

## Education Committee

### DfE use of Evidence

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#### **Too Much Too Soon: Reflections upon the school starting age**

##### **Dr. David Whitebread and Dr Pam Jarvis**

There is much current debate in the UK and elsewhere about the timing of the transition for young children between and the start of 'formal' schooling. When are children 'ready' for school? First of all, we need to deconstruct what 'school' means. Are we talking about a regime of formal instruction or a more broad-based approach to learning, including play-based pre-school provision? The current government have clearly indicated that their concept of 'school' falls very much into the former category; for example in September 2013, the then Minister for Children, Elizabeth Truss 'said she had "seen too many chaotic settings, where children are running around....We want children to learn to listen to a teacher, learn to respect an instruction, so that they are ready for school' (Williams 2013, online). The Guardian additionally reported that '[Secretary of State for Education] Gove's staff.... said allowing children to play instead of learn was an "excuse for not teaching poor children how to add up"' (The Guardian September 2013 online).

Over the past thirty years, successive governments have overseen an education policy which has moved towards an earlier and earlier start to formal instruction, and an erosion of learning through play. In September 2013, a letter signed by over 100 early childhood education experts published in the Daily Telegraph (2013, online) called for this policy to be reviewed. However the reply from the DfE proposed that such concerns were 'misguided' and that 'earlier is better', particularly for children from disadvantaged backgrounds; an assertion that is entirely unsupported by the body of research. In fact, evidence from international comparisons and psychological research of young children's development as learners indicates that a slow trajectory into formal education, with the early years period being spent in child-led play based learning produces better results. For example a PISA comparison of the literacy levels of children in their mid-teens in a variety of nations (PISA 2009) indicated that the children from nations where formal education begins at the age of seven show the most advanced literacy skills, and that those from nations where formal education begins at the age of six also out-perform British children.

Children in England currently are admitted into Reception classes in Primary schools in the September following their fourth birthday. This means that some of these children will be sitting at school desks only weeks after celebrating their fourth birthdays. The most common school starting age in Europe as a whole is six, with a minority (for example, Finland) having a school starting age of seven. The Scandinavian countries also tend to have a more relaxed transition into school from the early years environment (Bedard and Dhuey 2006).

Additionally, English early years education revolves around regular, detailed assessments of children's skills. The national inspection body, the Office for Standards in Education, Children's Services and Skills [OFSTED] closely scrutinises early years settings for the perceived ability to structure children's moment-to-moment activities to inculcate 'school readiness', rather than to promote play-based/discovery learning opportunities with 'open' agendas. A statutory framework, *The*

*Early Years Foundation Stage* (DCSF 2007), containing directions for the care and education of children aged between birth and five was published in 2007, alongside a meticulous set of standards against which children were to be assessed by practitioners. This was subsequently renewed and updated in 2012 by a Conservative/Liberal Democrat coalition government (DfE, 2012).

The Early Years Foundation Stage proposes that for children aged birth to five 'each area of learning and development must be implemented through planned, purposeful play' (DfE, 2012, p. 6), but this needs to be very carefully interpreted if we are to avoid adults manipulating children's activities to achieve pre-determined results:

It is not *whether* a child is ready to learn, but *what* a child is ready to learn... The model of 'readiness for school' is attractive to governments as it seemingly delivers children into primary school ready to conform to classroom procedures and even able to perform basic reading and writing skills. However, 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' (Whitebread and Bingham 2011, pp. 2–3)

Most importantly, there is no research evidence to support the 'earlier is better' view. On the contrary, a large body of evidence clearly indicates the crucial importance of child-led free play in young children's development. Pellegrini (1991) carried out a longitudinal observational study of children's rough and tumble play in which he observed that the amount of time five-and-a-half-year old boys spent in rough and tumble play directly predicted their level of success in social problem solving one year later. The evidence for the requirement for play-based learning in early-mid childhood is distributed widely across anthropological (Gray, 2009, 2012), evolutionary (Bruner, 1976), neuroscientific (Gordon et al., 2003), psychological and educational studies. Human infants are born at a very early stage in their neuronal development and subsequently need to build a vast number of neuronal connections. Pellegrini, Dupuis & Smith, (2007) propose that play is an important evolved adaptation.

The complexity and independence of human free play, which involves the practice not only of physical skills, but also symbolic interaction; most importantly spoken language, enabled humans to become powerful learners and problem-solvers. Neuroscientific studies have supported this view of play as a central mechanism in learning; for example Pellis & Pellis (2009), produced a review of a number of research findings indicating that playful activity leads to synaptic growth, particularly in the frontal cortex, the part of the brain responsible for all the human higher mental functions. In a later article they concluded:

A growing body of experimental evidence with laboratory animals suggests that banning rough and tumble play may be counter-productive. Rough and tumble play appears to provide young animals the opportunity to finely tune their behaviour in a contextually relevant manner with peers and so modify the brain mechanisms that underpin social skills

(Pellis and Pellis, 2012, p. 1).

Bjorklund and Pellegrini proposed that over 30 possible functions of play in learning had been listed within the body of research available (2000, p. 1693). Jarvis et al (2014, p.54) posited that, consequently, '*homo sapiens* (the man who knows) can only fully develop through *homo ludens*' (which translates to the man who plays; Hunzinger 1949). These authors go on to propose that the human ability to develop and share meanings can only fully develop:

From organic social interactions in which children freely respond to partners with whom they are flexibly and authentically engaged in activity and related conversation; in early-mid childhood, this is most naturally accomplished in collaborative free play with peers, taking equal responsibility for the development of narratives. .... Adult support for children to sustain such interactions is certainly helpful, but adult direction which introduces concepts at too early a stage in development for children to grasp at a level where they can explore them in supplementary peer-generated narrative is not.

(Jarvis et al 2014, p.56)

A range of experimental psychology studies have clearly indicated the superior learning and motivation arising from playful as opposed to instructional approaches to learning in children (Whitebread & Jameson, 2010). There are two crucial processes which underpin this relationship: firstly, playful activity has been shown to support children's early development of representational skills fundamental to language use. Christie & Roskos (2006), for example, reviewed evidence that a playful approach to language learning, as opposed to formal instruction, offers the most powerful support for the early development of phonological and literacy skills. Secondly, through all kinds of physical, constructional and social play, children develop their skills of intellectual and emotional 'self-regulation' (Ponitz, McClelland, Matthews and Morrison, 2009) which have been clearly demonstrated to be the key predictors of educational achievement and a range of other positive life outcomes (Whitebread, 2010).

Within educational research, a number of longitudinal studies have provided evidence of long-term outcomes. Marcon (2002), for example, demonstrated that, by the end of their sixth year in school, children whose pre-school model had been academically-directed achieved significantly lower marks in comparison to children who had attended child-initiated, play-based pre-school programmes.

Other studies have specifically addressed the issue of the length of pre-school play-based experience and the age at which children begin to be formally taught the skills of literacy and numeracy. In a longitudinal study of 3,000 children funded by the DfE themselves, Sylva et al (2004) showed that an extended period of high quality, play-based pre-school education made a significant difference to academic learning and well-being through the primary school years, with a particular advantage being conferred on children from disadvantaged backgrounds. Studies in New Zealand comparing children who began formal literacy instruction at age 5 or age 7 have shown that by the age of 11 there was no difference in reading ability level between the two groups, but the children who started at 5 developed less positive attitudes to reading, and showed poorer text comprehension than those children who had started later (Suggate, Schaughency & Reese, 2012).

Once the goal of 'readiness' is set in any early education policy, the play-based teaching and learning practices traditionally offered within statutory education for children under seven tends to become gradually replaced by an academic preschool curriculum. The practice of transmission teaching 'to test' within such regimes, where the material to be taught is broken down into specific objectives, funnelling down into a set of highly defined outcomes, sometimes referred to by teachers as 'WILF' [What I am Looking For] drastically reduces opportunities for children to contribute to the collaborative construction of original shared narratives (see Jarvis, 2009; Layard and Dunn, 2009; Santer, Griffiths, and Goodsall, 2007; Bishop and Curtis, 2001; Reay and Wiliam, 1999). McNess, Broadfoot, and Osborn (2003) concluded that, within English education,

A growing policy emphasis on accountability, and the need to raise school standards ... [resulted in] ... a performance-oriented, transmission model of learning [being]... given preference over a sociocultural model which recognised and included the emotional and social aspects (pp. 245–246).

This evidence, directly addressing the consequences of the introduction of early formal schooling, combined with the evidence on the positive impact of extended playful experiences, raises important and serious questions concerning the direction of travel of early childhood education policy currently in England. There is an equally substantial body of evidence, which there is not room to address here, concerning the worrying increase in stress and mental health problems among children in England and other countries where early childhood education is being 'schoolified' (Gray, 2011), and suggesting strong links with loss of playful experiences and increased achievement pressures. In the interests of children's educational achievements and their emotional well-being, the UK government should take this evidence seriously.

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