals and outputs, Brogaard Clausen (2015) also sees as moving towards or reinforcing the *schoolification* of the early years. Language assessments have for instance been introduced in both countries and can be seen as reinforcing the *schoolification* of the early years. In addition, the fact that the new *Early Learning Goals* align more closely with the national curriculum, Brogaard Clausen sees as another indication of *schoolification* in England. However, the most disconcerting shift for Brogaard Clausen seems to be how the *schoolification* discourse is creating more hierarchical structures which she sees as threatening the traditional egalitarian and democratic culture in Denmark. This discourse is seen as not only hindering democracy but also silencing parents', professionals' and children's voices. Brogaard Clausen ends her paper with encouraging everyone to:

keep seeing the child as an individual within the context of strong connections to friends, family, professionals and the community, and keep seeing childhood as having intrinsic value to the child itself and to the community and society as a whole.

(Brogaard Clausen, 2015, p367)

This research highlights how small changes in the curriculum over time can create unforeseen larger changes, and that this can happen with a lack of questioning or even understanding the subtle changes in underlying values and norms of successive governments.

4.3 Re-conceptualising Readiness

In contrast, Evans (2015) interesting paper suggests a way of reconceptualising the *readiness* discourse from a Deleuzo-Guattarian and Deweyan perspective. She questions the notion of an *unready* or *ready* child as it reduces a complex issue such as *readiness* to a mechanistic linear logic of pre-determined goals along a spectrum of *unready* to *ready*. She argues that a complex issue such as *readiness* requires a non-linear logic. Drawing on Deleuz and Guttari, her paper proposes that the notion of *becoming*, adds a perspective to *readiness* that it currently lacks. Although *becoming* is directional it can be understood as having no fixed beginning or endpoint; it is a form of *emergence*. This moves the notion of *readiness* away from a cause-and-effect model '*in which 'readiness' can be conceived as a stable output, equitable to a particular input*' (p.38), towards a model where readiness is seen more in line with '*the conditions necessary for open-ended 'becoming' [change] to happen*' – '*an active process that produces, rather than measures learning and development*' (p.39). This adds a relational aspect to *readiness* that is becoming more evident in current literature. Evans points out that her Deleuzo-Guattarian notion of *readiness*, having a relational aspect to it

therefore also has an ethical dimension. Although Evans' language is at times dense and technical, the notion of a more relational and ethical interpretation of *readiness* opens up the possibility to see it as the more complex issue it is, firmly placing the responsibility of *readiness* on the adults involved and not locating it as a problem located in the child.

In a short paper by Pretti-Frontczak *et al.* (2016), it is suggested that there are three fundamental mistakes that are made worldwide in *getting children ready* for school:

1. *Readiness* is conceptualized as a trait
2. *Readiness* outcomes are fragmented and taught in isolation
3. *Readiness* policies and practices emphasize standardisation

Pretti-Frontczak *et al.* also offer three remedies:

1. Conceptualizing *readiness* as a relationship
2. Seeing the child as an integrated whole
3. Expecting and valuing differences

Pretti-Frontczak *et al.* (2016) urge that '*policies and practices should avoid focusing on the child's ability to demonstrate a set of discrete skills or a set of narrowly defined skills*' (p.50). In line with UNICEF's (2012) approach they also promote an understanding of *readiness* as a holistic concept where all stakeholders need to be ready; children, families and schools. In other words they see *readiness* from an ecological perspective where all involved are interconnected (Bronfenbrenner, 1979).

5. Evidence on Current Reception Year Practice

Rigorous research evidence on the actuality of current Reception year practice and pedagogy is rather thin, and reports are largely drawn from Ofsted inspections or professional experiences rather than rigorous and systematic reviews of practice. However, it is interesting that the picture of current Reception year practice, as evaluated in the research papers identified in this review, contrasts with the largely positive picture provided by Ofsted inspections, and reveals a rather more challenging picture of Reception year teaching and learning. The research evidence suggests that Reception year classes are preoccupied with enhancing and assessing children's progress towards pre-defined learning goals and responding to the pressures of *narrowing the gap* targets in children's attainment on exit from EYFS (end of Reception year) and this is causing stress and anxiety for Reception class teachers, and is failing children from less advantaged backgrounds. The Ofsted evidence paints rather a different picture of this phenomenon.

The most recent Annual Ofsted Report for 2015/16 (Ofsted, 2016) paints a largely optimistic and improving picture of teaching and learning in maintained nursery and reception classes, particularly in less advantaged areas, as assessed by the Ofsted framework. The report indicates that the quality of early years provision in all types of setting has continued to rise between 2012 and 2016, with 91% of all active early years providers being now good or outstanding, with the quality of early years provision in maintained schools being similarly high. The report also reveals that the proportion of good and outstanding primary schools has risen from 69% to 90% in five years, stating that the focus on reading and systematic

synthetic phonics has been a particular strength. However, the report does point out that the successful emphasis on reading, writing, spelling and grammar is sometimes resulting in a narrower curriculum.

We now turn to the research evidence to explore what this reveals about current Reception year practice.

5.1 Assessment and Learning Goals

The implicit values promoted in the Early Years Foundation Stage Profile (EYFSP) (STA, 2016), the assessment tool used at the end of the Reception year in England to evaluate the learning of 5 year old children, are examined in a paper by Bradbury (2013). She argues that current education policies and assessment tools promote rather a narrow view of what constitutes a *good learner*. Bradbury points out how by being so detailed, the 17 Early Learning Goals (ELG) in the *EYFSP* promote a model of the '*ideal learner*' that may disadvantage some children (p.16). According to Bradbury, many of the values inherent in the ELGs, such as the expectation that children should be able to make rational choices and take individual responsibility for their learning, reflect a particular view of the child. She fears that a restricted notion of the *ideal learner* may in effect systematically disadvantage some children, as assessment tools affect classroom practices.

Drawing on two ethnographic studies, Bradbury argues that the EYFSP assessment shapes what is valued in the classroom through the way it positions the child as *becoming* a particular learner by prioritising: rationality; enthusiasm; flexibility; industriousness; self-regulation; reflectivity; and self-promotion. The Reception year is in many ways a unique year according to Bradbury, as a transition year, and while acknowledging that many of these are desirable traits for learners, she argues that there is a genuine danger that by pursuing a narrowly focused agenda, the curriculum will be inaccessible to some children, and the desire to reduce the attainment gap will remain unreachable.

5.2 Narrowing the Gap

Derbyshire *et al.* (2014) in their paper reject the notion that it is anyone's task to '*train children to be school ready*' (p.816). They assert that if the education system was more responsive to children from less affluent backgrounds, taking their particular vulnerabilities into account, disadvantaged children would not start from a *deficit* position and be seen as failures at an early age. In their research Derbyshire *et al.* challenge the current *readiness* discourse specifically in relation to children from less advantaged backgrounds. Instead of *training* children to get them ready for school they stress that it should be the reverse; it should be the responsibility of schools to be ready for the children. They, like Ang (2014) and Evans (2015), discuss the mismatch between the life experiences and cultural values of children, families and communities in relation to what may seem to them to be a decontextualized school culture. They reject the *deficit model* that ascribes blame on individual children and their family background. Derbyshire *et al.* state that schools need to become more responsive to children from less affluent backgrounds and more creative in engaging with children who may not be ready for formal schooling on entry to the Reception year. They suggest schools should be more sensitive to life experiences outside school and offer broader developmental experiences rather than just focusing on moving children towards fitting in with narrow school norms and practices.

Derbyshire *et al.* make a further important contribution to the limitations of the *deficit model* when they state that children from challenging backgrounds, who are on Free School Meals (FSM), have Special Educational Needs (SEN) or English as an Additional Language (EAL), may have other multiple vulnerabilities not identified in the above categories. In other words these single labels or categories may mask other more relevant factors that lead to vulnerability in some children and that in return may pose additional barriers to their learning on entry to, and exit from, the Reception year. They therefore propose that a more useful way of understanding children with low attainment, who may be perceived as not *ready* for school, is by looking at a range of vulnerabilities these children face beyond the commonly used categorisations such as FSM, SEN and EAL.

Derbyshire *et al.* also stress that vulnerable children may ultimately not feel they *belong*. They feel strongly that schools therefore need to look for different strategies to bridge the disconnect between school experiences/expectations and home experiences, to make school more relevant to meet the needs of these children who are finding it difficult to access the curriculum. In other words, in their view the home culture needs to be the starting point, not assessment scores, when exploring ways in which schools can be ready for children.

Robertson's (2015) short paper also addresses the notion of how the current *narrowing the gap* agenda is actually creating a system of winners and losers and she likewise ascribes this to the current *school readiness* agenda. She questions if we really can give children the best possible start in life in the current situation of funding cuts, fragmentation of the workforce and the prevalent notion of *school readiness* linked to the increased testing of young children. Robertson maintains a big problem with the current testing regime is the subsequent result of some children feeling as failures at the age of 5 or 6 if they do not meet expected standards. She raises a concern about the shift from *desirable outcomes for children's learning* in 1996 to children now being able to fail to achieve a set of standards at the age of 5.

5.3 Datafication

Roberts-Holmes (2015), drawing on a research study with 20 Reception teachers, also discusses how assessment may disadvantage some children and how the current narrowing of early years assessment is leading to an intensification of the *readiness* agenda in the Reception year. His research revealed a disturbing picture of practice in some Reception classes in England. Roberts-Holmes also ascribes this to the Government's political agenda from both an assessment and inspection perspective, as the new inspection system for early years provision is aligned with primary school inspections. With the intensification of the *readiness* agenda, early years teachers in Roberts-Holmes' research expressed that they felt '*under pressure to produce data for Ofsted inspections*' (p.306), to be able to achieve a *good* or *outstanding* Ofsted grade. Teachers were however not only under pressure to produce data, but, what they perceived as, *correct data*. To be able to produce correct data, the research revealed that some schools adopted a process where children are systematically sorted into three groups: a group of children who are expected to achieve and who are left to get on with it; a group of children who are expected to achieve with careful interventions; and a group of children '*doomed to fail*' and who are therefore ignored (p.308); all to ensure

that teachers and schools achieved expected data. The focus as such was on numbers as opposed to children's holistic learning and development. Although Roberts-Holmes' research also revealed evidence of teachers challenging the current agenda, teachers felt the *datification* of the field greatly constrained them from adopting a more child-centred, social pedagogic interpretation of the EYFS. This research provides examples of where a politicised education agenda can be seen to reach beyond its intended remit and create a segregated system.

Evans (2015), like Roberts-Holmes, also questions the current data driven system but interestingly points out how as a teacher she felt that data can take on different meanings in the course of an academic year. In the first two terms, Evans suggests, assessment data is used more to guide learning and development; however, in the final term of the Reception year it also had to be used to '*measure, record and communicate children's readiness*' (p.34) through the 17 Early Learning Goals (DfE, 2012; 2013). Her paper indicates that it is how we use data, not data itself, which may be negative. Evans states that a narrow data and goal driven view of *readiness* means that some children enter school in a *deficit position*, echoing the work of Derbyshire *et al.* (2014), usually because their cultural experiences have been different to that of their more advantaged peers. This also links in with Ang's notion of an (in)appropriate curriculum, and the need for a curriculum that takes children's different backgrounds into account without labeling them as failures.

6. Evidence on Appropriate Pedagogic Approaches and Child Outcomes for Reception Age Children from Large Scale Longitudinal Studies

Two large scale, longitudinal studies focusing on the impact on child outcomes of different types of early years provision and of different pedagogic approaches offer important insights to guide the development of appropriate pedagogic approaches in Reception classrooms.

The first longitudinal study is the Effective Provision of Preschool, Primary and Secondary Education 3-14 (EPPE/EPPSE) Project. The EPPE/EPPSE project took place from 1997-2014 and was the first major European longitudinal study of a national sample of young children's development (intellectual and social/behavioural) between the ages of 3 and 14 years. It investigated the long-term effects of pre-school education for 3 and 4 year olds by collecting a wide range of information from over 3,000 children, their parents, home environments and the pre-school settings they attended. Settings (141) were drawn from a range of providers (local authority day nursery, integrated centres, playgroups, private day nurseries, maintained nursery schools and maintained nursery classes). In addition to investigating the effects of pre-school provision on young children's development, EPPE also explored the characteristics of effective practice (and the pedagogy which underpinned them) through twelve intensive case studies of settings with positive child outcomes.

The second longitudinal is the Study of Early Education and Development (SEED), an 8-year study due for completion in 2020 which is following 8,000 2-year-olds from across England through to the end of KS1. It aims to find out how childcare and early education can help to give children the best start in life and what is important for high quality childcare provision. It is interviewing families in their homes when their children are aged 2, 3 and 4, and also

visiting 1,000 childcare settings being used by the children in the study, to look at the experiences they offer and how they establish good practice. Other strands of activity include case studies focused on childminders and provision for children with special educational needs and disabilities, as well as a value for money assessment.

6.1 Effective Provision of Preschool Education (EPPE) Project and Effective Pre-school, Primary and Secondary Education (EPPSE) Project

Evidence from the important and large scale **Effective Provision of Preschool Education (EPPE) Project** and the subsequent **Effective Pre-school, Primary and Secondary Education (EPPSE) Project** (Sylva *et al.*, 2004, 2010; Taggart *et al.*, 2015) indicates that certain pedagogical practices appear to be more effective than others in improving attainment for less advantaged children. There has been a long debate about the extent to which preschool education should be formal or informal, often summarised by the extent to which the curriculum is play-based. The EPPE study concludes that in the most effective centres play environments were used to provide the basis of instructive learning. However, they found that the most effective pedagogy combines both *teaching* and providing freely chosen, yet potentially instructive play activities. They point out that effective pedagogy for young children is less formal than for primary school but its curricular aims can be academic as well as social and emotional. It should also be noted that effective pedagogic practice was more often found in maintained school provision, including nursery schools and classes and Reception classes.

Through analysing the progress of children during the Foundation years, researchers identified individual settings that promoted children's developmental outcomes beyond what would be expected given the child's developmental profile at age 3 and their social background. EPPE conducted intensive case studies in 12 centres, including Reception classes, identified in the middle and upper range of *effectiveness*. *Effectiveness* was based on the amount of progress children made at each centre, after controlling for pre-test and social background. The purpose of the case studies was to explore the practices that might explain why children fared so well in some of them. The case studies identified four areas that appeared to be particularly important when working with children aged 3 to 5 years:

1. *The quality of interactions*: The quality of interactions between adults and children was shown to be a vital element in the effectiveness of an early education programme, and responsive, sensitive, nurturing relationships were more effective in supporting an open attitude, learning and exploration. The EPPE study identified effective pedagogic interactions and revealed that more '*sustained shared thinking*' (Sylva *et al.*, 2004, p.1) was observed in settings where children made the most progress. This occurs when two or more individuals work together in an intellectual way to solve a problem, clarify a concept, evaluate an activity, extend a narrative etc. Both child and adult/child must contribute to the thinking and it must develop and extend the understanding. The study found that it was more likely to occur when children were interacting 1:1 with an adult or with a single peer partner and during focussed group work. In addition to *sustained shared thinking*, staff engaged in open-ended questioning in the settings where children made the most progress and provided formative feedback to children during the activities. Adult *modelling* skills or appropriate behaviour was often combined with sustained periods of shared thinking: open ended questioning and modelling were also associated with better cognitive achievement.

2. *Initiation of activities*: The opportunity for children to self-manage, to take initiative and self-direct their learning was shown to be a vital factor in effective early education programmes. In the EPPE study, the balance of who initiated the activities, staff or child, was about equal in the most effective settings. Similarly, in effective settings the extent to which staff members extended child initiated interactions was important. The study found that almost half the child initiated episodes that contained intellectual challenge included interventions from a staff member to extend the child's thinking. Also, freely chosen play activities often provided the best opportunities for adults to extend the child's thinking. The study suggested that extending the child initiated play, coupled with the provision of teacher initiated group work, are the most effective vehicles for learning. Children's cognitive outcomes appeared to be directly related to the quantity and quality of the teacher/adult planned and initiated focused group work.

3. *Behaviour expectations and discipline*: The EPPE study has shown that the way in which behaviour is managed and discipline expectations are enforced is key to effective learning support. The most effective settings in the EPPE study adopted discipline/behaviour policies in which staff supported children in rationalising and talking through their conflicts. In settings that were less effective in this respect, EPPE showed that there was often no follow up on children's misbehaviour and, on many occasions, children were distracted or simply told to stop.

4. *Diversity*: The evidence from the EPPE study showed that training, developing and monitoring provision for diversity leads to better outcomes for less advantaged children. The study found that quality practices related to diversity were associated with as many as 5 of the 9 cognitive and behavioural attainment outcomes, more than any other one factor, including literacy. Low attainment was associated with diversity in ethnic background, language, gender, special needs and socio-economic status at all levels of education. EPPE found that most early childhood settings provided a relatively low quality learning environment for children in terms of diversity. The quality of diversity was higher in combined centres and nursery schools. Yet, strong patterns of association were found between scores for diversity and children's attainment in early number and non-verbal reasoning and positively linked to scores on pre-reading. Diversity quality was a very strong predictive factor in terms of children's cognitive outcomes. It was also associated with social and behavioural outcomes such as independence, cooperation and conformity. The diversity rating included factors such as planning for individual learning needs, gender equity and awareness and race equality within the settings.

6.2 Study of Early Education and Development (SEED)

The **Study of Early Education and Development (SEED)** is another major English study which is currently exploring early years provision and how it may improve outcomes for children and their families. This study is following around 6,000 children across England from the age of two through their first few years at school. One element of this study has provided case studies of good practice in early years settings (Callanan *et al.*, 2016). 16 case studies were carried out with early years settings assessed as having *good* or *excellent* quality provision as part of the wider SEED project. It should be noted that this study did not include primary schools, but did include Nursery schools. These case studies are exploring how good quality early years settings articulate, establish and sustain good practice that has the potential to improve child outcomes. It examines good practice in relation to curriculum planning,

assessment and monitoring, staffing, managing transitions and communication with parents and home learning. The evidence has clear relevance for the Reception year and their analysis builds on the EPPE study, re-affirming the following features of effective pedagogic practice for children from 3-5 years:

1. *Curriculum planning*: Good practice in relation to curriculum planning included approaches that were:

- Child-centred;
- Capitalised on children's interests in order to achieve learning outcomes;
- Flexible and responsive to children's needs;
- Informed by on-going assessment;
- Grounded in the EYFS framework; and
- Differentiated for age and stage of development.

Staff at early years settings also thought that curriculum planning was strengthened by consultation and input from staff at all levels and regular evaluation. Finally, settings stressed the importance of communicating planning effectively so that staff understood the aims and objectives and were clear on their roles.

2. *Assessment, monitoring and tracking progress*: Assessment and progress tracking were believed to be valuable only if used effectively to support learning and development; to identify children requiring additional support; and feed into curriculum planning. Features of good practice felt to support this included:

- Regular communication between staff to raise awareness of issues identified through assessment;
- High staff /child ratios that gave staff sufficient time to carry out regular observations and;
- Effective use of digital assessment tools that facilitated timely analysis of data.

Employing trained staff with a good understanding of child development; carrying out regular audits and quality checks on assessments; and moderating judgements were viewed as features of good practice to tackle this issue. Providing sufficient time for staff to carry out effective assessment was also viewed as critical. Effective use of digital assessment software and dedicated time for staff to update and record assessment data were felt to be important features of good practice.

3. *Emphasis on prime areas of learning*: Setting staff placed the personal, social and emotional development of their children at the heart of their practice. Strategies identified as effective in supporting this development included staff modelling *prosocial* behaviour; small group activities that supported children to work together, share and take turns; a consistent approach to behaviour management and using snacks and mealtimes as an opportunity to foster *prosocial* behaviour. Fostering happy and confident children was a primary goal. Warm and positive relationships between staff and children; consistency and routine; and strong relationships with parents were all viewed as features of good practice that supported wellbeing. Encouraging children to do things for themselves; involving them in decision making and supporting them to find their own solutions to conflicts were elements of good practice felt to encourage self-regulation and independence.

To support early language development and communication, settings prioritised creating a *language rich* environment through the use of songs, nursery rhymes, stories and providing time for adult/child and peer-to-peer interaction. High quality adult/child interactions were

viewed as essential, as was encouraging home learning and the quality of parent/child interactions through activities and reading at home.

To support cognitive development and instil a lifelong love of learning, strategies included taking a child-centred approach, ensuring access to a wide range of resources that were age appropriate; using visual aids to support learning; and providing an environment with age appropriate furniture and equipment. Staff with the professional knowledge and skill to support this learning underpinned this good practice.

4. Supporting transition: Features of good practice thought by staff and parents to support transitions into settings included carrying out home visits; gathering information from parents about the child; and working in partnership with other settings to gather relevant information and support the child with the transition. Setting visits; gradually increasing the time children attended; matching activities to children's interests; and providing consistency and routine were strategies felt to help children to settle. Setting staff also felt they had a role to play in supporting parents with the transition and that it was important to be proactive in keeping parents informed about how the child was settling in. Good practice in relation to supporting transitions to school included effective information sharing with schools through transition reports, school visits to settings, and consulting parents on the information that was being shared. Taking children to visit their new school, and building on-going relationships with local schools were features of good practice that were felt to help children make the transition smoothly. Setting staff also described putting in place activities to prepare children for the move, such as activities to encourage greater independence.

In identifying features of good practice in early education, three broad cross-cutting themes are identified in the SEED case studies:

- *Child-centred practice:* Underpinning good practice was an ethos that placed the child at the centre of setting practice. Systems and processes were developed with the wellbeing and development of the children in mind and this helped settings maintain focus and avoid distractions that might detract from this focus. In practice, this meant settings had a clear vision of what they wanted to achieve for the children in their care, and these clear goals informed all areas of their practice.
- *Skilled and experienced staff:* A second cross-cutting theme was the importance of staff that were qualified, knowledgeable and experienced because it was this skilled workforce that underpinned the practices that supported children to reach their full potential. Given the importance of a skilled workforce, settings with good practice worked hard to recruit and retain high quality staff, and prioritised on-going support for their staff's development. Strong leadership was also considered vital, and good practice was underpinned by leaders who led by example; fostered team work and had a clear vision of what they were aiming to achieve.
- *An open and reflective culture:* The final theme running throughout this examination of good practice was the importance of an open and reflective culture, as this was thought to drive continuous improvement; create a positive working environment and encourage sharing of good practice to increase the quality of the early years sector as a whole. In practice this meant that settings with good practice sought out and worked in partnership with other settings and professionals; recognised the knowledge and expertise of their own staff and valued open discussion and staff consultation; and embedded a culture of self-evaluation as a means of driving continuous improvement.

7. Evidence on What Constitutes a Developmentally Sensitive Pedagogic Approach in Reception Classrooms

The current EYFS supports a play-based pedagogic approach, but increasingly as children move through the Reception year towards Year 1, other more formal and outcome based pedagogic approaches are becoming evident, as pressures mount to ensure children are *school ready* and to secure more congruence between Year 1 and Reception year practice. This shift in practice away from that recommended in the EYFS can include the introduction of a systematic programme for phonics teaching and the delivery of the National Literacy and Numeracy Strategies in the Reception year. The recent evidence on the value of *play-based*, more relational approaches for children from 3-6 years in securing long term outcomes in all areas of learning may be challenging this current direction of travel. Emerging developmental evidence reveals that an *earlier is better*, more formal, didactic approach may be misguided and will not make a difference in the long term. In contrast to the focus on early, didactic instruction, current research (as detailed below) into early emotional and cognitive development suggests that long-term well-being and success at school may be more dependent on children developing *executive functioning* and self-regulation abilities, and exercising autonomy in their learning. Deeper understandings of children's development, combined with the detailed and robust research evidence into the characteristics of high quality early education provision, enables the identification of an effective pedagogical model of learning and teaching in the Reception year. This evidence sharply indicates that play should be seen as a key vehicle for learning throughout the early years.

7.1 Play-based Pedagogies

Goswami and Bryant (2007) report evidence from neuroscience which has shown that learning depends on neural networking across visual, auditory and kinaesthetic brain regions indicating that opportunities for multi-sensory, active learning are key to learning. It follows that play, both free and guided, is central to facilitating both social and academic development in young children. For example, the study by Diamond *et al.* (2007), that used guided play throughout a school day to help pre-school children learn how to curtail impulsive behaviours and responses, found *executive function* skills (attention, problem solving, and inhibition) were also nurtured and these impacted on attainments in mathematics and reading.

Broadhead's (2009) practice based research in a school in North-East England explored the value of play in learning. In this school they were looking for a solution to escalating conflict and unacceptable behaviour. Although conflict-resolution programmes were an option, the school questioned if they were the best way forward for developing children's social skills. Broadhead suggested that '*play and regular peer engagement in problem-solving and personally relevant activities may be more effective and more likely to promote learning*' (p.107). The vignettes referred to from the research illustrate how play stimulated social skill development in a naturalistic way. This study supports the notion that the opportunity to play is very important for learning; however, Broadhead points out that in teacher-directed classrooms, play is often used as a reward rather than as a potentially valuable learning experience. The data from this one Reception class showed that peer conflict was reduced

when children gained extended access to play. Broadhead therefore advocates an increase in child-initiated and child-directed play, in other words, a playful pedagogy as opposed to intervention programmes to improve social skills in the early years. Her call to '*let us give play back to children rather than compensating them for its loss through intervention programmes*' (p.115) is very pertinent. Although this paper highlights the importance of play for social development in the Reception year, Broadhead (2011) fully recognises the place for teacher-directed activities but argues it is the balance between the two that needs addressing in the Reception year. Her work also shows how following children's interests and learning through play can still meet externally imposed targets and Government requirements.

Hedges and Cooper's (2014) paper contributes to the debate about what constitutes an appropriate curriculum, pedagogy and outcomes in early childhood by discussing how a child-initiated, play-based approach needs to make learning visible, through clear documentation, to reassure parents and policy-makers that learning is taking place. Hedges and Cooper note that there is still widespread doubt about the value of play-based learning. '*It is vital then to find ways to make visible, and assist parents [and policy makers] to value the social and cognitive processes through which children learn during play*' according to Hedges and Cooper (p.396). Although Hedges and Cooper's two-year research project in play-based settings in New Zealand included children younger than Reception children, their research is still relevant to the current review and the notion of what constitutes an appropriate curriculum. They suggest an appropriate curriculum combines content and process in the early years, in other words a balance between *social-pedagogic* and *academic readiness* aims.

Hedges and Cooper further talk about *disposition* and *working theories*, and define these concepts drawing on Margaret Carr and Guy Claxton's work. The most important message from this paper is how clear documentation is needed to make visible children's thinking '*that will lead to recognisable academic learning in the future*' (p.401). Hedges and Cooper conclude their paper by promoting a play-based pedagogy based on six principles:

1. Making the learning process visible;
2. Valuing content and process;
3. Emotionally engage the learner by building on children's interests;
4. Supporting challenging tasks;
5. Developing relationships with children and families;
6. Reflection and responsibility.

Although this research set out to make concepts in the *Te Whāriki* curriculum more accessible to a wider audience in New Zealand, the six principles Hedges and Cooper suggest for re-conceptualising outcomes in New Zealand are valid for re-visioning teaching practices in the Reception year in England.

The paper by McGuinness *et al.* (2014) may be one of the more important recent papers in this review. In this study, the authors compare the outcomes of a play-based, developmentally sensitive curriculum with a more traditional curriculum. McGuinness *et al.* present data from the evaluation of the *Enriched Curriculum* (EC), the play-based curriculum that was introduced in volunteer schools across Northern Ireland in 2000, and later became

the *Foundation Stage* curriculum in 2007 (Walsh, 2011). The reason this research is instrumental is because the study followed a large number of children into primary school and investigated the medium-term effect the play-based, developmentally more sensitive, early childhood pedagogy has had on progress in reading and mathematics. The results showed that in the 'two to three [first] years of school, the EC children's reading and mathematics test scores were substantially poorer than children following the traditional curriculum' (p.787); however by the end of primary school (Year 4 in Northern Ireland), there was no difference between the EC children and the controls. The main difference, reported in another paper (Walsh *et al.*, 2006) was 'the positive effects of the EC compared to the traditional curriculum on the quality of the children's immediate experiences (McGuinness *et al.*, 2014 p.786). This paper raises some important issues to consider in relation to what an early childhood curriculum should aim to achieve in the short and long term.

7.2 Child Initiated or Teacher Led Play?

In another paper related to this research, Walsh *et al.* (2010), state that the overarching principle in the EC is what they call *playful structure*. In a playfully structured environment teachers guide children's learning experiences in a playful way. As they talk about 'maintaining adequate structure to ensure that effective learning takes place' (p.23), it gives the impression that during adult-child interactions, the adult is very much in control, albeit in a playful way. Within this framework it seems adults are being given the *permission* to teach through play.

This seems very similar to what Weisberg *et al.* (2013) call '*guided play*', which they propose as an alternative to traditional teaching in the early years (p.104). They assert that guided play, which lies somewhere between direct teaching and free play, is not only more developmentally appropriate but that the evidence that they reviewed suggest that it outperforms didactic approaches when it comes to academic and cognitive outcomes. Weisberg *et al.* refer to a number of studies in the US to support their argument that '*guided play offers an appropriate middle-ground pedagogical approach for preschool education*' (p.105). They define *guided play* as interactions that '*incorporate adult-scaffolded learning objectives but remains child-directed*' (p.105). Although Weisberg *et al.* consider their approach a *social pedagogic approach*, and endorse a combination of play and more structured play-based learning, guided play is very much a goal-oriented approach. The child is seen as in the process of *becoming*, and guided play as a means of accelerating their learning to get children *ready* for school, as evident in the comment that guided play '*provides a constrained way for helping children focus on the [academic and cognitive] outcomes of interest*' (p.109).

7.3 Relational versus Outcome Based Pedagogies

When looking to explore the impact of play-based or developmentally more sensitive practice it is important to understand the philosophical underpinnings. Papatheodorou (2010) lucidly explores the philosophical underpinnings of four different curricula and the view of the child and childhood they promote. The four curricula she analyses are *Reggio Emilia*, *Te Whāriki*, the *EYFS* and the *Greek Preschool Curriculum Framework*. These curricula are compared in relation to the concepts of *being*, *belonging* and *becoming*. Philosophically the *being* child is valued for who he or she is in the here and now, the *belonging* child is

viewed as a member of the immediate community and wider society, and the *becoming* child is valued for the adult he or she will become in the future.

Papatheodorou identifies the *Reggio Emilia* curriculum as a relational pedagogy which values children's real life everyday experiences and where the notions of *being*, *belonging* and *becoming* are all interconnected. The *Te Whāriki* curriculum is also considered an example of a holistic and relational curriculum where the notions of *being*, *becoming* and *belonging* are all interconnected. The child is seen as '*a citizen, who is deeply connected with her/his roots and culture and has a sense of identity, belongingness and connectedness* (p.4). The *EYFS* on the other hand, Papatheodorou presents as an example of a curriculum that views the child as a future pupil and citizen, an economic investment for the adult they will *become*. Although the *EYFS* is a play-based curriculum, Papatheodorou uses the *EYFS* as an example of how she sees an outcomes driven curriculum as representative of a utilitarian *schoolification* discourse. Although the *Greek Preschool Curriculum Framework* can also be seen as a more utilitarian curriculum, Papatheodorou suggests that because the curriculum does recognise the child as *being* and *belonging* by valuing children's lived experiences within the family and the community, it is more in line with the *Reggio Emilia* framework than the *EYFS*. Papatheodorou goes on to discuss the core concepts along a continuum, with the *EYFS* at one end and *Reggio Emilia* at the other end; however, presenting *being*, *belonging* and *becoming* as overlapping concepts maybe a more appropriate way of seeing these concepts, as the four curricula, to some degree, address aspects of these three concepts. Papatheodorou concludes with a critique of outcomes-based curricula, and the assessment and evaluation system that is currently promoted in England, as she challenges that this political/economically driven discourse has as yet to produce the desirable outcomes it aspires to.

7.4 Transition to Year 1

A fundamental problem in the readiness discourse in England is the discontinuity between the *EYFS* and the Key Stage 1 curriculum. This is something Fisher (2011) recognises in her paper. She urges that there is a need to re-think children's educational experiences in English early years classrooms, because of the identified discontinuity between the play-based and child-initiated *EYFS* curriculum and the more structured adult-led primary curriculum. Fisher's paper refers to an action research project from one local authority in central England where teachers wanted to explore and develop what they termed '*developmentally appropriate teaching*' (p.34), whilst still meeting government expectations. Although the paper refers more to experiences in the Year 1 classroom, the suggested changes required to move towards more developmentally appropriate, or sensitive practice in Year 1, are equally valid to many formal Reception classes. The suggested changes were in relation to:

- The indoor and outdoor environment;
- The value of play;
- Classroom organization in whole-class versus small group teaching;
- The value of non-participant observations;
- Flexible planning;
- Timetabling.

Fisher points out that the most important point when trying to bridge the two curricula was that staff needed to develop an understanding of, and trust in, how teaching and learning takes place in a play-based, developmentally appropriate classrooms. Although Fisher urges that the positive outcomes from this project need to be treated with caution, the teachers of these older children reported a desire to continue teaching in this more play-based, developmentally appropriate way.

Huf (2013) also reported on how children in her research cooperated submissively or non-conformingly in the process of adapting to school. The purpose of her research was to explore children's agency in the new, more teacher-directed school environment. She describes how in an adult-directed conversational activity with the teacher, the children referred to past experiences to contribute to the activity in a meaningful way and at the same time meet the teacher's expectations. Her comparative research between England and Germany highlighted that although the English *performance model* often limits learning to pre-determined outcomes, some children were creative when trying to collaboratively incorporate their own relevancies into teacher-set tasks. Huf's research highlights how children are active agents, and one way some children brought meaning into their learning. An important factor in being able to adjust well in their new school environment was that they moved up with children they knew. It is interesting to note Huf's proposition that staying in a familiar peer group '*facilitates children's agency of bringing in their own ideas and interests into the new classroom, even if the learning situations become more structured and prescriptive than they were before*' (p.73). This research highlights the importance of a dialogue between the children, parents, settings, and school staff when planning for the composition of Reception year classes, trying where possible to keep friendship groups together to support the settling in to a more formal learning environment.

Einarsdottir *et al.* (2008) discuss the same issue in a slightly older paper about what Icelandic and Australian teachers consider constitutes successful transition to school practices. The US *Teacher Transition Practices* questionnaire (Pianta *et al.*, 1999) was adapted for the study. After describing the two preschool and school systems in Iceland and Australia, they identify 11 more or less common practices that preschools and schools consider successful transition practices, such as preschool children visiting primary schools before school starts, or teachers meeting and/or visiting each other's settings/schools, the exchange of records, sending a letter to the child before school starts and information meetings for parents. Interestingly they make a distinction between what teachers perceived as good practice and what actually happens in reality. Einarsdottir *et al.* discovered that there was often incongruence between beliefs and practice, for a number of practical reasons. Einarsdottir *et al.* rightly state that the value of cross-national studies is not so much the comparative aspect of what is similar or different but that they can '*provide an alternative lens through which each of the countries and systems can be observed*' (p.56), snapshots of practice that can provide inspiration for change. These papers reveal that achieving successful transitions between one school regime and another is a challenge faced in many school systems.

8. Evidence on Desirable Life Long Learning Outcomes for Children of Reception Age

There is an increasing debate about the importance of *non-cognitive* skills such as motivation, perseverance, and self-control, as opposed to cognitive or academic skills, such as literacy and numeracy, in long term attainment. A recent study by Heckman (2011) demonstrated the significant role of *non-cognitive* skills (such as attitudes, motivation and personal characteristics) over and above cognitive skills in shaping labour market outcomes, social behaviour and health. Given this evidence, *non-cognitive* skills are increasingly considered to be as important as, or even more important than, cognitive skills in explaining academic and employment outcomes according to Heckman. Indeed, there is now growing attention from policymakers on how such *character* or *soft* skills can be developed in children and young people. Furthermore, the evidence from this study is suggesting that investing in the development of these non-cognitive factors could yield high returns in future educational and employment outcomes, and help close the attainment gap between advantaged and disadvantaged young people. As Heckman (2011) emphasises, any early education programme seeking to reduce social inequalities between children must focus on the crucial role of skill formation, but that this requires more than basic intellectual skills. He states that just as important are *life skills* such as conscientiousness, perseverance, motivation, sociability, attention, self-regulation and anger management, self-esteem, and the ability to defer gratification. He also notes that the critical period for such skills formation is in the preschool years.

However, it is important to note that discussion of *non-cognitive* skills is complicated and contested. There is little agreement even on whether *non-cognitive* skills is the right way to describe the set of issues under discussion, and terms such as *character skills*, *competencies*, *personality traits*, *soft skills* and *life skills* are also widely used. The term *non-cognitive*, furthermore, highlights an erroneous distinction between cognitive and non-cognitive factors. As Borghans and colleagues note, '*few aspects of human behaviour are devoid of cognition*' (Borghans *et al.*, 2008, p.974). The way that such skills are referred to in the political and policy debate has also evolved. Recently these ideas have taken on the terminology of *character skills* within the mainstream UK political debate. Children need to acquire *character skills*, it is asserted, to complement, and perhaps permit, academic attainment. For example, a previous Secretary of State for Education, Nicky Morgan saw abilities and traits, including resilience and grit, that help young people persevere with setbacks, confidently engage in debates, contribute to the wider community, as '*equally important*' to young people as securing good grades and announced an initiative on *character education* to encourage projects to develop '*the virtues in pupils that are vital to fulfil their potential and realise their aspirations*'. In a more recent speech a Shadow Education Secretary, Tristram Hunt, declared that building skills such as '*resilience, curiosity, self-control and grit*' were as essential as academic achievement when it came to succeeding in life.

There have been several longitudinal studies which have informed the analysis of what child outcomes are associated with long term attainment, including the National Child Development Study, the British Cohort Study and the Millennium Cohort study and which provide data that has been used in the studies detailed below.

8.1 Language and communication skills

Snowling *et al.* (2011) were commissioned by the DfE to review evidence on the link between language and communication and later attainment. Their review revealed that there was considerable evidence to show that language skills are amongst the best predictors of educational success. Consistent with this, findings from a population-based longitudinal study of parents and children in the UK indicate that language development at the age of two years predicts children's performance on entering primary school (Roulstone *et al.*, 2011). They also showed that children who enter school with poorly developed speech and language are at high risk of literacy difficulties and educational underachievement is common in such children. The evidence from the studies in the Snowling *et al.* review reveals that the process of becoming literate begins when children are infants and that language development prior to beginning school serves as the backbone of later literacy development. It indicates that the core of language acquisition occurs between 1 to 4 years (Reception year), with children acquiring much of the necessary basic phonology, syntax, and vocabulary during this time. The rate of vocabulary acquisition at age 3 also has been shown to predict vocabulary knowledge, language development, and reading comprehension at ages 9 to 10 years. The evidence seems to indicate that language and communication acquisition is shaped even before the child enters the Reception year and that effort is needed much earlier if long term attainment is to be realised.

8.2 Social and Emotional Skills

In 2015 Goodman *et al.* conducted a review for the DfE of the evidence on the long-run associations between social and emotional skills in childhood and adult outcomes. This review points to the extensive literature on the predictive importance of skills pertaining to *self-control* and *self-regulation* (such as conscientiousness and good conduct) in childhood for many domains of adult life, including mental health, life satisfaction and wellbeing, income and labour market outcomes, measures of physical health, obesity, smoking, crime and mortality. The review also revealed a significant body of work demonstrating the importance of some types of *self-perception* and *self-awareness*. Beliefs that one's own actions can make a difference – captured by concepts such as *locus of control*, *self-efficacy* – are shown in the literature to be important for a number of adult outcomes, including mental distress, self-rated health, obesity, income and unemployment. The literature also shows that *self-esteem* in childhood is important for mental health and physical health in adult life. *Social skills* have been found to be important primarily as predictors of non-labour market outcomes, in particular mental health and wellbeing, health behaviours, and partnerships in later life. *Emotional wellbeing* (often defined as the absence of internalising problems) has been found to be a powerful predictor of mental wellbeing and socioeconomic outcomes. According to Goodman *et al.*, there is a limited literature linking measures of motivation in childhood to later life outcomes, for example, while there is considerable evidence for the importance of '*intrinsic motivation*' (defined as enjoyment of an activity, such as learning, for its own sake) for positive schooling outcomes there are as yet no studies linking measures of intrinsic motivations captured in childhood to longer term outcomes in adult life. There is some evidence that *academic motivation* defined in a less precise way, and capturing positive attitudes to schooling in several dimensions, is important for labour market outcomes (e.g. social class) and adult health behaviours (e.g. smoking)

later in life. There is however limited evidence to date on the importance in later life of resilience and coping demonstrated in childhood.

8.3 Executive Functioning

Diamond's recent research (2013) proposes a range of *executive functions* which are needed for a child to make progress. The evidence indicates that these aspects of development are more important than IQ or entry level reading or maths (Blair and Diamond 2008). They identify three core *executive functions* which appear to be particularly associated with long term attainment and which are vital for children to develop if the gap in achievement is to be narrowed:

1. Cognitive Flexibility: ability to switch perspectives;
2. Inhibitory Control: ability to stay focused despite distraction, have selective focused attention, stay on task;
3. Working Memory: ability to hold information in mind and mentally working with it, making sense of what unfolds over time, relating events, ideas, learning from before to now, reasoning, cause and effect, remembering multiple instructions in sequence and following step by step in correct order.

This evidence indicates that to support a child to be *school ready* and able to operate as an effective learner, the early years' curriculum needs to focus on both cognitive and non-cognitive aspects of early learning and, importantly, give the child a sense of their own capacity to be a successful learner.

A Swiss study (Roebbers *et al.*, 2014) confirms the importance of *executive functioning* as an important outcome in children's longer term attainment. This study explored children's performance in fine motor skills, *executive functioning* and non-verbal intelligence at the age of 5-6 years to explore how far they might predict early school achievement (in terms of Other studies by Blair and Diamond (2008), Cameron *et al.* (2012) and Grissmer *et al.* (2010) have also reported on fine-motor skills and *executive functioning* as powerful predictors of school *readiness* and of subsequent academic achievement. A large sample of 5 to 6 year olds were followed over three academic years: preschool, kindergarten, first grade) and assessed in terms of intelligence, fine motor skills, and *executive functioning* at the first two measurement points (preschool and kindergarten), and in terms of early school achievement (mathematics, reading and spelling) at the third measurement point (end of children's first grade). In this study only *executive functioning* proved to be a reliable predictor when fine motor skills, non-verbal intelligence and *executive functioning* were integrated in one model. Results from this study suggest that *executive functioning* serves as a common domain-general factor in predicting academic achievement, with a special emphasis on mathematic achievement. The study confirms existing empirical investigations that have repeatedly confirmed *executive functioning* as a driving force for academic achievement.

As Whitebread and Bingham (2014) also point out, contemporary developmental psychology and neuroscience indicates that the basic processes of learning and reasoning are available even from infancy. They argue that during this period what develops is the child's knowledge base and their capacities for metacognition and self-regulation (becoming aware of and in control of their own cognitions, emotions and behaviour). The development of language is central to the whole process; as a symbolic system, and through the channels of

pretend play and the imagination, even very young children can think and reason about experiences and ideas in sophisticated ways. Central to development are the *executive functions* of the brain, which encompass cognitive flexibility, inhibition and working memory, as well as more complex functions such as capacities to problem solve, reason and plan. Self-regulation is the primary characteristic of these higher mental functions, supporting the qualities of creativity, flexibility and self-control, all of which begin to develop during early childhood, qualities which are crucial for success not just in school, but in life.

In short, there is substantial evidence that indicates that the key outcome for the end of the Foundation years, and therefore an important focus of attention during the Reception **year**, is *executive functioning*. Evidence shows that supporting the healthy development of *executive functions* is critical to enable children to succeed in school and beyond. Skills associated with *executive functions* - such as attention control and self-regulation - are also necessary to build healthy and positive relationships with other people. Researchers have found that *executive functions* are important to just about every aspect of life.

8.4 Physical Development

Physical well-being describes how children use their bodies, develop motor control, and understand and exhibit appropriate nutrition, exercise, hygiene and safety practices. It refers to the knowledge that children need to learn to ensure their own health and well-being. There is strong evidence that physical development is associated with educational attainment. For example, Grissmer *et al.* (2010) found that motor skills in early childhood were significant predictors of achievement in reading and mathematics in primary school. Research evidence set out in a Public Health Report by Brooks (2014) brings together a raft of evidence which shows that education and health are closely linked. The report suggests that promoting the health and wellbeing of children has the potential to improve their educational outcomes and their health and wellbeing outcomes. Key points from the evidence indicate that:

- Children with better health and wellbeing are likely to achieve better academically.
- Effective social and emotional competencies are associated with greater health and wellbeing, and better achievement.
- The culture, ethos and environment of a setting or school influences the health and wellbeing of children and their *readiness* to learn.
- A positive association exists between academic attainment and physical activity levels of children.

The *Every Child Matters* agenda promoted outcomes in health and wellbeing and the EYFS recognises the need for children to take increasing responsibility for the management of their own health and well-being, with a recognition that health services must complement the choices and actions of individuals. It is also important to note that while aspects of health and well-being are in the control of individuals, many health outcomes are directly and strongly related to income and income distribution.

9. Reflections on the Evidence

This review has explored and critiqued recent evidence on what constitutes effective pedagogic practice and child outcomes in the Reception year. Reflecting on this evidence has revealed a disturbing landscape of competing and often conflicting narratives, both of which appear to make the claim to be evidence based. This duality of perspectives may explain the current disquiet being expressed about Reception year practice, and some of the tensions and stresses experienced by those at the front line of this practice, the teachers and the children, who may be seen as the ‘squeezed’. Examples of these competing narratives include:

1. Performance *readiness* versus relational *readiness*
2. Play-based learning versus formal instruction
3. Child led versus teacher led pedagogy
4. Improving practice versus inept practice
5. Cognitive versus non-cognitive outcomes

This dissonance is reflected in the statement that:

all sides recognise the importance of a child’s earliest years of education, but differ profoundly in their understanding of how this should be manifest in policy and enacted in practice.

(Neaum, 2016, p.249)

9.1 Emerging themes

However, some clear themes emerge from this evidence which may be helpful in guiding us through this dissonance, as summarised below.

1. Concepts of *school readiness* and *schoolification* are politically generated concepts which are being applied to pedagogy and practice in the Reception year, prior to entry to compulsory schooling. Redefining *readiness* as a more relational and less linear notion, (using the concept of a child *becoming*), and as ecologically located, putting the onus on those around the child (the family and setting) to be ready may allow a more helpful interpretation for current Reception year practice.
2. Current Ofsted evidence indicates that the quality of practice in most Reception classes is good or outstanding and has been steadily improving over recent years. However, research evidence paints a rather different picture, with teachers (and children) being pressured to produce data showing improving child outcomes and a *narrowing of the gap*. This pressure is impacting on Reception year pedagogy, which is becoming more instructional, teacher directed and narrowly focused on literacy and numeracy learning, with a loss of play and more individualised, creative approaches. There is also some indication that less advantaged children may be further disadvantaged by this shift in practice. However, there is evidence of the best Reception year classes managing to *blend* their pedagogy successfully, holding on to the EYFS pedagogic and play-based practice whilst adding in more focused, teacher framed approaches, especially around communication and language. Others are also actively promoting the outdoors as a rich learning space.
3. Robust evidence from two major studies (EPPSE and SEED) support the case for a child-centred, play-based, active and interactive pedagogic approach throughout the Foundation

years, including the Reception year, as leading to enhanced outcomes for children through to secondary schooling, thus affirming the EYFS approach. However, they also point to the importance of ensuring skilled and experienced staff and lower child: adult ratios which can maximize teacher input to enhance children's initiated learning experiences within an open and reflective culture: all pointing to the need for experienced and informed leadership in schools.

4. The evidence makes a strong case for a play-based, relational pedagogic approach in the Reception year as being the most effective for long term attainment and life success for children. It also reveals that this approach may also be highly effective for cognitive as well as non-cognitive aspects of learning, both of which are increasingly acknowledged as being critical for succeeding in life. It also indicates that this approach may be more effective for less advantaged children, who often lack experience of such experiences.

5. The evidence is clear that the most appropriate long term learning outcomes for children of Reception age are those set out as prime areas of learning in the EYFS: Communication and Language, Personal, Social and Emotional Development (including *executive functioning*) and Physical Development.

9.2 Issues and Further Questions

Reviewing the current evidence on Reception year practice, pedagogy and outcomes generates a provocative set of professional challenges which should be used to enrich the dialogue and thinking about effective teaching and learning in the Reception year. Below are a set of issues and questions which are drawn from this research evidence and which we hope can be used to inform and focus a serious debate about how young children in Reception classes might experience learning and teaching at this critical transition point in their educational journey through our school system in England.

Issue 1

The current focus on *school readiness* and the move towards *schoolification* in the Reception year reflect a political shift in philosophy and values in early childhood education. Some evidence argues for a reconceptualisation of these concepts to embrace a more relational and ethical definition, firmly placing the responsibility of *readiness* on the adults and settings involved and not locating it as a developmental problem located in the child.

Question: Is *school readiness* a help or a hindrance in securing progress for all children?

Issue 2

There are competing evidential bases portraying the current state of practice and pedagogy in the Reception year. Ofsted reports indicate an improving and optimistic portrait of practice, especially for disadvantaged children, while other evidence reveals a rather more challenging picture of Reception class teaching and learning. This evidence suggests that Reception classes are preoccupied with enhancing and assessing children's progress towards pre-defined learning goals and responding to the pressures of narrowing the gap targets in children's attainment on exit from EYFS (end of Reception year) with a preoccupation with

the *datafication* of outcomes and this is causing stress and anxiety for Reception teachers and children and is failing children from less advantaged backgrounds.

Question: What is the role and function of assessment in the Reception year and how far does it corrupt current statutory EYFS practice?

Issue 3

The current EYFS supports a play-based pedagogic approach, but increasingly as children move through the Reception year towards Year 1, other more formal and outcome based pedagogic approaches are becoming evident, as pressures mount to ensure children are *school ready* and secure more congruence between Year 1 and Reception year practice. However, the evidence on the value of play-based, more relational approaches for children from 3-6 years in securing long term outcomes in all areas of learning challenges the current direction of travel. Longitudinal studies provide valuable evidence of the pedagogic practices that are associated with positive outcomes in children's learning and attainment but evidence is that these are limited in their implementation by a lack of appropriately trained staff in the sector and misunderstandings about the value of play in securing academic progress.

Question: Can a play-based pedagogy informed by best practice knowledge be successfully achieved in Reception classes?

Issue 4

Emerging developmental and neuroscientific evidence reveals that long-term well-being and academic attainment may be more dependent on children developing *executive functioning* and self-regulation abilities, and exercising autonomy in their learning. Current and proposed child outcomes measures in the Reception year do not reflect this evidence and also may skew practice away from the kinds of pedagogic approaches that support these long term outcomes.

Question: Should *executive functioning* be the key outcome in the Reception year?

Issue 5

Evidence from recent research points to the need to reconceptualise the current outcome driven pedagogy in the early years. A relational *being, belonging* and *becoming* model that respects children for who they are in the here and now, values them as members of the immediate community and wider society, as well as the adult they will become in the future, may be more sensitive to what disadvantaged and vulnerable children in particular need to be ready for and succeed in school.

Question: Would a more relational and ethical interpretation of *readiness* allow more children to succeed?

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