

Journal of Trainee Teacher Education Research

“She can’t learn while playing in sand!”: Reception and year 2 pupils’ perspectives on the relationship between play and learning.

Rachel L. Evans

(General Primary PGCE, 2014-15)

email: rle27@cantab.net

Abstract

Relatively few studies have investigated children’s own perceptions of play in school (Howard, 2002). It was this issue which the present study sought to address this by analysing how much of their classroom experiences children categorised as ‘play’, how much was ‘learning’, and the amount of overlap between these two categories. Children from a reception and a year 2 class were interviewed to this end. It was additionally assessed whether pupils’ views varied with age and the transition from the Early Years Foundation Stage (EYFS) into more formal learning in the National Curriculum Key Stage 1. Bernstein’s theory of ‘classification’ and ‘framing’ was used as a lens through which to analyse data.

© Rachel L. Evans, 2016

“She can’t learn while playing in sand!”: Reception and year 2 pupils’ perspectives on the relationship between play and learning.

Rachel L. Evans

Introduction

There is currently a large body of research on young children’s play and its potential impacts on their learning and development (Fromberg, 1999). As a result, classroom practitioners generally view play as valuable (McInnes & Birdsey, 2013) and play-based pedagogies are recommended for young children in educational settings (BERA, 2014; DfE, 2014). However, fewer studies have investigated children’s own perceptions of play and whether pupils themselves acknowledge the utility of their play (Howard, 2002). It was this issue which the present study sought to address by analysing how much of their classroom experiences children categorised as ‘play’, how much was ‘learning’, and the amount of overlap between these two categories. Children from a reception and a year 2 class were interviewed to this end. It was additionally assessed whether pupils’ views varied with age and the transition from the Early Years Foundation Stage (EYFS) into more formal learning in the National Curriculum Key Stage 1. The questions the study attempted to answer were thus ‘do children’s perceptions of ‘play’ and ‘learning’ allow for an overlap between these two categories, and do these perspectives change between reception and year 2?’ Bernstein’s theory of ‘classification’ and ‘framing’ was used as a lens through which to analyse data.

Literature review

Play’s importance to young children’s cognitive development is established within academic and professional fields (BERA, 2003; BERA 2014; Fromberg, 1999; McInnes & Birdsey, 2013;

McInnes, Howard, Miles & Crowley, 2011; Rogers & Evans, 2008; Rubin, Fein & Vandenberg, 1983). Pretend and symbolic play seem unique to humans and appear culturally universal, suggesting that they are reflective of humans' singular cognitive and communicative capabilities and form an innate part of our development (Lillard, Pinkham & Smith, 2011; Power, 2000). Piaget was among the first to remark upon children's symbolic play and note its synchronous development with the spurt in language acquisition observable in infants between 18 months and 2 years. He hypothesised that a maturational development of abstract thought facilitated the two advances, both of which require the child's ability "to invoke objects which are not present perceptually" (Piaget, 1984, p.34). Indeed, research has shown that children with Autistic Spectrum Disorder have reduced understanding for words' and pictures' symbolic meanings with correlated language and social developmental delays (Preissler, 2006). Additionally, a number of studies demonstrate correlations between language ability and play complexity, including its degree of symbolic representation (Corrigan, 1982; Power, 2000).

Later, however, Vygotsky proposed an alternative theory, now more commonly accepted (BERA, 2003), suggesting a line of causation between play and language development, in that children acquire symbolic understanding through play which they can then manipulate in language (Vygotsky, 1978). Vygotsky thought that objects used by children playing to represent other items (such as a broom a child rides as a horse) are 'pivots' or aids in an intermediary stage before the child starts to adopt purely cognitive representations (ibid.). In Vygotsky's wider theory of how children develop cognitive abilities through social interactions and scaffolding, play thus forms a crucial part of the process by which language may become symbolic and abstracted to facilitate this learning of higher cognitive processes (Berk & Winsler, 1995). Indeed, research suggests that children exposed to play conditions produce linguistically superior and more original writing (Whitebread & Jameson, 2010).

Play may also have a more direct influence on language development since pretend play contexts promote the use of complex 'decontextualized' language (Nicolopoulou, McDowell & Brockmeyer, 2006). As Bruner once remarked, "the most complicated grammatical and pragmatic forms of the language appear first in play activity" (Bruner, 1983, p.65). Playing children actually correct each other's use of language (Berk & Winsler, 1995) and playing has multiple requirements for complex speech including clarifying the game's situation, settling disputes, establishing rules and persuading peers to collaborate (Berk & Winsler, 1995; Smilansky, 1968). Even early parallel play in very

young children can facilitate initial peer social interactions (Mueller & Brenner, 1977). In fact, some studies show that make-believe play fosters verbal intelligence as effectively as specific skills training (Christie, 1983).

Language is not the only developmental and cognitive capacity to benefit from children's play. Despite some, perhaps inevitable, criticism surrounding validity and the strength of findings (BERA, 2003; Fromberg, 1999; Lillard et al. 2013; Rubin et al., 1983) research demonstrates that play has significant benefits for children's abilities in literacy (Christie & Roskos, 2006; Fromberg, 1999; Pellegrini, 1980; Pellegrini & Galda, 1993; Whitebread & Jameson, 2010; Williamson & Silvern, 1990), mathematics (BERA, 2003; Ginsburg, 2006; Griffiths, 2010; Worthington, 2012), science (BERA, 2014; Howe & Davies, 2010), problem solving (Moyles, 1989; Sylva, Bruner & Genova, 1974) and creativity, (Kogan, 1983; Moyles, 1989). Play has also been shown to promote social and emotional functioning in the realms of social skills (BERA 2003; Hartup, 1992; Humphreys & Smith, 1987) and self-regulation (Berk, Mann & Ogan, 2006). Later research has uncovered that certain types of play are better at promoting developmental gains – namely those in which children engage in and sustain complex interactions with others, particularly adults, and where child initiated play is balanced with adult-directed activities (BERA, 2003; Ceglowski, 1997; Karrby, 1990; Sylva & Lunt, 1982; Wood & Bennett, 1999). This gives significant insight into the types of play experience which should be provided and encouraged within educational settings.

It is thus unsurprising that the vast majority of early years and lower primary practitioners report valuing play and play-based curricula as facilitators of children's cognitive development (Keating, Fabian, Jordan, Mavers & Roberts, 2000; McInnes & Birdsey, 2013; McInnes et al., 2011; Moyles & Worthington, 1999; Rogers & Evans, 2008; Rothlein & Brett, 1987). Equally, the European Commission has stated that in quality early years practice, "children's play should be put at the centre of any educational initiative aimed at enhancing children's learning" (EU, 2014, p.44). The Department for Education's framework for the EYFS also acknowledges that "play is essential for children's development", recommending that "each area of learning and development must be implemented through planned, purposeful play and through a mix of adult-led and child-initiated activity" (DfE, 2014, p.9). Contrastingly, the National Curriculum framework document for Key Stages 1 and 2 makes no mention of learning through play apart from one reference to "playing mirror games" to enable pupils to "answer questions about how light behaves" (DfE, 2013, p.159). Thus, despite evidence of a recent shift towards more free play in schools (Moyles & Worthington,

1999), claims made under the previous Labour government of insufficient continuity for children moving into Key Stage 1 are arguably still pertinent (Wood & Bennett, 1999). Indeed, there is considerable evidence that despite firm belief in the value of play for learning, even early years practitioners encounter substantial difficulties balancing the requirements of a formal, content based curriculum with play-based pedagogies, usually to the detriment of the latter (BERA, 2003; BERA 2014; Ceglowski, 1997; Keating et al. 2000; Moyles & Worthington, 1999; Wood & Bennett, 1999).

Despite general consensus on its effects on development, at least in the early years, there have been considerable difficulties establishing a working definition of 'play' (Takhvar, 1988). In the academic field, theorists have variously attempted to list its discrete characteristics, describe it more nebulously as a disposition towards an activity, or place it within a continuous spectrum at the opposite end of which is usually 'work' (Fromberg, 1999; Garvey, 1991; Pellegrini & Bjorklund, 1998; Piaget, 1984; Smith, Takhvar & Gore, 1985; Takhvar, 1988). In accordance with this disparity, research demonstrates differences in how practitioners and teachers define play and identify it in children's activities (Rothlein & Brett, 1987; Sherwood & Reifel, 2010). This casts doubt on whether play pedagogy has enough of a common understanding to facilitate continuity of practice.

To date, relatively little research has been undertaken on children's own perceptions of their activities in the classroom. The available evidence suggests that children usually have clear, dichotomous and often consensual distinctions between activities that are 'play' and those that are 'work'. Cues used in making these distinctions include the presence of adults, whether activities are adult-led, their environmental context, the presence of peers, effort required and enjoyment (Barnett, 2013; Howard, 2002; Howard, Jenvey & Hill, 2006; Karrby, 1990; King, 1979; McInnes & Birdsey, 2013; Robson, 1993; Takhvar, 1988; Wing, 1995). It seems that children value their play experiences in educational settings, usually finding them enjoyable and appreciating the autonomy they are allowed during free play (Garrick, 2010; Georgeson & Payler, 2010; Karrby, 1990; McInnes & Birdsey, 2013; Pollard, 1996; Rogers & Evans, 2008). However, it also seems that many children do not think teachers value their play, especially as they become older and more concerned with satisfying practitioners' classroom requirements (Pollard, 1996; Robson, 1993). Many children's views of 'learning' seem to espouse a traditional, passive definition, often characterised by the children sitting at tables and writing (McCallum, 2000; Pratt, 2006; Robson,

1993; Taskin, 2012), although McCallum (2000) and Hopkins (2008) also found many children with more active conceptions of learning. Daniels, Kalkman and McCombs (2001) suggest that children express notions of learning consistent with the practices in their educational settings. It also seems that children's educational settings impact upon how they perceive play, with children in child-centred settings more likely to identify adult-directed educational activities as 'play' (Robson, 1993; McInnes et al. 2011).

Although research has investigated children categorising 'work' or 'play' and 'learning' or 'not learning' activities, there appears little exploration of the intersection between these two sets of distinctions. In other words, few studies have examined whether children share practitioners' views that playful activities frequently have educational benefits. Howard's (2002) Activity Apperception Story Procedure in which children were asked to sort photographs according to the criteria above, found a correlation between activities identified as 'work' and 'learning'. Additionally, interview data from Robson (1993) suggests that children have a dichotomising view of 'learning' and 'play'. However a deeper qualitative understanding of whether children truly perceive these categories as mutually exclusive currently remains an area for further investigation and defines the aim of this study.

Methodology

Aims

This research aimed to investigate children's perceptions of whether playful activities in school were part of the learning process. Also of interest was whether pupils' ideas about play changed from reception year to year 2, during which time pupils would have transitioned from the EYFS into the National Curriculum Key Stages. A qualitative approach seemed best suited to achieve this since qualitative methods "can be used to obtain the intricate details about phenomena such as feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional research methods" (Strauss & Corbin, 1998, p.11). The approach would thus enable a detailed picture of the students' lived, affective experience of play in school and more formal types of school work.

Sampling

The sample was drawn from a mixed primary school in East Anglia which caters for children aged from 4 to 11 years. The majority of pupils are from White British backgrounds although a few pupils are from minority ethnic heritages and a few speak English as an additional language (5.4%). The proportion of pupils with special educational needs and/or disabilities is higher than that found nationally (6.3%), while the proportion of pupils known to be eligible for free school meals is lower than found nationally (7.3%). The school was rated 'good' in its latest OFSTED report. The school's participation in this research arose for practical reasons since the researcher was working within the school at the time the interviews were conducted. The school sampling process was thus largely one of convenience (Cohen, Manion & Morrison, 2011).

Interviews were conducted with 8 reception and year 2 pupils at the school. To ensure a balance of age and gender, a sample of two boys and two girls was drawn from each year group. The reception children were all aged 4 or 5 while those in year 2 were 6 or 7. These years were chosen in the hope of highlighting any possible differences in the perspectives of children in the EYFS and those fully established in the national curriculum Key Stages, without too large a potential for age-related differences, such as command of vocabulary, to significantly colour results. Although the samples are small, this allowed sufficient time to fully probe and understand each child's perspective, enabling a detailed and authentic, though perhaps not generalizable, illustration of the individuals' views.

To maximise representativeness, a randomised systematic sample was taken of those children for whom parental consent had been given. Overall, the names were drawn from a list of 6 positive responses for reception aged boys, 3, for reception girls, 4 for year 2 boys and 5 for year two girls. One year 2 boy was eliminated at this stage of the process on the grounds of his special educational needs making him an uncharacteristic participant and an unsuitable candidate for interview. This reduced the number of names in the relevant pool to 3.

Data collection

Since the focus of the study was on pupil's perspectives of school-based activities, a case study was deemed appropriate to enable "detailed contextual analysis" (Susan, 1997) and provide 'rich data' that would allow "in-depth insights into participants' lived experiences" of the issue (Hamilton,

2011, p.1). Interviews were considered most suitable for data collection due to their adaptability by which the researcher can instantaneously probe and clarify responses as they are given, and infer information from cues such as hesitations and facial expression. Hence interviews offer more detailed, rich and holistic data than written responses or questionnaires (Bell, 1993).

In accordance with case study conventions (Hamilton, 2011) and to improve internal validity in the study (Einarsdóttir, 2007), three separate interview methods were adopted as a form of methodological triangulation (Edwards, 2001). The first type was a ‘walking interview’ where space was used as a structural factor and familiar context to “help and support” the child who, at a young age, may struggle with sitting still for a formal interview (Langsted, 1994, p.35). In a method similar to some mosaic approaches (Jarvis, Newman, Holland & George, 2012) the children were asked to show the researcher around their classroom, highlighting the different areas and describing what they did in each part. Secondly, an established method was adopted of asking children to draw pictures and discuss them with the interviewer (Clark, 2005). The participants were instructed to depict someone learning and describe what they drew. Finally, in a partial reproduction of Howard’s (2002) Activity Apperception Story Procedure, by which current findings in this field have been obtained, participants were shown pictures of primary-aged children engaged in different school activities, involving various social dynamics of children and teachers (Appendix 1). Participants were asked to describe what they saw. Photographs have been found to effectively engage and ground young children in interviews and this section offered a more structured and targeted approach than the other interview strategies (Clark, 2005; Smith, Duncan & Marshall, 2005).

The interviews were guided and semi-structured – a format where the researcher establishes a framework of loosely guiding themes within which the participant has latitude. This means that “certain questions are asked, but respondents are given freedom to talk about the topic and give their views in their own time” (Bell, 1993, p.94). This format had the advantage of allowing respondents to freely offer their initial responses to questions and introduce topics of concern to them which the researcher may not have anticipated. Questions in each individual interview schedule, and over the sequence of interviews as a whole were initially broad, allowing respondents interpretive power to raise their own issues of importance (Appendix 2). Focus was then gradually narrowed explicitly on whether particular activities promote learning, until the format involving photographs appeared more like a structured interview, making the data from this section more

empirical. Given the knowledge from previous research that children readily identify 'play' activities (e.g. Barnett, 2013; Howard, 2002; Howard et al., 2006; McInnes & Birdsey, 2013), and to avoid skewing results, the interviewer deliberately avoided using the word 'play' throughout data collection, apart from where children's statements were repeated for confirmation. It was anticipated (and confirmed in a pilot of the method) that the children would voluntarily describe activities as 'play'. Hence, interview questions focussed on the notion of 'learning' in relation to various activities.

The responses' authenticity was enhanced by putting the participants at ease through allowing the initial interviews to "move naturally from topic to topic, maintaining the fiction of an interesting conversation" (Oppenheim, 1992, p.70). However, since the interviews were loosely planned, some validity was maintained by asking questions from the script "with the same meaning, in the same words, [and with the] same intonation" with each group (ibid. p.67). The interviewees were in groups to try to decrease the situation's formality. However, where there seemed an imbalance within groups, some questions were actively directed towards quieter individuals to ensure that all participants were represented. Equally, the data was checked carefully for instances where individuals may have felt pressure to state conformity with their peers' opinions. With participants' permission, the interviews were recorded on a Dictaphone for later analysis, as Oppenheim suggests is necessary (ibid.).

Ethics

The research accorded to the school's code of practice and adhered to the British Educational Research Association's guidelines, explained in their *Ethical Guidelines for Educational Research* (BERA, 2011). The head teacher of the school gave consent to the study being conducted. Letters were also given in advance to the pupils' parents or carers, informing them about the research and seeking permission (Appendix 3). Only those pupils with full parental consent were considered for participation. Before each interview, the purposes of the research, the interview's proposed format, its voluntary and confidential nature, and the participants' rights to withdraw were all explained (Appendix 4). Respondents' verbal acquiescence to participation was then obtained as representing informed consent.

In any research, particularly qualitative studies, feelings and opinions will mean that "complete objectivity is unobtainable" (Hitchcock & Hughes, 1995, p.55). Since "all research is contaminated

to some extent” by the researcher’s values (Silverman, 2000, p.200), it is easier to acknowledge bias “than to eliminate it altogether” (Bell, 1993, p.95). However, measures were nonetheless taken whereby the interviewer tried to remain unaffected by circumstance and opinion (Oppenheim, 1992), particularly through avoiding ‘leading’ question phrasing or substantially altering their feedback to responses. It is equally “inevitable that the researcher will have some influence on the interviewee and, thereby, on the data” (Cohen et al., 2011, p.204). This results from the interviewer being “either limited or helped by his or her own sex, apparent age and background, skin colour, accent etc.” (Oppenheim, 1992, p.65). Thus, being a young white, middle-class female will have impacted my role as researcher, as will my temporary role as a staff member at the school. Also of relevance is how this study’s interviews were undertaken in participants’ school meaning that interviewer and participant were unavoidably bound up in a power imbalance resulting from the institution’s structured setting. Although these influences on the data could never be completely eliminated, reasonable attempts were made to reduce their effects though the interviewer adopting a friendly manner and explaining to participants their now altered role as a researcher.

Data analysis

After the interviews, the recordings were transcribed (Appendix 5) and quotes were collected under headings of the themes which recurred most frequently. Each theme was then analysed using the perspective of Bernstein’s (1975) theory of ‘classification’ and ‘framing’, where classification is the amount of distinction made between different activities/ curriculum subjects and framing is the extent to which activities are directed by adults. The numbers of instances of certain types of response were also quantified for numerical analysis (Appendix 6). The themes and their analyses respectively form the subheadings and substance of the report’s findings.

Results

Given the greater degree of structure in the Key Stage 1 curriculum as opposed to the EYFS, it was anticipated that the year 2 children would express a greater sense of classification between ‘learning’ and ‘playing’ activities than those in reception. In fact, almost the opposite proved to be the case. While acknowledging that the study’s small sample size limits the value of quantitative analyses, some statistical and qualitative evidence shall here be explored, along with potential explanations.

'Play'

Although there was some disagreement within each group, reception children appeared more likely to characterise classroom activities as 'play' than were the older participants. They generally agreed (consensus among at least 3 out of 4 participants) that 5 out of 11 area-based activities and photographs were 'play' as opposed to 3 out of 21 activities in the year 2 sample. When the children's individual answers are analysed 20 out of 41 activity descriptions involve 'play' or 'choice' in reception, compared with 20 out of 80 activity descriptions in year 2. This may reflect the greater number of tactile, hands-on experiences in the reception pedagogy such as using water and sand trays. However, even when presented with identical photographs of activities such as painting, reception children were more inclined to label them as 'play' or 'choice' which was the word the school's teachers used for child-initiated free play. The transcripts from discussions surrounding the picture representing 'art' highlight this point:

[Reception]

Researcher: Ok, Tabatha says not learning. What do you think, Ellie?

Ellie: Not learning.

Researcher: Ellie says not learning. Why do you think not learning?

Ellie: Because that's choice.

Researcher: Because it's choice. What do you think?

Tabatha: Um. It's a choice.

[Year 2]

Gemma: And she's learning because she's learning to paint.

Brian: Yeah.

Researcher: You reckon?

Kirsty: Yeah.

Brian: Learning. Definitely learning.

Aahil: She's learning, learning, learning.

It is likely that the increased classification of the Key Stage 1 curriculum, in which 'art' is a discrete subject with its own slot on the timetable, meant that the year 2 children were less likely to identify

it as an activity that was ‘play’. This is perhaps an addition to the ways in which Pollard (1996) describes children adopting “an increasingly refined ‘pupil’ role” (p.131) throughout primary schooling as they develop a view of the curriculum that will allow them to behave in a manner deemed acceptable by their teacher. Where classification is strong, tensions could arise if a teacher expected their pupils to engage in art when they viewed themselves as playing or choosing. Contrastingly, the reduced classification in the reception classroom appeared to mean that even in some instances where many adults would consider pupils to be educationally engaged or working, the participants had an alternative perception, influenced by their experiences of ‘choosing’:

Researcher: The sand area. Tabatha says it's the sand area. And what do you do here?

Ellie: Measure.

Tabatha: We measure.

Researcher: Wow, that's good. So you measure in here. Dillan, do you think you do learning here? ...

Dillan: Eerr, no.

Researcher: You don't think you do learning here.

Dillan: We just measure when the teachers tell us to and at choice time.

Dillan's comment is also interesting as it corresponds with other researcher's findings that children in more child centred settings with less classification and framing are less likely to use adult involvement in an activity as a cue that it is ‘not play’ (McInnes et al., 2011; Robson, 1993). It is evident that whether he was using the sand area in ‘choice time’ or ‘when the teachers tell us to’ had little impact on Dillan's perception of the activity itself which he claimed to enjoy. The year 2 pupils did not mention framing at all in relation to their descriptions of playful activities and identified the ‘role-play’ photograph, which depicted an adult, as ‘play’. Hence framing appeared less significant than classification in determining pupil's conceptions of ‘play’.

‘Learning’

As the extracts above illustrate, the year 2 group were also more likely than the younger participants to identify activities as ‘learning’. The reasons for this difference are probably similar to those producing the greater incidences of ‘play’ descriptions in the reception sample. Overall, 14 of the 21 activities discussed with the older children received a general consensus as at least sometimes

'learning', compared to 3 out of 11 activities with the younger children. Children's individual responses for 'learning' stood at 63 of 80 in year 2 and 15 of 41 in reception. Again, caution must be taken with these figures given that there was not a complete match of activities discussed between the two groups, but since the activities corresponded to those the children undertook in school, having been produced either as a result of the children's tour of their classroom or from the researcher's prior knowledge of the school's curriculum, the statistics may still be taken as an indication that the older pupils felt that more of their school activities involved 'learning'. Moreover, as the two groups' varying responses to the 'book corner' indicate, even where there was an activity match across the two groups, older children were still likelier to classify it as 'learning':

[Reception]

Researcher: So when you come here and you do things in the book corner, are you learning then? Do you learn here?

Tabatha: No. We just read books.

Researcher: You just read books. What do you think, Ellie? Do you think you learn here?

Ellie: No.

Researcher: No? What do you do here?

Ellie: We read books.

Researcher: What do you think, Chris?

Chris: We don't learn here.

[Year 2]

Aahil: Kind of learning.

Researcher: Ok, if you say kind of, why do you think it's kind of?

Aahil: Because we get to read.

Gemma: You read but... You don't write but you learn what's in the books.

Kirsty: Reading's kind of learning, helping you to read.

Researcher: Kirsty thinks it's kind of learning helping you to read.

Brian: You learn new words.

These extracts also exemplify how the Key Stage 1 children were more likely to identify specifically what they were learning while undertaking activities. There were several examples of this across the interview, particularly in relation to the photographs. The difference is perhaps due to the older pupil's more advanced communication skills, but as the extracts below demonstrate, the reception children seemed to have far more difficulty determining why they thought an activity was 'learning'. Tabatha once even offered what she considered the teacher's view instead of her own:

[Reception]

T: [At the carpet.] We do learn here.

R: Oh, ok. Tabatha says we do learn here. Why? What learning do you do here?

T: The teacher says we do phonics.

[Reception]

C: [About the 'art' photograph] Learning.

R: You think it's learning. Yes? Why do you think it's learning?

C: Don't know.

R: You don't know. What do you think, Dillan? Learning or not learning?

D: Learning.

R: Learning. Do you know why you think it's learning? [Pause.] Not sure? Ok.

[Year 2]

R: [About the 'music' photograph.] Why do you think they're learning?

G: They're learning notes.

B: How to play recorders.

K: Well it's because they're learning how to um, make notes and they're learning how you play music and you play recorders.

The interview data also upheld other researcher's findings that many children hold traditional, passive views of learning involving listening to others in the classroom, sitting at tables and writing (McCallum, 2000; Pratt, 2006; Robson, 1993; Taskin, 2012). This view made Gemma uncertain of whether she learned in the book corner, as she explained 'well it might not be learning because

we're not sitting on the carpet and doing things like maths and writing'. Even amongst the reception children, who were more likely to classify photographs and activities in their setting as 'play', there was unanimity that writing at tables was 'learning' and only one child identified carpet time and assembly as 'not learning'. In year 2 all of these activities, along with mathematics, phonics, story time and the 'reading' photograph were universally described as 'learning'. This result was confirmed by the children's drawings (Appendix 7). Of the six children across both years who drew and/or described relevant pictures containing identifiable activities, all bar one depicted the learner sitting at a desk writing, reading or working on a computer. Ellie drew a girl next to the water container. Interestingly, and in opposition to the general findings in this research, she claimed when questioned that the girl was 'playing with the water' and 'doing choices' whilst still hesitantly indicating that she was learning. However, a short while after providing this answer to questioning, Ellie commented, 'she's going to read a book' and subsequently added a book into her picture. It is possible that she had forgotten the task's instructions but was reluctant to admit this as the case.

It is notable that these traditional 'learning' activities are generally those with some of the highest levels of framing. Additionally, the 'reading', 'cooking', 'story time', 'assembly' and 'role-play' pictures all showed adults and, with the exception of 'role-play', were unanimously accepted by the year two children as depicting 'learning'. Kirsty depicted her teacher in her picture and Chris commented, "I think I'll draw a teacher", while undertaking his work. Hence the findings concur with those of other studies suggesting that most pupils consider teacher-led activities as 'work' or 'learning' (e.g. Howard, 2002; Howard, et al., 2006).

Overlap between 'play' and 'learning'

Another, starker, difference between the two age groups was in the extent to which they perceived 'learning' and 'play' to be mutually exclusive. It was immediately apparent that the two were seen as distinct by the reception group since apart from when Dillan said he learned with the water at 'choice time', no activity was described by any of the children as falling into both categories. This would support the findings of other studies suggesting correlations between 'not learning' and 'play' (Howard, 2002; Robson, 1993) In fact, the children sometimes cited 'play' or 'choice' as an explanation for why an activity could not be classed as 'learning', as in the discussion of painting (above), or the following examples:

[Reception]

R: [At the equipment trays.] Dillan, is this a place where you learn? Do you learn with these things?

E: No.

D: No. They're just all the toys that we play with.

[Year 2]

All: [About the 'having break' photograph.] Not learning.

R: Ok, why are they not learning?

B: Well, maybe because they're playing.

The year 2 participants sometimes expressed similar views, as seen above. However, at other times, they expressed a lesser degree of classification between the two types of activity, as demonstrated below. In all, there were 11 incidences of year 2 pupils citing overlap between 'learning' and 'playing':

K, B, A: [About the 'using blocks' photograph.] Not learning.

K: But he might be learning.

G: Yeah, he might be learning to stack things.

R: Maybe.

K: Or he's building so he can count and that would help him count.

R: That's interesting. What do you think, Brian? [Pause] There's no right or wrong answer.

B: Um, I think that one's learning and playing.

G: She can't learn while playing in sand!

K: Yeah.

B: She can. I think she can.

R: Why do you think she can?

B: What if she has a sand... What is it? A sand... A sand mould... um, that is a letter? And you could, um, if you had lots of them, you could spell a word.

These transcripts illustrate how often, when classing activities as both 'learning' and 'play' the children's reasoning would entail explanations of how more formal educational practices, generally elements of mathematics or literacy, could be incorporated into a playful activity. This strengthens the evidence cited earlier that the children's view of learning remained rather traditional. Therefore, where the children identified learning opportunities in play, it was generally not in terms of the kinds of general cognitive and social experiences cited by researchers and practitioners as some of play's main benefits (e.g. BERA, 2003; Fromberg, 1999; Rogers & Evans, 2008). Apart from Gemma's comment about 'learning to stack things' only one other reference (also by Gemma) was made which referenced play's potential wider psychological benefits:

G: [About the 'role-play' photograph] But I think they might be a little bit learning to be people.

R: In what way do you mean?

G: Well, if they're dressing up as someone different, they would be someone different or imagine that they were someone different so they're kind of learning to be somebody different. Not just them.

Thus, while the year 2 pupils seemed to perceive less classification between 'learning' and 'playing', this usually linked to where they saw classification breaking down between 'play' and the formal curriculum rather than a reduced classification with learning intrinsic to the 'play' activities themselves. This further reinforces the notion that, for the year 2 pupils, classification within the classroom impacted upon how they perceived playful activities. Activities could be 'learning' if they could be linked to a known school subject or discipline.

It was equally notable that all of the instances of cited overlap between 'play' and 'learning' occurred during the photograph section of the interview. During the other sections, where children were talking more from their own experiences, clearer distinctions between 'learning' and 'play' were expressed. Examples include when the children explained that they did not learn while playing mathematics games on the computer and when only Dillan identified their role-play area as a place where learning occurred, despite it containing clipboards, pencils and booking forms for the children to sign up to pretend bus tours. This finding arguably corroborates those of other studies suggesting that the pressures of a subject-driven curriculum mean that, particularly past the EYFS, opportunities for learning through play are not as widespread as might be hoped (e.g. BERA, 2003; BERA 2014; Keating et al. 2000; Wood & Bennett, 1999). It appeared that the children could see

the theoretical benefits of these activities in relation to other children in photographs, but that these insights were incompatible with their lived experiences of classroom activities.

Limitations

In addition to the methodological limitations already discussed, it is essential to note some of the restrictions of these results. Perhaps most important is the fact that, as a case study, this research was undertaken with a very small sample in one school setting (Bell, 1993). Given prior evidence of the impact of educational context on children's perceptions of play and learning (Daniels et al., 2001; McInnes et al., 2011; Robson, 1993), it would be necessary to repeat the procedure with far larger samples across a range of locations for any generalizable conclusion to be drawn from the findings. Additionally, partially due to sample restrictions, there are many variables the impacts of which remain unexplored. For example, no information was available about the pupils' attainment levels. Sampling did not account for this variable and it could not be considered in the data analysis. It would be equally pertinent to assess the effects of gender, cultural background, and socioeconomic status on results.

While the 'walking interview' and photographs produced good data for analysis, some problems arose with the second method of collection where the children were asked to draw pictures of people learning. Most of the children managed this fine, with interesting results. However, despite this method having previously been successful with similarly aged children (Dockett & Perry, 2006), the reception-aged boys seemed to struggle a lot with the task. Forgetting their original instructions, these children appeared to draw people and then hypothesise about what they might be doing based on the incidental characteristics of the picture. Chris, for example, drew large extended arms on his person, then, when questioned about what she was doing, uncertainly responded 'Maybe a hug? She's giving someone a hug.' It seems likely that the task, which had only been piloted with older children, proved too complex for the children's developmental level. Despite these limitations, this study still arguably offers an informative insight into how children perceive activities in school.

Discussion and implications

Overall, it appears that children associated high levels of activity classification and framing as 'learning' and low levels of classification, though not necessarily of framing, as 'play'. These results were consistent across both year groups. Although the reception children were more likely to label activities as 'play' and the year 2 participants were likelier to describe them as 'learning', these differences were probably due to the less formal, more play-based pedagogical style in the reception setting. Generally, the overlap between 'play' and 'learning' was extremely low, particularly amongst the reception sample. Even where the year 2 pupils proposed an overlap, this was almost always where they suggested reduced classification between 'play' and formal curriculum content rather than being due to their identifying developmental and educational benefits inherent in the playful activities. The conclusion might thus be drawn that the children did not view play as the important educational activity that their class teachers considered it to be.

In his work on classification and framing, Bernstein (1975) describes precisely this issue, where 'invisible pedagogies' defined by low levels of classification and framing, go unrecognised as educational experiences by pupils. Particularly worrying, is that Bernstein suggested that there may be social class differences between how pupils negotiate invisible pedagogies. He explained that one "concept basic to the invisible pedagogy is that of play" (Bernstein, 1975, p.117) and that middle class children from a families where "work and play are weakly classified" (p.118) will know that "there is productive and less productive play" (p.117) and will be able to distinguish between them. However, "for the working class, work and play are very strongly classified and framed" (p.118). Thus, working class children may not recognise the hidden educational agenda behind classroom play, missing educational experiences and being viewed as less able by their teacher as a result. As research has shown, certain types of play are far more conducive to making educational gains than others (BERA, 2003; Ceglowski, 1997; Karrby, 1990; Sylva & Lunt, 1982). Whether it was true that there were social differentials between pupils' perceptions of 'play' and 'learning' overlap could not be gauged in the present study and remains an area for future research. However, the fact remains that where at least some children struggle to see the agenda of invisible pedagogy, this could potentially have negative repercussions on their engagement with activities and their resulting achievement in school.

This is not to suggest that invisible pedagogy is intrinsically flawed or discriminatory. The benefits of high quality play to children's development and education are clear. However, perhaps it is possible to create a pedagogy involving low levels of classification and framing that is not 'invisible'. I this is something I will endeavour to create during my future practice. Even if the classroom environment has low levels of classification and framing, this does not necessarily prevent the teacher from explaining to pupils how the play activities are an important part of their experience in school and will help them to learn in a variety of ways. There is a balance which I intend to strike with future pupils between a play-based pedagogy and activities that the pupils view as valued by their teacher and part of their learning experience. It would be advisable for other practitioners to attempt to do the same if play pedagogy, a valuable part of a child's school experience, is to be used to greatest effects and afforded its proper place in the curriculum.

References

- Barnett, L. A. (2013). Children's perceptions of their play: Scale development and validation. *Child development research*. Retrieved from <http://dx.doi.org/10.1155/2013/284741> .
- Bell, J. (1995). *Doing your research project: A guide for first-time researchers in education and social science* (2nd ed.). Buckingham: Open University Press.
- BERA. (2003). *Early years research: Pedagogy, curriculum and adult roles, training and professionalism*. Retrieved from <https://www.bera.ac.uk/wp-content/uploads/2014/01/beraearlyyearsreview31may03.pdf> .
- BERA. (2011). *Ethical Guidelines for Educational Research*. Retrieved from <http://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011> .
- BERA. (2014). *Early Years: Policy advice and future research agendas*. London: BERA. Retrieved from <https://www.bera.ac.uk/wp-content/uploads/2014/02/Early-Years-Policy-BERA-TACTYC2.pdf> .
- Berk, L. E., Mann, T. D. & Ogan, A. T. (2006). Make-believe play: Wellspring for development of self-regulation. In D. G. Singer, R. M. Golinkoff & H. Hirsch-Pasek (Eds.), *Play = learning: How play motivates and enhances children's cognitive and social-emotional growth* (pp. 74-100). Oxford: Oxford University Press.

- Berk, L. E. & Winsler, A. (1995). *Scaffolding Children's Learning: Vygotsky and Early Childhood Education*. Washington, DC: NAEYC.
- Bernstein, B. (1975). *Class, codes and control, volume 3: Towards a theory of equational transmissions*. London and Boston: Routledge and Kegan Paul.
- Bruner, J. (1983). Play, thought and language. *Peabody journal of education*, 60(3), 60-69.
- Ceglowski, D. (1997). Understanding and building upon children's perceptions of play activities in early childhood programs. *Early childhood education journal*, 25(2), 107-112.
- Christie, J. (1983). The effects of play tutoring on young children's cognitive performance. *The Journal of Educational Research*, 76(6), 326-330.
- Clark, A. (2005). Listening to and involving young children: A review of research and practice. *Early child development and care*, 175(6), 489-505.
- Cohen, L., Manion, L. & Morrison, K. (2011). *Research methods in education* (7th ed.). London and New York: Routledge.
- Corrigan, R. (1982). The control of animate and inanimate components in pretend play and language. *Child development*, 53(5), 1343-1353.
- Daniels, D. H., Kalkman, D. L. & McCombs, B. L. (2001). Young children's perspectives on learning and teacher practices in different classroom contexts: Implications for motivation. *Early education and development*, 12(2), 253-273.
- DfE. (2013). *The national curriculum in England: Key stages 1 and 2 framework document*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335133/PRIMARY_national_curriculum_220714.pdf.
- DfE. (2014). *Statutory framework for the early years foundation stage: Setting the standards for learning, development and care for children from birth to five*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335504/EYFS_framework_from_1_September_2014__with_clarification_note.pdf.
- Dockett, S. & Perry, B. (2005). Researching with children: Insights from the Starting School Research Project. *Early child development and care*, 175(6), 507-521.

- Edwards, A. (2001). Qualitative designs and analysis. In G. MacNaughton, S. A. Rolfe & I. Siraj-Blatchford (Eds.), *Doing early childhood research: International perspectives on theory and practice* (pp. 117-135). Buckingham: Open University Press.
- Einarsdóttir, J. (2007). Research with children: Methodological and ethical challenges. *European early childhood education research journal*, 15(2), 197-211.
- EU. (2014). Proposal of key principles of a Quality Framework for Early Childhood Education and Care: Report of the Working Group on Early Childhood Education and Care under the auspices of the European Commission. Retrieved from http://ec.europa.eu/education/policy/strategic-framework/archive/documents/ecec-quality-framework_en.pdf.
- Fromberg, D. P. (1999). A review of research on play. In C. Seedfeldt (Ed.), *The early childhood curriculum: Current findings in theory and practice* (pp. 27-53). New York: Teachers College Press.
- Garrick, R., Bath, C., Dunn, K., Maconochie, H., Willis, B. & Wolstenholme, C. (2010). *Children's experiences of the Early Years Foundation Stage*. London: DfE. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182163/DFE-RR071.pdf.
- Garvey, C. (1991). *Play* (2nd ed.). London: Fontana Press.
- Georgeson, J. & Payler, J. (2010) Work or play: How children learn to read the signals about activity type in today's early years provision. In J. Moyles (Ed.), *The excellence of play* (3rd ed.) (pp. 34-52). Maidenhead: Open University Press.
- Ginsburg, H. P. (2006). Mathematical play and playful mathematics: A guide for early education. In D. G. Singer, R. M. Golinkoff & H. Hirsch-Pasek (Eds.), *Play = learning: How play motivates and enhances children's cognitive and social-emotional growth* (pp. 145-165). Oxford: Oxford University Press.
- Griffiths, R. (2010). Mathematics and play. In J. Moyles (Ed.), *The excellence of play* (3rd ed.) (pp. 169-185). Maidenhead: Open University Press.
- Hamilton, (2011). Case studies in educational research, BERA online resource. Retrieved from <https://www.bera.ac.uk/wp-content/uploads/2014/02/Case-studies-in-educational-research.pdf>.

- Hartup, W. W. (1992). Having friends, making friends and keeping friends: Relationships as educational contexts. ERIC digest. Retrieved from <http://files.eric.ed.gov/fulltext/ED345854.pdf>.
- Hitchcock, G. & Hughes, D. (1995). *Research and the teacher: A qualitative introduction to school-based research* (2nd ed.). London & New York: Routledge.
- Hopkins, E. A. (2008). Classroom conditions to secure enjoyment and achievement: The pupil's voice. *Listening to the voice of Every Child Matters. Education 3-13*, 36(4), 393-401.
- Howard, J. (2002). Eliciting young children's perceptions of play, work and learning using the Activity Apperception Story Procedure. *Early child development and care*, 172(5), 489-502.
- Howard, J., Jenvey, V. & Hill, C. (2006). Children's categorisation of play and learning based on social context. *Early childhood development and care*, 176(3-4), 379-393.
- Howe, A. & Davis, D. (2010). Science and play. In J. Moyles (Ed.), *The excellence of play* (3rd ed.)(pp. 154-168). Maidenhead: Open University Press.
- Humphreys, A. P. & Smith, P. K. (1987). Rough and tumble, friendship, and dominance in schoolchildren: Evidence of continuity and change with age. *Child development*, 58(1), 201-212.
- Jarvis, P., Newman, S., Holland, W. & George, J. (2012). *Research in the early years: A step-by-step guide*. Harlow: Pearson Education Ltd.
- Karrby, G. (1990). Children's conceptions of their own play. *Early child development and care* 58(1), 81-85.
- Keating, I., Fabian, H., Jordan, P., Mavers, D. & Roberts, J. (2000). "Well, I've not done any work today. I don't know why I came to school". Perceptions of play in the reception class. *Educational studies*, 26(4), 437-454.
- King, N. R. (1979). Play: The kindergartener's perspective. *The elementary school journal*, 80(2), 80-87.
- Kogan, N. (1983). Stylistic variation in childhood and adolescence: Creativity, metaphor, and cognitive style. In J. H. Flavell & E. M. Markman (Eds.), *Handbook of child psychology, volume 3* (4th ed.) (pp. 360-706). New York: John Wiley & Sons.

- Langsted, O. (1994). Looking at quality from the child's perspective. In P. Moss & A. Pence (Eds.), *Valuing quality in early childhood services: New approaches to defining quality* (pp. 28-42). London: Paul Chapman Publishing Ltd.
- Lillard, A. S., Lerner, M. D., Hopkins, E. J., Dore, R. A., Smith, E. D. & Palmquist, C. M. (2013). The impact of pretend play on children's development: A review of the evidence. *Psychological bulletin*, 139(1), 1-34.
- Lillard, A. S., Pinkham, A. M. & Smith, E. (2011). Pretend play and cognitive development. In U. Goswami (Ed.). *The Wiley-Blackwell handbook of childhood cognitive development* (2nd ed.) (pp. 285-311). Chichester: John Wiley & Sons Ltd.
- McCallum, B., Hargreaves, E. & Gripps, C. (2000). Learning: The pupil's voice. *Cambridge journal of education*, 30(2), 275-289.
- McInnes, K. & Birdsey, N. (2013). Understanding play: the perceptions of children, adolescents, parents and teachers. Accessed online <https://www.inter-disciplinary.net/probing-the-boundaries/wp-content/uploads/2013/05/mcinnespplaypaper.pdf>.
- McInnes, K., Howard, J., Miles, G. & Crowley, K. (2011). Differences in practitioners' understanding of play and how this influences pedagogy and children's perceptions of play. *Early years: An international research journal*, 31(2), 121-133.
- Moyles, J. R., (1989). Just playing? The role and status of play in early childhood research. Buckingham: Open University Press.
- Moyles, J. R. & Worthington, M. (2011). The Early Years Foundation Stage through the daily experiences of children. TACTYC Occasional paper no .1. Retrieved from <http://tactyc.org.uk/occasional-paper/occasional-paper1.pdf>.
- Mueller, E. and Brenner, J. (1977). The origins of social skills and interaction among playgroup toddlers. *Child development*, 48(3), 854-861.
- Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement* (new ed.). London and New York: Continuum.
- Pellegrini, A. D. (1980). The relationship between kindergarteners' play and achievement in prereading, language and writing. *Psychology in the schools*, 17, 530-535.

- Pellerini, A.D. & Bjorklund, D. F. (1998). *Applied child study: A developmental approach* (3rd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Pellegrini, A. D. & Galda, L. (1993). Ten years after: A reexamination of symbolic play and literacy research. *Reading research quarterly*, 28(2), 162-175.
- Piaget, J. (1984). The stages of the intellectual development of the child. In P. Barnes, J. Oates, J. Chapman, V. Lee & P. Czerniewska (Eds.), *Personality, development and learning: A reader* (pp.31-38). London: Hodder & Stoughton.
- Power, T. G. (2000). *Play and exploration in children and animals*. London: Lawrence Erlbaum Associates.
- Pratt, N. (2006). 'Interactive' teaching in numeracy lessons: What do children have to say? *Cambridge journal of education*, 36(2), 221-235.
- Preissler, M. A. (2006). Play and autism: Facilitating symbolic understanding. In D. G. Singer, R. M. Golinkoff & H. Hirsch-Pasek (Eds.), *Play = learning: How play motivates and enhances children's cognitive and social-emotional growth* (pp. 231-250). Oxford: Oxford University Press.
- Pollard, A. (1996). Playing the system? Pupil perspectives on curriculum, pedagogy and assessment in primary schools. In P. Croll (Ed.), *Teachers, pupils and primary schooling* (pp. 119-133). London: Cassell.
- Robson, S. (1993). "Best of all I like choosing time": Talking with children about play and work. *Early childhood development and care*, 92(1), 37-51.
- Rogers, S. & Evans, J. (2008). *Inside role-play in early childhood education*. London: Routledge.
- Rothline, L. & Brett, A. (1987). Children's, teachers' and parents' perceptions of play. *Early Childhood Research Quarterly*, 2, 45-53.
- Rubin, K. H., Rein, G. G. & Vandenberg, B. (1983). Play. In E. M. Hetherington (Ed.), *Handbook of child psychology, volume 4* (4th ed.) (pp. 692-774) New York: John Wiley and Sons.
- Sherwood, S. A. S. & Reifel, S. (2010). The multiple meanings of play: Exploring preservice teachers' beliefs about a central element of early childhood education. *Journal of early childhood teacher education*, 31(4), 322-343.

- Silverman, D. (2000). *Doing qualitative research: A practical handbook*. London: Sage Publications.
- Smilansky, S. (1968). The effects of sociodramatic play on disadvantaged preschool children. New York and London: John Wiley.
- Smith, A., Duncan, J. & Marshall, K. (2005). Children's perspectives on their learning: Exploring methods. *Early child development and care*, 175(6), 473-487.
- Smith, P. K., Takhvar, M., Gore, N. & Vollstedt, R. (1986) Play in young children: Problems of definition, categorisation and measurement. In P. K. Smith (Ed.), *Children's play: Research developments and practical applications* (pp. 39-55). New York: Gordon and Breach Science Publishers.
- Strauss, A. & Corbin, C. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). London: Sage Publications.
- Susan K. (1997). The case study as a research method. Unpublished paper, University of Texas at Austin. Retrieved from <https://www.ischool.utexas.edu/~ssoy/usesusers/1391d1b.htm> .
- Sylva, K., Bruner, J. S. & Genova, P. (1973). The role of play in the problem-solving of children 3-5 years old. In J. S. Bruner, A. Jolly & K. Sylva (Eds.), (1976). *Play: Its role in development and evolution* (pp. 24-257). Middlesex: Penguin Books Ltd.
- Sylva, K. & Lunt, I. (1982). *Child development: A first course*. Oxford: Blackwell Publishers Ltd.
- Takhvar, M. (1988). Play and theories of play: A review of the literature. *Early child development and care*, 39(1), 221-244.
- Taskin, C. S. (2012). Learning: What do primary pupils think about it? *The journal of educational research*, 105(4), 277-285.
- Vygotsky, L. (1978). *Mind in Society*. Massachusetts and London: Harvard University Press.
- Whitebread, D. & Jameson, H. (2010). Play beyond the Foundation Stage: Storytelling, creative writing and self-regulation in able 6-7 year olds. In J. Moyles (Ed.), *The excellence of play* (3rd ed.) (pp. 95-107). Maidenhead: Open University Press.
- Williamson, P., & Silvern, S. (1990). The effects of play training on the story comprehension of upper primary children. *Journal of Research in Childhood Education*, 4, 130-134.

- Wing, L. A. (1995). Play is not the work of the child: young children's perceptions of work and play. *Early childhood research quarterly*, 10, 223-247.
- Wood, E. & Bennett, N. (1999). Progression and continuity in early childhood education: Tensions and contradictions. *International journal of early years education*, 7(1), 5-16.
- Worthington, M. (2012). Pretend play and mathematics: Informing the 'school readiness' debate. TACTYC, Reflecting on Early Years Issues. Retrieved from <http://tactyc.org.uk/pdfs/MAULFRY-REFLECTIONS%202012.pdf> .

Appendix 1 - Table of photographs and samples

Activity as described by researcher	Description
'Doing art'	Close-up picture of girl, from front, holding paint brushes and with a brightly painted page on a table in front.
'Having assembly'	Distance, side view of children sitting in rows on hall view. Teacher stands at front.
Using blocks	Close, frontal view of young girl standing at a table of coloured blocks and holding two.
'Having break'	Three children running in a circle on a piece of decking in a marked, tarmac playground.
'Doing colouring'	Frontal view of three children sitting at a table, two colouring pictures of flowers. Other children in background.
'Doing computing'	Side view of children sitting at rows of tables with laptops. Two adults look at some children's screens.
'Cooking'	View from above of an adult and child at a counter. The adult holds a wooden spoon above a mixing bowl of mixture.
'Having lunch'	Distance shot of children sitting at tables, eating and drinking from plastic trays and cups. Some adults in background.
'Doing maths'	Close, side view of a single girl, sitting at a table with an open mathematics workbook. She has some fingers extended for counting.
'Doing music'	Close, frontal shot of children standing in rows, some playing recorders. Music stand visible in background.
'Doing P.E.'	Front view of children in tracksuits standing in a grassy area. One boy throws a ball towards hoops on the ground.
'Doing phonics'	Close side view of a single boy at a table writing in pencil on a phonics worksheet.
'Reading'	Close, diagonal view of a child and adult at a table looking at a book. The adult points to the page.
'Doing role play'	View from above of some young children donning dressing up clothes. An adult in one corner helps a child to dress.
'Using sand'	Frontal view of a single girl in a grassy area, pointing to the sand in a sand tray.
'Having a story'	Side view of a group of children sitting on a carpet in a library. An adult sits on a chair in front holding a book.
'Writing'	View from above of a single boy sitting at a table and writing in felt-tip pen on lined paper.

Appendix 2 – Interview Schedule

Walking interview question schedule

Initial question:

Please show me around your classroom. What happens in the different parts of the room?

If a tour is not forthcoming:

What about this area? What do you do over here?

If some pieces of information do not naturally occur in the children's accounts for a particular area, the following questions may be asked:

- Does this area have a particular name?
- What activities do you usually do in this area of the classroom?
- Are those learning activities?
- What do kinds of things do you learn in those activities?
- Is this an area where you learn?
- When do you usually use this area?
- Do you enjoy using this area?
- Do you choose to come here?

Picture interview question schedule

Initial question:

Please can you draw me a picture of a person or some people learning? It doesn't have to be very good, just whatever you think children look like when they learn. They can be stick people if you want.

Evans, R.

As the children draw:

Can I take a look? Can you describe your picture to me? What's going on?

If description is not forthcoming:

What about this person? What are they doing?

If more detail is required for any part of picture:

- What about that bit? / What's that a picture of?
- What is that person doing?
- What are they holding?
- Is that person learning?
- What are they learning?
- Have they chosen to do that or been asked to do that?
- Are they enjoying doing that?
- Are these all of the activities that people do to learn?
- Do you think their teacher is happy that they're doing that?

The photographs:

Present the pictures one at a time to the pupils. For each picture, ask the following:

- What about these children? What are they doing?
- Do you think they are learning?
- *If yes* – What are they learning? *If no* – Why not?
- Do you think their teacher is happy that they are doing that?

Appendix 3 – Parental permission letter and form

Research for an extended essay to be carried out by a trainee teacher at

Dear Parent / Carer,

I am writing to let you know about a small-scale research project that is being carried out at and in which I hope your child will be involved.

I am Rachel Evans, a trainee teaching currently working at I am carrying out a small-scale research project as part of my Post-Graduate Certificate of Education course. The data from this research will be used to write an examined assignment focusing on children's ideas about factors that have an impact on their learning. The subject that I'm investigating is children's perceptions of play-based learning.

In order for me to collect information about this topic it will be necessary to interview your child and make an audio recording of the interview ready for analysis. The interview recordings that I make will only be used for analysis by myself. All of the recorded material will be destroyed at the end of the 2014-15 academic year. Children's drawings and/or writing will also be collected as part of the interview process. All references to the school and to the children involved in the research will be anonymised in the essay that I will write using the data.

In order for me to be able to carry out this work I need to ask for your written consent, on the attached form, to the collection of the material outlined above. I would ask you to return the attached form to me, via your child's class teacher, no later than the seventh of January 2015. If you have any queries about the work please do come in and see me in school.

Thank you very much for your help.

Yours sincerely,

Rachel Evans

An Investigation of Children's Perceptions of Play-Based Learning

School:

Teacher: Mrs

Child: _____

I hereby consent to my child being involved in the data collection for this research project, which will involve audio recordings and the collection of children's written work. I understand the nature and purpose of the research project, as communicated on the information letter that accompanies this form. I understand the purposes for which the data will be used, and that references to children and their school will be anonymised in academic writing resulting from the project.

Specifically, I give my permission for: audio recordings to be taken

written work to be collected

(Please tick the box to signify that you have given permission).

Signed: _____

Relationship to child: _____

Appendix 4 – Introductory explanation for participants

- Thank you for coming out of your lesson to talk to me.
- Before we begin, I've got a couple of things to explain to you just so that you understand what this is all about and what we are going to do today.
- When I'm not in school I'm a student at the University of Cambridge. I'd like to talk to you so that I can use the information you give me for a project I'm doing for the university.
- Our chat shouldn't take very long so you'll soon be able to go back to your lesson and it is important that you understand that there are no right and wrong answers to my questions, so please don't worry. This isn't a test and it's not supposed to be scary. I'm just interested to know what you think about some different things to do with school.
- Our chat is entirely voluntary. That means that you don't have to do this if you don't want to. If there are any questions that you don't want to answer, that's fine; you can just tell me "I don't want to talk about that" or "I don't want to answer that question".
- Equally, if you want to end the chat, stop talking to me and go back to class at any point then that's ok. You can just say that you're fed up, or whatever, and that you want to stop.
- You don't have to tell me why you don't want to answer a question or why you want to leave.
- In the same way, if you say something and then decide that you've changed your mind or you're not happy with it for any reason then just let me know and I'll get rid of it and won't use it as part of the project. Again, you don't have to tell me why you've changed your mind.
- Anything that you do tell me will be treated confidentially. That means that even once I've written the project, no one, not even your teachers or your parents or anyone, is going to know what you've said. I'm not going to tell anyone. It's a secret. If you're ok with this, I might talk about what you've said in my writing but if I do then I'll change your name and the name of the school will also be changed and no one will know that it was you that said a particular thing.

- The only exception to that is that if you say something which I find really concerning, for example if it makes me worry about your safety or the safety of others, then I would have to tell that to your teacher. It's very unlikely that that would ever happen but I have to warn you just in case.
- Are you happy with everything that I've said so far?
- I've got a dictaphone with me – do you mind if I record what we say together? It's just to help me remember what you say and I promise that no one else will be allowed to listen to the recording. I'll delete it as soon as I've finished with it.

Appendix 5 - Examples of interview transcript

[All children's names in these examples have been changed to pseudonyms.]

Reception class

Researcher: What about here? What are these things? [Going to equipment trays.]

Chris: They're the toys. [Digression while children show the toys.]

Researcher: And what are they, Ellie? What are all these things? What do you do with them?

Tabatha: We play.

Ellie: We choose them and we play

[Digression while children show the toys]

Researcher: [At the equipment trays.] Dillan, is this a place where you learn? Do you learn with these things?

Ellie: No.

Dillan: No. They're just all the toys that we play with.

[Short digression – showing toys]

Researcher: And, Ellie, You said that you don't think you learn here. Can you show me somewhere in the classroom where you do some learning?

R: Ooh, where's that?

Tabatha: The sand area.

R: The sand area. Tabatha says it's the sand area. And what do you do here?

E: Measure.

T: We measure.

R: Wow, that's good. So you measure in here. Dillan, do you think you do learning here? ...

D: Eerr, no.

R: You don't think you do learning here.

D: We just measure when the teachers tell us to and at choice time.

R: Ah, so you measure when the teacher tells you to and at choice time. That's interesting. And it's special name is the sand tray, is it? Do you enjoy using the sand tray?

D: Yeah.

R: is it fun?

E and T: Yeah.

Evans, R.

R: Ellie and Tabatha say 'yes'. Is it fun, Chris? Do you enjoy coming here? [Chris nods.] When do you come here?

C: At choice time sometimes.

R: Sometimes? Great.

R: Can we go and have a look over there? I'd like to see that. [Go to book corner.] What's this over here?

D: Book corner.

R: The book corner. What do you do here?

C: Look at books.

T: You read stories

R: You look at books and read stories.

C: And cuddle the teddies.

R: Ah, and you cuddle the teddies. That's nice!

[Digression about the children's ages]

R: So when you come here and you do things in the book corner, are you learning then? Do you learn here?

T: No. We just read books.

R: You just read books. What do you think, Ellie? Do you think you learn here?

E: No.

R: No? What do you do here?

E: We read books.

R: What do you think, Chris?

C: We don't learn here.

R: No? Dillan, what do you think? Is this a place where you learn or a place where you do something else?

D: Um... Eeerrmm....

R: You can say you're not sure if you want.

D: Don't know.

R: You're not sure. Do you think the teacher's happy when you come here and do things here? Yes? When do you come here normally?

E: When it's choice time.

R: In choice time.

T: And sometimes when I've bumped my head.

R: I see. Do you enjoy coming here? Is this somewhere you like or somewhere you don't like to be?

T: Don't like.

R: Tabatha doesn't like it. What do you think Dillan?

E: I don't like it.

R: Ellie doesn't like it.

D: Yes

R: Yes, Dillan likes it. Do you like it here, Chris?

C: Yes.

R: Do you sometimes come here during choice time? Yes?

E: I like it because I like playing in it.

R: You like it because you like playing in it.

C: I like the book corner because I like to play with books that I haven't looked at before.

R: [At the carpet.] Ooh, so you do the register here. You say 'good morning' and 'good afternoon' says Chris. Do you learn here?

C: Um, no.

R: What else happens here? Do you listen to the teacher here?

T: We do learn here.

R: Oh, ok. Tabatha says we do learn here. Why? What learning do you do here?

T: The teacher says we do phonics.

R: Phonics.

T: We do phonics this afternoon.

R: You're doing phonics this afternoon.

E: No, after lunch.

R: Yes. So do you think you learn here?

Girls: Yes

R: [To Chris.] But you're not so sure. You don't think you learn here. Dillan, what do you think about the carpet? Do you think you learn here?

D: Yes.

R: Yes. What do you do here that's learning? [Pause.] If you can't remember then that's alright. Don't worry. Some other people have said phonics. Do you think you learn during phonics here?

D: Yes.

R: What about your picture, Chris? Is that someone learning? Is that a person learning?

C: No. It's just a person. It's a grownup.

R: It's a grownup. Oh.

E: This is some long hair.

R: Oh right. That's the long hair. Lovely, Ellie!

C: Someone.... That's some hair....

R: Is that you, Dillan?

D: Yeah.

R: What are you looking for?

C: I think I'll draw a teacher. I need a colour for the mouth.

R: Is that you? Are you leaning there? Is that a picture of you learning?

D: Yes

R: Yes, you're learning. What are you doing?

C: Err, what colour is this?

D: Red

R: What about this picture? What's that person doing?

All: Painting.

R: Painting. Do you think they're learning or not learning?

T: Not learning

E: Not learning.

R: Ok, Tabatha says not learning. What do you think, Ellie?

E: Not learning.

R: Ok, Tabatha says not learning. What do you think, Ellie?

E: Not learning.

R: Ellie says not learning. Why do you think not learning?

E: Because that's choice.

R: Because it's choice. What do you think?

T: Um. It's a choice.

R: It's a choice. What do you think boys? Learning or not learning?

C: It think it's learning.

R: You think it's...?

C: [About the 'art' photograph] Learning.

R: You think it's learning. Yes? Why do you think it's learning?

C: Don't know.

R: You don't know. What do you think, Dillan? Learning or not learning?

D: Learning.

R: Learning. Do you know why you think it's learning? [Pause.] Not sure? Ok. What about this one? What are they doing?

Year 2

Researcher: What about this? What's going on there?

Brian: She's painting.

Gemma: The little girl is painting.

Researcher: Yeah, she's doing some art.

Gemma: And she's learning because she's learning to paint.

Brian: Yeah.

Researcher: You reckon?

Kirsty: Yeah.

Brian: Learning. Definitely learning.

Aahil: She's learning, learning, learning.

Researcher: What's she learning? Gemma says learning to paint. Do you agree?

Kirsty: She's learning to paint and she's learning to, like, mix colours and make new colours.

Researcher: Hmm. What do you think, Brian?

Brian: Umm... She's finding out new colours.

Researcher: Interesting. That's good.

R: Do you think you're learning or not learning when you're in the book corner?

A & B: Learning

G & K: Not learning

G: Kind of! Kind of! Kind of!

A: Kind of learning.

A: Kind of learning.

R: Ok, if you say kind of, why do you think it's kind of?

A: Because we get to read.

G: You read but... You don't write but you learn what's in the books.

K: Reading's kind of learning, helping you to read.

R: Kirsty thinks it's kind of learning helping you to read.

B: You learn new words.

R: Oh, good one, Brian! Ok!

K: Then here are all the teacher's books... And the teacher's drawers.

R: Ok. Aahil, what do you think for book corner? Learning or not learning?

A: Ummm, learning.

R: Learning. And why do you think it's learning?

A: Because we get to know new stories and we learn new words.

R: Right. What about the people who weren't sure? Why do you think it might not be learning?

G: Well it might not be learning because we're not sitting on the carpet and doing things like maths and writing which we like. But we're learning new words and how to spell things and sometimes we use books in our reading journals when we find our favourite character and write about them.

R: That's interesting. So it's not like some other types of learning you might do.

K: And you won't be learning if you keep reading the same book over and over again.

R: Ok. So it's a bit down to you to do your learning. Ok, so where will we go next in the classroom?

R: What about this one?

A, K and G: Learning

R: What are they doing?

G: They're playing recorder.

B: Recorder.

R: They're playing the recorder.

[Digression about recorder club]

R: Why do you think they're learning?

G: They're learning notes

B: How to play recorders

K: Well it's because they're learning how to um, make notes and they're learning how you play music and you play recorders.

R: That's right; they are doing music. Not all of them are playing recorders. I think some of them might be singing and things.

K: It might be a music lesson.

R: Yeah, I think it is a music lesson. What about that one? What are they doing?

R: What about that?

A: Oh, they, they're playing.

B: Playing. They're playing.

R: They're having their break. Do you think learning or not learning?

All: Not learning.

R: Ok, why are they not learning?

B: Well, maybe because they're playing.

R: Brian says they're playing.

G: Can I write the word Adam is looking for?

R: Yes.

A: Maybe learning because they're learning new games.

R: Hmm.

B: Or maybe they're doing a maths challenge against each other.

R: What, a kind of running around maths challenge? Do you know a game like that?

B: One where you run around.

R: Oh, that's an interesting idea.

R: What about that child?

A: Playing.

G: Um, I think...

A: That's playing.

B: That's playing.

R: Aahil and Brian say playing.

K: Playing.

G: I think he's playing with blocks.

R: Yes. You're right. He's using blocks. Do you think he's learning or not learning?

K, B, A: Not learning.

K: But he might be learning.

G: Yeah, he might be learning to stack things.

R: Maybe.

K: Or he's building so he can count and that would help him count.

R: That's interesting. What do you think, Brian? [Pause] There's no right or wrong answer.

B: Um, I think that one's learning and playing.

R: Learning and playing you say. Interesting. What about this?

R: What about that girl?

A: That's playing.

G, B, K: Playing.

B: Not learning.

G: And she's playing in the sand pit and it looks like she's at home.

A: And she is. It's in her garden, maybe.

G: And she's not even in school clothes.

R: So you don't think she's learning then, Gemma?

G: No.

A, K: Not learning.

G: She can't learn while playing in sand!

K: Yeah.

B: She can. I think she can.

R: Why do you think she can?

B: What if she has a sand... What is it? A sand... A sand mould... um, that is a letter? And you could, um, if you had lots of them, you could spell a word.

R: That's an interesting thought. So it depends what she's doing with the sand?

B: Yes.

G: Yes. It depends what she's doing with the sand.

R: What about these children? What are they doing?

B: They are...

A: Oh, they are playing

G and B: Dressing up.

K: Dressing up.

R: Yes, they're doing some role play. Do you think they're learning or not learning?

A: Lear... not learning

G: Not learning.

K: Not learning.

B: They're learning how to dress up.

R: Yeah. Ok. So why do you think they're not learning? What makes you say that?

G: Because dressing up isn't learning.

K: Because dressing up isn't really learning. It's just for fun.

G: They're just playing.

R: Ok. That's interesting.

G: But I think they might be a little bit learning to be people.

R: In what way do you mean?

G: Well, if they're dressing up as someone different, they would be someone different or imagine that they were someone different so they're kind of learning to be somebody different. Not just them.

R: That's an interesting thought, Gemma. What about that child?

Appendix 6 - Quantified data

Reception

	Activity	Learning	Play	Overlap	Total responses
(Classroom areas)	Role play area	0	1	0	2
	Equipment trays	0	3	0	4
	Sand tray	0	2	0	4
	Water container	0	3	1	4
	Book corner	0	3	0	3
	Carpet	3	0	0	3
	Table	4	0	0	4
(Photographs)	'Doing art'	2	2	0	4
	'Assembly'	3	0	0	4
	'Having break'	0	3	0	4
	'Role play'	1	3	0	4
Total:	11	15	20	1	41
		Group consensus: 3	Group consensus: 5		

Year 2

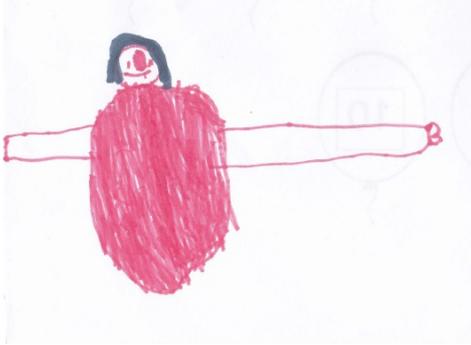
	Activity	Learning	Playing	Overlap	Total responses
(Classroom area)	Class computer	4	2	2	4
	Role play area	1	4	1	4
	Carpet	4	0	0	4
	Book corner	4	0	0	4
	Mathematics discovery area	4	0	0	4
	Free drawing area	1	2	1	4
	Table	4	0	0	4
(Photographs)	'Role play'	2	2	1	4
	'Using blocks'	3	4	3	4
	'Having assembly'	4	0	0	4
	'Doing art'	4	0	0	4
	'Doing colouring'	1	0	0	2
	'Cooking'	3	0	0	3
	'Having break'	2	2	2	4
	'Having lunch'	1	0	0	3
	'Doing music'	4	0	0	4
	'Doing P. E.'	4	0	0	4
	'Doing phonics'	4	0	0	4
	'Reading'	4	0	0	4
	'Using the sand'	1	4	1	4
'Having a story'	4	0	0	4	
Total:	21	63	20	11	80
		Group consensus: 14	Group consensus:3		

Appendix 7 – Children's drawings

[All children's names in these examples have been changed to pseudonyms.]

Reception

Chris:



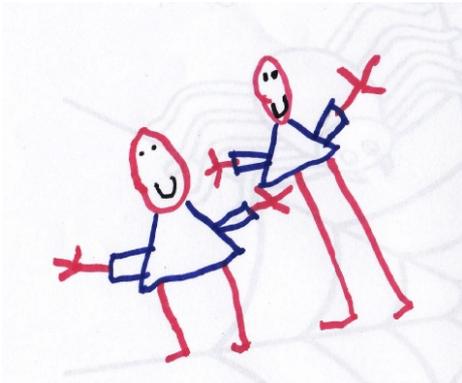
Ellie:



Tabatha:



Dillan:



Year 2

Kirsty:



Gemma:



Aahil:



Brian:

