Learning From the Experts: Exploring Playground Experience and Activities Using a Write and Draw Technique

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Background: Qualitative research into the effect of school recess on children’s physical activity is currently limited. This study used a write and draw technique to explore children’s perceptions of physical activity opportunities during recess. Methods: 299 children age 7–11 years from 3 primary schools were enlisted. Children were grouped into Years 3 & 4 and Years 5 & 6 and completed a write and draw task focusing on likes and dislikes. Pen profiles were used to analyze the data. Results: Results indicated ‘likes’ focused on play, positive social interaction, and games across both age groups but showed an increasing dominance of games with an appreciation for being outdoors with age. ‘Dislikes’ focused on dysfunctional interactions linked with bullying, membership, equipment, and conflict for playground space. Football was a dominant feature across both age groups and ‘likes/dislikes’ that caused conflict and dominated the physically active games undertaken. Conclusion: Recess was important for the development of conflict management and social skills and contributed to physical activity engagement. The findings contradict suggestions that time spent in recess should be reduced because of behavioral issues.

Keywords: qualitative methods, games, play, children, school
Participatory methods such as story games, concept mapping, photography drawing, and writing are thought to be developmentally appropriate techniques for children to convey their perceptions to adults in a meaningful way, and for adults to gain an insight into matters or experiences which affect children’s lives. Write and draw is one participatory method that has been used as a stand-alone task or as part of a wider set of research methods in child development, sociology, psychology, anthropology, health promotion, and education-based research. Write and draw has also been used to investigate children’s perceptions of exercise and sport,23 sport education,24 and learning physical education skills.25 Write and draw (and its variations) enables children to demonstrate thinking at their own levels of cognitive development,26 to express opinions and views as well as providing an insight into their belief systems. Practically, this can be achieved by listening to children as they draw and paying attention to their narratives. This process “records the journey of the construction of meaning and provide the insight into the children’s understandings and perspectives” (p.219).27 Researchers using the draw and write technique have offered substantial critique on its ethical issues, methodological and analytical limitations.27–29 Backett-Milburn and McKie28 note that a technique like draw and write has the potential to tap into emotions sometimes more powerfully than the spoken word. . . . It is vital to reflect on whether participant methods such as drawing in fact cause children to reveal more than they might otherwise choose. (p. 395)

Administration issues, or the process by which the children are instructed when and how to complete the task, have been raised within the literature. Specifically, questions relate to whether the children would draw what they found easy to depict, whether recent lessons or experiences (such as recess in the case of the present research) would affect the process. In addition the influence of proximity to friends when undertaking the task, the length of time taken to complete the activity, or a desire in their efforts to please their teacher/parent/researcher based on the premise of asymmetrical relationships can also affect the process. Broadly speaking within write and draw analysis researchers have noted the tendency to under or over analyze the data produced. For example, the use of the drawing alone (and thus simply the end product of the drawing and a representation of physical elements) is in contrast to the more comprehensive analysis of narrative elicited from producing the drawing. Other considerations include using labeling or unguided writing (perhaps through a scribe in younger age groups) as a source of data and the quantification of the picture content. The use of the picture-associated words of children verbatim is seen by some researchers as essential together with practices such as member checking to ensure no interpretation from an adult. Typically, pictures and words27 or segments of verbatim transcript30 have been presented however other researchers have subjected data to thematic analysis systematically and objectively coding qualitative data into categorical data, extracting patterns/themes and organizing observations.31,32

Therefore, the aim of this study was to use write and draw techniques to examine children’s views, experiences, and perceptions of school recess time. Such contextual information will first, enable researchers to understand recess from a child’s perspective, and second inform the development of recess strategies aimed at increasing physical activity levels.

Methods

Participants

Three hundred and twenty-three children (179 boys, 144 girls) age 7–11 years from 3 primary schools located in areas of high social and economic deprivation in one major city in the northwest of England returned informed written parental consent and child assent to participate in the project. All schools were participating in the Liverpool Sporting Playgrounds Project (LSPP), which investigated the impact of a playground markings and physical structures intervention (Zoneparc) on the physical activity levels and behaviors of primary school children during school recess.14 All participating schools had a playground that consisted of a tarmac surface area. Two schools had grassed areas, though children were not allowed to play in these areas. The playgrounds varied in size and layout however all schools provided small pieces of portable equipment (eg, soccer balls, bats, jump ropes) for use. Teachers supervised the morning and afternoon recess times, while lunch time recess was supervised by midday assistants.

For the purposes of the research children were grouped into school Years 3 & 4 (8–9 years) and 5 & 6 (10–11 years). When Years 3 & 4 were at lunch, Years 5 & 6 played on the tarmac area (and vice versa). Once children had consumed lunch, they returned to the playground until the conclusion of lunch time recess. All children had access to the playground during morning and afternoon recess time. Data were collected from the LSPP control schools at baseline (between 2003 and 2004).

Measures and Procedures

All children completed the write and draw task during the morning registration period or as soon as practically possible afterward with no teachers reporting any difficulties in completing the task during the allocated time. The questionnaire was completed before morning recess in an attempt to reduce the influence of recent experiences on their thoughts and perceptions. For the teacher this period represented a time when the children would usually be engaged in seated classroom activity and the timing was of minimal disruption. The write and draw was administered during morning registration. The write and draw questionnaire was single sided and contained 3 sections. Two statements ‘what I like about playtime is . . . ?’ and ‘what I dislike about playtime is . . . ?’ were
 answered on lines below the statements to indicate to the children to write here. The term ‘playtime’ was used on the instrument as opposed to recess. A large box titled ‘what playtime means to me’ offered the child an opportunity to draw, write, or present a combination of these to answer the question. Verbal instructions were given to the children by their class teacher and one of the coauthors. No written instructions were provided to minimize distraction from the task. The children were informed that the research team were interested in their overall experiences of recess, the task would be independent (not completed in conjunction with peers), anonymous (to encourage them to express their thoughts and views), and that they only had to indicate their sex and year group age at the top of the sheet. The task sheets were submitted in a confidential envelope for collection by the researcher. The completion of the task took on average between 30 to 45 minutes and teachers noted that the majority of children enjoyed the task although some children wanted to provide more detail or take more time coloring in the pictures than was permitted.

**Data Analysis**

A form of content analysis was used to explore the ‘likes’ and ‘dislikes’ data and involved the production of pen profiles. This approach has been previously used in qualitative work involving young children as the participants. Pen profiles provide an efficient representation of key themes from data analysis demonstrating examples of verbatim data and frequency data as opposed to all raw data themes recorded using more traditional content analysis procedures. Quotations and pictures were subsequently used to expand the pen profiles and highlight emerging themes.

Triangulation of the analysis occurred through presentation of the profiles together with associated verbatim/illustrative material by the third author to 2 members of the research team. These authors then critically questioned the analysis and interrogated the data independently tracking the process in reverse from the pen profiles (or outcome) to the write and draw data sheets (data source). This process continued until an acceptable consensus had been reached by the group. Methodological rigor, credibility and transferability was achieved via verbatim transcription of data and triangular consensus procedures. Dependability was demonstrated through the comparison of pen profiles with verbatim/illustration data and triangular consensus processes.

**Results**

Two hundred and ninety-nine children (Years 3 & 4, n = 134; Years 5 & 6, n = 165) completed the task. Blank returns were due to children being absent from school on that day. The following quality measures were used in the analyses of the data. Drawings needed to be a legible representation of people, events, and/or places labeling (using words) identifying factors (names, place, activity, etc) and/or a denoted interaction or association. Table 1 summarizes the completion of this questionnaire task by picture and labeling.

The following procedure and terminology were adopted to analyze the questions ‘what I like about playtime is . . . ?’ and ‘what I dislike about playtime is . . . ?’. Responses to these statements were classified as a written ‘report.’ When children reported more than 1 like or dislike, the reports where categorized to ‘marks’ in relation to a specific theme (ie, play, games, environment). A ‘mark’ refers to where participant ‘reports’ were identifiable with a ‘theme.’ In most cases 1 report identified more than 1 theme and subsequently more than 1 mark. For example the report “I have lots of fun with my friends,” would require marks for more than 1 theme (both interaction and fun).

**Years 3 & 4**

One hundred and thirty participants completed the ‘what I like about playtime is . . . ?’ section (boys n = 70 girls n = 60), and 245 reports were extracted with 1 indefinable entry and 329 marks on specific themes within the data analysis. Figure 1 illustrates the composite pen profile with play (n = 93) and social interaction (n = 91) as the highest frequency themes.

One hundred and nineteen participants completed the ‘what I dislike about playtime is . . . ?’ section (boys n = 55 girls n = 64), and 174 reports were extracted with 3 indefinable entries. There were 262 marks from reports on specific themes. Figure 2 illustrates the composite pen profile with social interaction (n = 113) and bullying (n = 68) the most frequently referenced themes.

**Years 5 & 6**

One hundred and forty-seven participants completed the ‘what I like about playtime is . . . ?’ section (boys n = 76 girls n = 68), and 297 reports were extracted with 0 indefinable entries. There were 364 marks from reports on specific themes. Figure 3 illustrates the composite pen profile with games (n = 130) as the most frequently cited theme before play (n = 93).

<table>
<thead>
<tr>
<th>Table 1 Write and Draw Task Completion by Section</th>
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<tr>
<td>Likes</td>
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<td>Year 5 &amp; 6</td>
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Figure 1 — Pen profile for year 3 and 4 ‘What I like about playtime is . . . ?’

Figure 2 — Pen profile for year 3 and 4 ‘What I dislike about playtime is . . . ?’
Figure 3 — Pen profile for year 5 and 6 ‘What I like about playtime is . . . ?’

Figure 4 — Pen profile for year 5 and 6 ‘What I dislike about playtime is . . . ?’
Discussion

The aim of this study was to use a write and draw technique to examine children's views, experiences and perceptions of recess. Years 5 & 6 completed a higher percentage of drawings associated with the task than those in Years 3 & 4 who engaged in both labeling and also offered statements ‘in the box’ more frequently than their older counterparts. Drawings ranged from depicting single events to a range of activities and interactions with associated ‘labeling’ (eg, Figure 5).

The pen profile data revealed a shift in traditional forms of play in Years 3 & 4 to more structured games in Years 5 & 6. Football was the dominant activity and proved both a negative and positive influence in this theme. Children reported an appreciation of being outdoors for recess and also an awareness of how the physical environment (playground appearance and greenery), provision/absence of equipment/activity, and physical activity (eg, Figure 6) influenced their recess experience. Social interaction was the most frequently cited theme across both 'likes' and 'dislikes' of recess and dominated the perceptions of recess across both groups.

Recess provides children with a unique context to interact with their peers on a daily basis. Gender differences have been reported, with boys citing playing with friends and girls talking with friends as major reasons for enjoying recess. Our data support these previous findings to some extent, though social interactions were less cited, particularly by boys in the older group where football related activities required fewer social interactions. Conversely, a lack of social interactions was also reported as one of the reasons that children did not like recess, particularly by girls, highlighting the importance of recess for promoting socializing with others. Overall, recess provided opportunities for children to develop friendships, social skills, and social networks, which are essential for children's cognitive and social development and adjustment to school. Our data suggest that these opportunities are valued by the majority of children but that negative interactions linked with behaviors associated with bullying can affect the recess experience. Recent suggestions to reduce recess time would provide fewer opportunities for children to interact and experience positive social interactions.

Figure 5 — Drawing from Year 6 girl illustrating a range of playtime activities and labeling.

Figure 6 — Drawing from a Year 4 girl illustrating direct reference to exercise.
and find strategies to overcome negative interactions. Practically, recess also provides an opportunity to identify negative behaviors associated with bullying and allow timely and direct intervention from adults to develop children's awareness and motivation to overcome negative behavior. The data highlighted examples of this and infers that the draw and write methodology was sensitive in design and administration to allow the disclosure of bullying.

In the current study, being able to engage in games was linked to children's liking of recess and this was more commonly cited by the older rather than younger age group. In contrast, play was more commonly cited by the younger group. Pellegrini\textsuperscript{38} noted that play is typically engaged in by younger children with benefits related to novelty and creativity, while older children engaged in games that are governed by agreed sets of rules (e.g., football). In our data Years 5 & 6 girls cited examples of

![Figure 7](image1) — Drawing from Year 5 girl illustrating ‘making up’ games.

![Figure 8](image2) — Drawing from a Year 3 boy illustrating football.
‘making up games’ that were creative and spontaneous in nature (see Figure 7).

Of the more structured games played, football (soccer) was most commonly cited. Data from boys and girls in Years 3 & 4 suggested a positive regard of football games when asked about what they like about recess (see Figure 8).

While football was often cited as a reason for enjoying recess by both boys and girls, some year 4 children expressed negative perceptions regarding the dominance of football in terms of playground space and resultant conflicts between children. Year 3 children did not report football as a dislike, possibly due to the fact that the school provided a separate area for them during play. This suggests that dedicated playground space based on year group may be key to positively managing behavioral problems associated with football. Both Years 5 & 6 children expressed a positive perception toward football although some children (mainly girls) were more negative. This supports previous research concerning gender segregation in playgrounds, where boys often dominate football and thus the available playground space for this game. Consequently, this often leads to the marginalization of (the majority of) girls to small groups situated on the periphery of the playground, resulting in dissent and discontent (see Figure 9). The more equal division of playing space, specifically in the older-aged children (ie, years 4, 5 and 6), may reduce behavioral issues associated with this discontent. Further, as restricted space per child is associated with sedentary time, this strategy may also increase physical activity levels in children during recess particularly in girls.

Previous research has suggested that as children grow older, the size of their social groups at recess increases. On the other hand, Blatchford et al found that girls were also more likely than boys to dislike recess due to having no-one to play with or nothing to do. While our data support previous findings, we further suggest that these concerns were common across boys and girls, and greater in older children. Since aggressive behaviors displayed during recess have been linked to boredom and disputes, we suggest that schools could improve the quality of recess, by providing equipment or organizing separate areas for dominant activities to allow children to enjoy recess. However, consideration needs to be given to the space available, appropriate adult supervision, and equipment provided to ensure that girls and boys have similar opportunities to engage in positive play during recess time.

There are several limitations to this study that warrant attention. First, as data were collected from low SES schools in one small area of the UK, the data may not be generalizable to other schools and settings. Second, offering only a drawing or question responses (ie, one without the other) may not be ‘write and draw’ as is typically defined, though arguably this approach invoked a sense of choice and thus allowed children to engage using their preferred response that were generally legible. On occasions, children wrote responses to questions in the draw box and as a result did not follow the instructions, although such incidences were minimal.

Figure 9 — Drawing from Year 6 girl illustrating conflict of space and perceptions of activity.
Conclusions
This study used a write and draw technique to explore the perceptions of children’s recess experiences. Both responses to the statements and drawings offered insightful data as regards this experience and highlights the approach as an appropriate means for collection of such data. The study results demonstrated a shift from traditionally defined play in Years 3 & 4 to more structured games in Years 5 & 6. As a specific activity football was dominant and proved both a negative and positive influence on space, social interactions, and contributing to physical activity. Children reported an appreciation of playtime being outdoors (and thus they felt detached from the classroom environment) and how the physical environment and provision/absence of equipment/activity influenced their recess experience. Social interaction was the most frequently cited theme across both ‘likes’ and ‘dislikes’ and dominated the perceptions of playtime across the cohort. The disclosure by some participants regarding bullying and physical activity as an appropriate means for collection of such data. Research and policy on children’s play. Child Dev. 2009;3:131–136. doi:10.1111/j.1750-8606.2009.00992.x
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