



Position Statement

Say 'no' to baseline assessment

TACTYC opposes the current government plans for standardised baseline assessment to be carried out on young children in their first three weeks of starting school, as the assessments will be unreliable, invalid and harmful to effective early years practice.

Particularly if results are to be used in “high stakes” situations, important questions must be asked. If, for example, the fate of a school may hang on a single set of test results, are the data they generate reliable enough to serve as a measure of the overall quality of that institution? Are they valid in measuring all that is felt to be important in education? Do they ultimately provide information that will help pupils improve? Finally, does the act of placing weight on the results of these tests affect the teaching that takes place in preparation for these assessments and, if there are negative impacts, are we prepared to tolerate them?

Assessment and Reform Group 2009

Introduction

Over the next two years the government is planning a major shift in the assessment of young children, which carries significant risks both for the education and well-being of children in the early years and for their strengths as learners in their futures. TACTYC is strongly opposed to a move toward this form of standardised baseline assessments because this form of assessment would be

- **Unreliable.** Children at such a young age will not show their true abilities in a test taken out of the context of familiar relationships and practical experiences;
- **Invalid.** The tests will be based on narrow checklists of basic skills and knowledge which do not take account of the different ways and rates at which children learn and develop, nor of the ability of children to build conceptual understanding and apply their knowledge. They will not include attitudes and dispositions which research shows are critical to children's later achievement and capacity to learn.
- **Harmful to effective practice and therefore to children's learning and development.** The assessment will result in pressure on practitioners to 'teach to the test', distorting the curriculum and detracting from the rich exploratory, playful, creative, and intellectual experiences which research shows benefit children in the early years;

- **Harmful to the home learning environment.** Parents will be misdirected in terms of the most important markers of their child's progress and attainment, toward supporting narrow measures rather than engaging in the responsive, playful interactions which best support children's well-being and learning.

Background

The Department for Education intends to introduce baseline assessment of children on entry to full-time school, in reception classes for most children at the age of four. Steps are currently being taken to identify a number of nationally approved baseline assessment tests. While use of the commercially produced baseline tests will be optional for schools from September 2015, there will be heavy pressure to institute baseline testing from Ofsted whose inspection judgements will be linked to evidence in this form. The use of the currently statutory Early Years Foundation Stage Profile (EYFSP), which is not a test but a rounded assessment of children's development based on observation over time, is scheduled to become optional from September 2016.

The stated rationale for baseline testing rests in accountability of primary schools, with the baseline purporting to enable schools to show how much progress children have made from their initial starting points by the time they leave the primary years. While any judgement of school effectiveness must clearly take into account the 'value-added' factor based on children's varied starting points, the proposals for baseline assessment are developed from a view of learning dominant in primary education, focussing on only a narrow range of curricular areas tested at that later phase including language, literacy and maths.

Additionally, a stated purpose of the tests will be to hold early years education providers to account for the extent to which they have prepared children for school. The tests will not provide valid evidence towards such judgements and risk distorting early years education as early years practitioners feel driven to drill young children in rote literacy and numeracy skills.

We echo the words of the Assessment and Reform Group (2009) and ask: 'Are the data generated reliable enough to serve as a measure of the overall quality of an institution? Are they valid in measuring all that is felt to be important in education? Do they ultimately provide information that will help pupils improve? Does the weight placed on the results of these tests affect the teaching that takes place in preparation and, if there are negative impacts, are we prepared to tolerate them?'

Baseline tests: the wrong approach for young children

This proposed baseline assessment essentially pushes a view of learning more appropriate for older children downwards into the early years. The statutory school age is the term *following* a child's fifth birthday (earlier than in most other countries), yet in

England children begin their reception year up to a full year before that point. The EYFS is intended to ensure that children receive an appropriate experience, pedagogy and curriculum, and this must be protected. Children entering the reception class have a statutory entitlement to a full year of experience of the Early Years Foundation Stage (EYFS) ahead of entry to Key Stage 1. Arguably, children who do not reach a good level of development at the end of the Foundation Stage should be offered continuing provision in line with the EYFS principles in Year 1.

Assessment approaches in the EYFS, in contrast to a baseline test, are founded in understanding how young children learn and develop. EYFS assessment requires teachers to employ significant skills in observational assessment over time and across contexts, and to involve parents and carers to gain a full picture of the child's learning dispositions, knowledge, understanding and skills. Rather than tracking a few discrete points of knowledge and skills, the breadth of the EYFS assessment recognises the interconnectedness of children's learning and the foundational aspects of the prime areas (personal, social and emotional development; communication and language; physical development) and the characteristics of effective learning (playing and exploring, active learning, creating and thinking critically).

The idea of an 'objective test' has arisen in response to concerns that pressure on schools to demonstrate value added may bring perverse incentives to downgrade children's earlier attainment. It should be borne in mind, however, that English children are the most tested in the world and the attendant stress of being judged is a contributing factor in the low levels of well-being shown by children in the UK in international comparisons (The Children's Society, 2014; UNICEF, 2011).

The first priority when children enter the reception year is to help each child become a settled and confident member of the class. Only when a young child feels safe, secure and able to trust and depend on others will they be able to engage in learning with confidence, competence and curiosity. Teachers are rightly concerned with forming relationships, socialisation and establishing trust, focusing on the prime areas of learning and development, and understanding and supporting each child as an individual. Testing children at this time would undermine the settling-in process, and cause unnecessary stress for children, worry for their parents and unacceptable pressure for their teachers, diverting teachers' time away from the essential task of helping children to settle happily in their new classroom environment.

Standardised tests will necessarily be conducted on a one-to-one basis according to a set routine, with children individually withdrawn from the group. This procedure would be highly disruptive to attempts to establish a sense of community in the class, and occupy the teacher who needs instead to be aware of and responsive to all children in the class in order to build relationships of trust on which young children's learning depends. For the child the test may be a very uncomfortable experience. However dressed up as 'developmentally appropriate' and 'motivating', the test activities will require the child to

participate in an adult-dictated sequence, far removed from the reciprocal interactions in an informal atmosphere with familiar and trusted adults that enable a child to relax and participate freely to the best of his/her ability.

Such tests are not in line with current thinking and practice internationally, e.g. in a review of international research on early years assessment, the National Council for Curriculum and Assessment (NCCA), Ireland, stated that relationships are central to such assessments and that they should be authentic.

‘Assessment of early learning and development is informal, carried out over time, and in the context of the child’s interactions with materials, objects and other people. It is most effective when it is authentic in the sense that it takes place in real-life contexts where it is embedded in tasks that children see as significant, meaningful and worthwhile. Play is a key part of children’s learning and development and thus an important part of the assessment process. Informal assessments, carried out as children engage in experiences they see as relevant and meaningful, are likely to produce the best and most comprehensive picture of early learning and development.’ (NCCA ,2008, p.4).

Unreliable

Baseline tests will provide unreliable measures of children’s starting points. Research has established that testing at the beginning of the reception year when children are adjusting to the inevitable changes in this major transition leads to highly variable and often depressed results.

The inappropriate context of the assessment for such young children will mean that many children at the start of the reception year, particularly the youngest and children with no previous experience of being in a class or school (e.g. the child who has been placed with a childminder, informal pre-school or day nursery with a small group of other children) are highly unlikely to be able to show the full extent of their capabilities to a teacher with whom they have not yet formed a confident, secure relationship.

Such very early assessment runs the risk of labelling particularly vulnerable children, such as summer-born children or children born prematurely, as ‘failing’ from the moment they begin formal schooling. They are not failing; they are merely at different stages in their development or are not settled enough in the classroom to disclose their own potential and knowledge. Children with English as an Additional Language (EAL) will also be unable to show their knowledge in a structured test which is reliant on fluency in English.

A further source of unreliability in results will be introduced in those tests which are computer-based, as these will also present a hurdle for children who are relatively unfamiliar with ICT. The ‘right/wrong’ options in scoring in a computer test cannot match an experienced practitioner’s assessment informed by an understanding of what children

can do and understand as demonstrated in their widely varied behaviour and responses within practical play and learning situations.

Invalid

Any measure is only useful if the instrument of measurement is reliable and it measures the right things, and baseline assessment does not meet that criterion. The narrow range of knowledge and skills it covers is not predictive of children's later progress. The DfE baseline criteria currently states 'the majority of the content domain must be clearly linked to the learning and development requirements of the communication and language, literacy and mathematics areas of learning from the EYFS'. While these are important, they are not sufficient as indicators of long-term learning and development.

There are two key issues here: What is predictive of attainment in the primary years, and what elements support longer term success in education and life?

Predicting success in the 3 R's

Schools' accountability lies in children's progress in the tested areas of reading, writing, and mathematics. It may seem obvious that testing what children know in these areas at age 4 and measuring the achievement by a specified end point will be a good measure of how well the primary school has performed. However, this simplistic view of children's learning is in error.

- The baseline tests will reflect aspects of children's previous experience rather than their capacity to learn in the period ahead. Just because a child has been 'schooled' in letters and numbers in the preschool period, for example, does not mean that he or she will become a more able reader than another child who has not yet had that instruction but may very readily master these areas when they are introduced.
- Commercially available assessments are typically checklists of skills and knowledge, which do not take account of the different ways and rates at which children learn and develop, nor of the ability of children to build conceptual understanding and apply their knowledge. An easily administered test is likely to consider skills that can easily be quantified – but which do not count as significant factors in the overall picture of a child's individual learning and development.
- It is not valid to attempt to extrapolate progress expectations in a linear fashion from the early years to the end of Key Stage 2.
 - Reading, for example, involves much more than just decoding letters, but depends on a broad base of comprehension and knowledge of language, vocabulary, and rich experiences of language and books. Oral language, built through imaginative play and discussion of ideas and life experience, underpins later reading and writing ability. A simple test of letter or word recognition is in no way predictive of later attainment in reading or in English.
 - Similarly, later maths attainment rests on a basis of understanding properties of shape and space built in block play, using symbols such as graphics used in

role play, problem-solving in play and practical activities, and so on (Carruthers and Worthington 2006; Worthington and van Oers 2016; Worthington and van Oers *submitted*). Attempting to capture outcomes of this complex learning process by matching numerals to a set of objects on a computer screen is simply not appropriate. Young children need to develop their cultural knowledge of mathematics and the social and cultural uses of mathematical signs, symbols and texts (as they should do with writing), and this is best developed through play and real life activities rather than through formal tasks presented outside of meaningful context for the child. Studies show that an emphasis on teacher-directed early maths training hinders rather than promotes later maths learning (Alhberg 2001; Pramling Samuelsson and Maruizson 1997).

- There is considerable evidence that the development of young children's well-being and attributes as early learners, such as curiosity, motivation, perseverance and independent thinking, are far more important and reliable predictors of later academic achievement. Children in Finland, for example, begin formal schooling up to three years later than in England, following active, play-based provision in their early years; they go on to out-perform British children in later attainment (Bodrova, *et al.* 2007; Ryan and Deci, 2000).
- While early gains in narrow skills involved in literacy and maths can be achieved through early training, these advantages are lost within a few years; this is likely to be attributed to a focus on teaching these skills to the exclusion of wider understanding of the social and cultural basis of literacy and mathematics, explored in meaningful contexts such as pretend play. Children whose experience in the early years has instead supported emotional well-being, cognitive development and self-regulation during play may score less well on early academic tests, but evidence indicates that these children show higher achievement benefits in the longer term (Goswami and Bryant, 2007). Such preschool provision, however, which has supported broader development rather than narrow early academic skills drilling, may be judged to be 'failing' children if only those narrow academic skills are assessed. This risks skewing practice away from what is known to be more effective for children's learning in the long term.

Predicting future success – learners for life

Judging schools' effectiveness solely by short-term academic results does a disservice to children's futures; it would be doubly unfortunate for this blinkered view to be pushed downward into the early years. An easily administered test is likely to consider skills that can easily be quantified – but which do not count as the most significant factors in the picture of a child's learning and development. It reduces the education to counting what is countable rather than what matters.

Many of the effects of educational experiences on children's outcomes will be seen well into the future, and often will not be directly measurable in the short term. There is a danger of reducing accountability to factors in a child's development which are easily

quantified, but which research demonstrates are less important in eventual outcomes than factors such as resilience, motivation, creativity and emotional well-being. The desire for accountability will fail children if it depends on taking the measure of less important factors, and making the judgements of impact too soon.

The All Party Parliamentary Group on Social Mobility recently published a 'Character and Resilience Manifesto' describing the key elements in closing the attainment gap as 'a belief in one's ability to achieve, an understanding of the relationship between effort and reward, the patience to pursue long-term goals, the perseverance to stick with the task at hand, and the ability to bounce back from life's inevitable setbacks'. The importance of these elements was confirmed in a recent longitudinal study showing that long-term academic success was predicted most strongly by the ability to maintain attention at age four, and this was not significantly mediated by reading skills at age seven.

Healthy physical development, the development of self-esteem, warm relationships, rich language and communication skills as well as the development of problem-solving and creativity would be important indicators of foundations for long term development, rather than solely focusing on more easily quantified measures, such as recognition of numerals or letters. How a child deals with challenge, makes relationships, concentrates, persists, has confidence to take risks, and loves learning cannot be shown in a standardised test – nor will they be apparent in the early days in a new situation and new relationships at the beginning of the reception year.

Undermining effective early years practice

A test or examination should focus on what matters in the curriculum, rather than simply what is easy to measure. If the test is not measuring what matters in the curriculum, important untested aspects are likely to be downplayed in teaching.

Assessment and Reform Group 2009

A baseline assessment with its focus on a narrow range of knowledge and skills is likely to lead to a narrow range of experiences for children at even earlier ages. Practitioners in nurseries and preschools will be under pressure to demonstrate that their children are 'ready for school' and so may 'teach to the test'. Reception teachers will be expected to show progress in these narrow measures within children's final year of the EYFS. In consequence, children would be increasingly subjected to inappropriate and unnecessary formal teaching that would detract from the rich exploratory, playful, creative, and intellectual experiences which we know from research benefit children in the early years (Moyles, 2015).

In this paper, we have reviewed the now extensive evidence that the curriculum-centred approach (...) and the idea that rushing young children into formal learning of literacy, mathematics etc. as young as possible is misguided. This leads to a situation where children's basic emotional and cognitive needs for autonomy, competence and relatedness, and the opportunity to develop their metacognitive and self-regulation skills, are not being met.

Whitebread and Bingham,
TACTYC Occasional Paper 2

Research provides clear messages about practices which best support effective learners, in early childhood and for their futures. The central issue is that the critical attributes of being a confident, resilient learner cannot be directly taught; they must be learned through consistent experiences which enable children to use the characteristics of effective learners. In the early years play and playful experiences offer the richest context for children to meet challenges, take risks, make decisions, solve problems, re-group and bounce back when intentions are not met, build concentration and intrinsic motivation, and think creatively and critically. Alongside secure attachments with key adults, playful interactions are also the context in which children experience and learn about the emotions and perspectives of themselves and others which underpin their progress through life.

Skilful adults who focus on supporting and encouraging children's well-being and capacities as self-regulating learners are essential. Effective support for character and resilience cannot be provided through a narrow focus on curricular targets, but requires the knowledge and understanding of expert practitioners who can establish the conditions for children's growth and respond optimally to individual children moment to moment. These will include rich play and other meaningful learning contexts where children are making choices, solving real problems, and engaging in stretching conversations about their thoughts, feelings, and activities.

Undermining home learning environments

A baseline test intended to support accountability for schools would have ramifications far beyond its use as a data set, and not least of these are the messages that would be given to parents. Parents receiving reports of their child's results may interpret these measures to be the essential markers of their child's progress and predictors of later attainment. This will in turn have an impact on parents' expectations of their child, confidence in the educational system, and understanding of their own significant role in their child's learning.

Early years settings often report that parents are concerned about whether their child is learning what is required to successfully make the transition into school. Partnership discussions between parents and professionals include helping parents to understand how children learn through play, and to recognise the kind of activities and conversations at home that will best benefit their child. Parents who engage with their child in a contingent, supportive and stimulating way in play and real life activities have a profound and lasting positive influence on their child's learning and development (National Literacy Trust, 2001). On the other hand, a strongly directive approach to learning can limit children's confidence and motivation and suppress self-regulation and metacognition. There is a danger that rather than feeling confident to support the unfolding of early literacy and numeracy learning within rich parent-child interactions, parents will feel that they should buy into the narrow skills agenda and push formal learning at home. This risks demotivating children.

A better way forward

From September 2016 schools will have the option of continuing to use the EYFS Profile which will no longer be statutory, and also the option of using one of a number of approved baseline tests. This will lead to an unnecessary diversification of approaches and a move towards unsuitable testing regimes.

Given the negative aspects of employing a baseline test, a far better option would be to maintain use of the EYFS Profile which can form part of a data set for accountability throughout the EYFS and the primary years.

What matters is that data collected should be relevant, and that the process should not distort the breadth and balance of the curriculum. There should be a continuing focus on the prime areas of learning, which remain relevant throughout children's school careers. Summative assessment will be most reliable when based on formative observational assessments over time and across contexts, by practitioners and parents who know the child well.

Most schools already make a summative assessment within the first term of school, to provide information for their planning. This is usually based on the EYFS, with reference to *Development Matters in the Early Years Foundation Stage* (part of which is labelled 'Early Years Outcomes' by the DfE). Most schools already have developed tracking systems to understand children's progress, whether from earlier points in the EYFS for those schools with nursery provision or from the start of the reception year. Teachers already track their pupils' progress termly in relation to the EYFS, differentiating their teaching and approaches to ensure that the children succeed to the best of their abilities and levels of development.

The EYFS Profile continues the approach widely employed in early years settings, using the age-stage bands of *Development Matters in the EYFS* to provide best-fit guidance on whether children's learning and development is typical for their age.

This approach has several advantages over a baseline test, in that the assessment:

- is developed from on-going observational assessment across contexts and over time;
- is contributed to by parents and others who know the child well;
- reflects a child's responses to challenges and embedded skills and knowledge which the child uses independently in a range of situations;
- is holistic in focusing on prime areas (personal, social and emotional development; communication and language; physical development) as well as the specific areas (literacy; mathematics; knowledge of the world; expressive arts and design) and the characteristics of effective learning (playing and exploring, active learning, creating and thinking critically) – therefore building an accurate and useful picture of a child's abilities, interests, dispositions and ways of learning.

Data and accountability

Rather than lose accountability for effectiveness of EYFS provision through adopting a baseline assessment, it is crucial for monitoring effective responses to the two-year-old progress check and impact of the Early Years Pupil Premium that a seamless continuum of principled early years assessment is in place. The broader, best-fit approach to summative assessment can be used very effectively to provide reliable data on children's progress from their starting points, throughout the EYFS and beyond.

Children of any age can be judged to be demonstrating typical levels of learning and development, ahead of their peer group, or at risk of falling behind their peers. This can be tracked throughout a child's time in a setting and lead into the EYFS Profile. The information can be considered at an individual level, and also as a cohort, and can continue to be monitored in this way throughout the primary years. Where a school is very effective in supporting children's progress, the proportion of children falling behind or the degree of delay will be seen to decrease.

While the EYFS Profile represents principled assessment practice, there remain concerns over the level of some of the descriptors which children are expected to meet in order to be considered at a 'Good Level of Development'. Specifically, the literacy and number Early Learning Goals are currently set at an inappropriate and unnecessarily taxing level for children of this age, with the attendant risk of distorting early years teaching in order for children to reach them. A review of these goals and the definition of 'Good Level of Development' would enable more useful data to be generated.

The timing of the assessment is also an issue. As already described, schools do form summative judgements from formative data within a child's first term in school and this can be used as a record of children's starting points. In order to consider the effectiveness of school provision in the primary years following the EYFS, however, a summative judgement should be based not within but at the end of the EYFS.

TACTYC urges consideration of a national data set based on completion of the Early Years Foundation Stage Profile *in the term in which children reach statutory school age*, i.e. the term *after* they reach five years of age. Within the reception year, autumn born children would be assessed in the January and spring born children in the summer term. Summer born children would not be assessed until later in the autumn term when they enter Year 1. This would result in more equitable and accurate judgements at a coherent stage of primary education. This would also support better transitions into Key Stage 1 as Year 1 teachers would be familiar with the Profile, and thus better informed about the pupils that enter their class from the reception year.

Beyond data

Hard numerical evidence of children's progress can shed useful light on effectiveness judgements of a school or early years setting. It is not, however, sufficient, and

attainment data alone should not determine judgements of school quality. The time span is too short for the impact of many aspects of children's developing capacities to be revealed.

There is a tension between assessment systems designed to

1. test cohort level attainment against standardised criteria
2. reveal and feedback on individual children's developmental and learning with the aim of supporting further learning and development.

The key stated purpose of the proposed baseline assessment is to achieve aim 1, but it will also be used as if it meets the needs of 2. We are clear that it will not achieve aim 1 adequately, while its use for aim 2 is likely to be particularly harmful.

It would be particularly unfortunate if the data-driven judgements applied to a school as a whole are driven downwards to confine the experiences of the youngest children and pedagogy within the EYFS. There are currently separate Ofsted evaluation approaches for the EYFS in private, voluntary and independent (PVI) settings compared to those in schools – and the PVI inspectors are operating under a framework more appropriate for the early years. Data does not drive the judgement, but rather:

'The main evidence comes from inspectors' direct observations of the way in which children demonstrate the key characteristics of effective learning:

- playing and exploring
- active learning
- creating and thinking critically

and their evaluation of how practitioners' teaching facilitates children's learning.

Direct observation should be supplemented by a range of other evidence to enable inspectors to evaluate the impact that practitioners have on the progress children make in their learning. Such additional evidence should include:

- evidence of assessment that includes the progress of different groups of children:
 - assessment on entry, including parental contributions
 - two-year-old progress checks (where applicable)
 - on-going (formative) assessments, including any parental contributions
 - the Early Years Foundation Stage Profile (where applicable) or any other summative assessment when children leave
- evidence of planning for children's next stages of learning based on staff assessment and a secure knowledge of the key characteristics of learning and children's development

*Evaluation Schedule for Inspections of Registered Early Years Provision, Ofsted
September 2014*

Accountability of schools and early years settings is an important matter. Services are accountable for using public funds effectively, and they are also accountable to their communities, to families, and most importantly to the children they serve. Assessment practices must be appropriate and embedded within a pedagogy that best reflects that responsibility.

Recommendations

- All summative assessment approaches in the EYFS should be appropriate to such young children, based on formative observational assessment across contexts including play and children's self-initiated activities, over time, carried out by people the children know well, and including parents' perspectives.
- Summative assessment should include the prime areas of personal, social and emotional development; communication and language; and physical development.
- Summative and formative assessments should reflect the ways children learn, motivation, self-regulation and resilience such as through reference to the EYFS characteristics of effective learning.
- Schools should develop data tracking systems based on holistic, principled formative and summative assessment rather than standardised baseline tests.
- Ofsted should develop inspection systems that take account of a wider range of evidence of school effectiveness.
- The Early Learning Goals, particularly for literacy and mathematics, should urgently be reviewed.
- The definition of 'Good Level of Development' should be reviewed.
- A national data set should be developed based on an EYFS Profile completed in the term in which children reach statutory school age, i.e. the term after they reach five years of age.
- Children who do not reach a good level of development as measured by the EYFS Profile should continue to benefit from the approach to curriculum and pedagogy required in the EYFS.
- A system designed purely to test cohort or school level attainment should not be used for individual feedback on a child's learning and development. Instead, an approach which can reconcile the two purposes for assessment is needed.

Ahlberg, A. and H. Lenz Taguchi. 2005. *Listening as Pedagogical Tool: Ethics and Democracy in Education Work*. Stockholm: Liber.

Bodrova, E., & Leong, D. J. (2007) *Tools of the mind: The Vygotskian approach to early childhood education (2nd Ed)*. Upper Saddle River, NJ: Prentice-Hall.

Carruthers, E. & Worthington, M. (Second Edition, August 2006) (Second Edition). *Children's Mathematics: Making marks, making meaning*. London: Sage Publications.

Goswami, U. and Bryant, P. (2007) *Children's Cognitive Development and Learning (Primary Review Research Survey 2/1a)*, Cambridge: University of Cambridge Faculty of Education.

Literacy Trust (2001) *Achievement: The research evidence and the way forward*. Available online at:

http://www.literacytrust.org.uk/assets/0000/0423/Parental_involvement_2001.pdf

Mansell, W., James, M. & the Assessment Reform Group (2009) *Assessment in schools. Fit for purpose? A Commentary by the Teaching and Learning Research Programme*. London: Economic and Social Research Council, Teaching and Learning Research Programme.

McLelland, M.M., Acock, A., Piccinin, A., Rhea, S.A., Stallingsal, M. (2013) 'Relations between preschool attention span-persistence and age 25 educational outcomes', *Early Childhood Research Quarterly*, Volume 28, Issue 2, 2nd Quarter 2013, Pages 314–324.

Moyles, J. (2015) *The Excellence of Play (4edn)*. Maidenhead: Open University Press/McGraw Hill.

National Council for Curriculum and Assessment (2008, p.4) *Aistear: The Early Childhood Curriculum Framework; Supporting early learning and development through formative assessment, Executive summary*. Dublin, Ireland: NCCA

National Literacy Trust (Robin Close) (2001) *Parental Involvement and Literacy*. London: NLT.

Pramling Samuelson, I., and U. aurit'on. 1997. *To Learn as Six Year Old – A Systematic Review*. Stockholm: Swedish National Agency for Education.

Ryan, R. M. and Deci, E. L. (2000) Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55, p.68–78.

Schweinhart, L. J., & Weikart, D. P. (1997). *Lasting differences: The HighScope Preschool Curriculum Comparison study through age 23* (Monographs of the HighScope Educational Research Foundation, 12). Ypsilanti, MI: HighScope Press.

Suggate et al 2012 ; CfBt (2010) *Effective early childhood education programmes: a best-evidence synthesis*. Available online at:

<http://cfbt.hs.llnwd.net/e1/~media/cfbtcorporate/files/research/2010/r-early-childhood-programmes-synthesis-2010.pdf> (accessed 12 September, 2014).

TLRP/ESRC (2011) Assessment in schools: Fit for purpose? A Commentary by the Teaching and Learning Research Programme. Available online at: <http://www.tlrp.org/pub/documents/assessment.pdf> (accessed 12 September, 2014).

UNICEF (2011) *Child Well-Being in the UK, Spain and Sweden*. Paris: UNICEF.

Whitebread, D., and Sue Bingham (2012) TACTYC's Occasional Paper No. 2: *School Readiness; a critical review of perspectives and evidence*, <http://tactyc.org.uk/occasional-paper/occasional-paper2.pdsf>.

Worthington, M. and van Oers, B. (2016) Pretend play and the cultural foundations of mathematics. *European Early Childhood Education Research Journal* 24 (3). *Accepted*.

Worthington, M. and van Oers, B. Children's social literacy practices and the emergence of graphic symbols in pretence. *Submitted*.