

## **'What do you mean you don't like it?' Interpreting children's perceptions of the playground as an aid to designing effective playspace.**

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A paper for the 2<sup>nd</sup> International Toy Research Conference, Halmstad (Sweden) June 1999

*This paper is based partly on the results of a research project carried out on behalf of the East Riding of Yorkshire Council in the United Kingdom which resulted in nine recommendations being made for the planning of new and the development of existing public playgrounds in the authority. It has also been based on much of the continuing experience the author has developed in working closely with children in exploring how they play, where, and with what - when they not under the influence or the prying eyes, of adults. The paper will describe why some of these recommendations have been made, how they have been put into practice on a pilot project, and what, if any, changes it has made to children's use of public playgrounds in East Yorkshire.*

In 1990 Hull City Council, a local authority in the United Kingdom, carried out a review of all the public playgrounds it then owned and operated (Hull 1990). As well as carrying out an assessment of what general state each playground was in the council was interested in discovering just how many local children were using their local neighbourhood playground.

The study showed that most of their playgrounds were used on a regular basis by only 3% - 6% of local children, and that even those playgrounds that were considered to be 'reasonable or better' attracted figures of only upto around 20%. As a comparison, it was noted that 52% of children used the streets and pavements around their own homes as their most regular play space. Although these might be considered to be very disappointing levels of interest among local children the figures are typical of public playgrounds across the UK and this is further compounded by research that has shown that once children do attend a public playground their stay may be short (see Heseltine 1994 for summaries and sources for a number of research projects on this topic).

Nor is this a recent phenomenon. The research project *Children at Play* carried out by the UK Department of the Environment in 1973<sup>1</sup> made a major observational study of children at play in built up areas across England and Wales. The study recorded figures of between 2% - 13% of all observations of children at play to be taking place on public playgrounds compared with upto 42% of observations that showed children at play on roads and pavements.

Yet the cost of building and maintaining public playgrounds can be a significant spending point in the budget of a local authority - especially those playgrounds subjected to high level of vandalism. One recent playground built by a neighbouring authority to Hull City Council, for example, cost around £90,000 to build and has estimated annual running cost of around £4,000. It might be felt by some that the value for money element that exists in such high cost facilities provided for a group that seems to be disinterested in making use of them might be better spent elsewhere. Given the increasing pressures of space and freedom of movement to both urban and rural children in the UK, however, the loss of even a highly underused space could further and significantly lessen the availability of places where children *could* play.

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<sup>1</sup> This research project, which was carried out by Mia Kellmer Pringle, Judith Littlewood and Ruth Sale, is to date the largest single piece of research that has been carried out into the play habits of children in the UK. It involved making over 50,000 observations of children at play on 15 housing estates in England and is amongst the earliest examples of the UK government taking an interest in children's play.

Perhaps the question that should be asked instead is why is it that children seem generally disinterested in public playgrounds; and is it possible to increase the usage of a playground and persuade children to stay longer? The answer to this latter question would seem to be yes.

## Play Value

Although there have been considerable advances in the design of public playgrounds in the UK over the last 20 years or so, due partly to the influence of play equipment manufacturers from other European and Scandinavian countries, much of the emphasis has been on improving safety. However,

Playgrounds certainly need to be safe ... [but] 'safe' design does not necessarily mean 'good' design. The equipment and activities on playgrounds should have positive play value, supporting the types of play engaged in by children... (Rarte 1990)

'Play value' is defined as being a method of measuring the variety and quality of play experiences that a playground provides across a range of different user groups. The Hull City Council research quoted above found that those public playgrounds with a play value score of '*reasonable or better*' attracted the higher use figures among local children and demonstrated that there was a clear relationship between child usage and overall play value score.

But although use of measuring play value in designing new and developing existing playgrounds in the UK has been around for some time good examples of its application are few and far between. Even when methods of measuring play value have been employed it has been largely concentrated on "...proprietary equipment providing for purely physical sensations" (Debbage 1990) ignoring the less physical play experiences that playgrounds do/could provide. Even more interesting is the scarcity of projects that have employed children in making the play value assessment.

Robin Moore has made the point that "We have no business making policy and spending money on facilities for children until we have an understanding about what parts of the environment children actually use, and why" (Moore 1990). It was with this in mind that when the East Riding of Yorkshire Council commissioned me in 1998 to make an assessment of the public playgrounds it owned with a request that recommendations should be made for each specific playground and general recommendations for future developments I was concerned from the very earliest stages of planning that children should be involved.

## What do you mean, you don't like it?

The recommendations generated by the study came from making two separate audits of each public playground: firstly, a play value assessment checklist was used to measure the variety of available play opportunities of each playground in five categories:

- PHYSICAL PLAY OPPORTUNITIES (climb, swing, balance, slide, etc)
- DEVELOPMENTAL PLAY OPPORTUNITIES (opportunities to manipulate, co-operate, be challenged, etc)
- ENVIRONMENTAL PLAY OPPORTUNITIES (mounds, hollows, grass, trees, etc)
- STIMULATION (variations in colour, texture, levels, etc)

- OTHERS (a significant category including access points, paths, seating and lighting, etc)

Additionally, each category was further assessed for three specific user groups<sup>2</sup>:

- LITTLIES, meaning children of pre-school age, but realistically those between about 3 and 7 years
- MIDDLIES, those from about 8 years upto about 12 years
- BIGGIES, those from about 12 years upwards.

Each of these specific user groups has different needs and wants from a public playground but it must be recognised that defining these groups within rigid age boundaries simply does not work - there is, therefore, a bit of a fuzzy boundary between each user group.

Although an opportunity was taken to speak to children and adults using each playground whilst the first part of the audit was been completed, children were not directly involved in the process at this point. However, in the second audit they were. This was carried out by a group of 24 school age children from around the Riding who, in addition to identifying popular and unpopular parts of each playground, awarded each site a star rating of between one and five stars.

The importance of involving this group cannot be emphasized enough: their involvement was not seen as a token gesture but as an integral part of the whole project and, although the first play value audit corresponded well with the children's results, there were a number of interesting and significant differences between the two audits. In terms of the 'Ladder of Participation' revised by Roger Hart, the project reached the fifth out of eight possible degrees of child participation - 'Consulted and informed'<sup>3</sup> - but aimed to reach much higher in the eventual recommendations proposed.

However, some of the results of the survey did not come as a great surprise. The children on the audit groups, for example, identified swings as been by far the most popular piece of play equipment across the playgrounds. This has been found to be the case with the majority of studies into children's use of large play equipment (Heseltine 1994), but it was noticeable that the three different user groups were interested by slightly different types of swing.

Littlies, the youngest children in the study, were usually satisfied with any example of swings scaled for their use no matter what type they were; whereas the middlies were much more interested in big swings - the higher and more adventurous they were the better. Biggies, on the other hand, were less interested in big exciting swings and more so in swinging features that required a degree of co-operation in order to get the most from them. Scale swings and cantilever swings, for example, were popular with this group - so were the examples of improvised rope swings that had been attached to trees in a number of playgrounds by local children.

Second on the list of most popular play equipment were roundabouts. At first, I classified roundabouts designed for younger and older children separately on the play value checklist but after the children's' audit had begun I stopped doing this: they simply made no distinction between the two. Even adults with younger children at the playgrounds seemed to make no distinction between was supposed to be for toddlers and what was not. Interestingly, one playground was given a whole extra star just on the existence of an

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<sup>2</sup> It was also planned to include a fourth category 'parents/careers' as a separate user group but time and resources did not allow for this.

<sup>3</sup> This degree is further defined as "The project is designed and run by adults but children are consulted, they have a full understanding of the process and their opinions are taken seriously."

old (and big) wooden roundabout - a roundabout that was so big that it might have been felt inappropriate for very young children.

One other interesting point: only one example of a roundabout that was designed to be used standing-up was present in any of the playgrounds. This also proved to be the only roundabout that received no mention from any of the children on the audit group.

Third on the list came seesaws. It is interesting to note that these three features: swings, roundabouts and seesaws which were by far the most popular pieces of play equipment, are all features that move, suggesting that control over the equipment may be important (this seems even more so with the biggies with their preference for co-operative features). This led to one of the studies Recommendations that read,

Play areas should provide equipment that moves: swings, roundabouts and seesaws. Where older children and young people are catered for moving equipment that requires a degree of co-operation should also be provided.<sup>4</sup>

A number of adults have expressed surprise at the fact that small multi-play features (in effect climbing frames) did not prove particularly popular amongst the audit groups. At least part of the reason for this might be that small multi-play features actually offer very little in terms of play value, even in climbing opportunities. Noticeably, these very small features were not mentioned among the favourite pieces of equipment at any of the playgrounds in the study.

There were, however, a number of multi-plays that did receive a mention and there seem common elements that led to this. Firstly, where the feature offered multiple levels, platforms, heights, etc, it proved popular and a number of complicated and long lasting chase games were played on these by the audit groups (these features also scored well on the play value checklist). Amongst the littlies, multi-plays that had play panels creating play spaces under the features proved an attractive point; as did the presence of items that could be manipulated (i.e. pushed, revolved, sprung, etc). The middlies were very keen on features that included rope, and at one playground in particular a multi-play feature with two separate rope elements was popular amongst this group. The biggies, however, seemed generally uninterested in any multi-play/climbing frame.

One additional and very interesting point: only two examples of a multi-play feature were recorded as being in the top two most popular pieces of play equipment at a playground. In each case, the multi-play included a sliding metal hand bar that could be used to move from one platform to another - yet another piece of equipment that moves.

This led to the Recommendation that,

Small Multi-Play features should be avoided. Such features as are provided should offer a range of climbing opportunities, particularly with rope features, and should provide multiple heights and levels. Multi-Play features for younger children should provide opportunities for social and developmental play under the feature, by such things as play panels, play houses and things that can be pushed, pulled, revolved, etc.

One final point about the use of small multi-play features. A criticism of play equipment manufacturers in producing such a feature should not be implied from this recommendation: the majority of multi-play features are produced as part of a modular system that can be small or quite extensive. However, it seems that local authorities are tempted to provide a small multi-play feature on cost grounds (and sometimes on available space), but the study suggests that this may be a false economy.

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<sup>4</sup> Although one of the general recommendations of the project was that older children and young people should 'always' be catered for, this does raise a number of issues. These issues, however, are not really within the remit of this paper.

Despite the fact that swings, roundabouts, seesaws and multi-play features (amongst others not mentioned in this paper) were consistently mentioned as been the most popular piece of play equipment on a public playground, they were not the most popular features overall: this was reserved for natural features.

Despite the fact that that in nearly all cases the landscape features, grass, flowers, shrubs, bushes and trees were established in the site as a purely aesthetic element (and in some cases as a defensive element - spiky bushes, for example) it seemed to be these elements that interested the children on the audit groups more than any play equipment. In fact, it was noticeable that on arriving at a new playground the children would quickly run off to try pieces of play equipment, often returning to pieces for a second and third time, but once they began to discover the natural elements of the site they remained there.

Quite often it was them who found evidence of trail making and den building amongst trees and bushes, and them that found piles of twigs and leaves that had been gathered by other children. This too has been seen by a number of other studies - play equipment seems to attract children to a site but natural features persuade them to stay. Perhaps significantly, it was environmental play opportunities that the playgrounds of both Hull City Council (Hull 1990) and the East Riding lacked the most.

Some playgrounds that were very poor in terms of the play value checklist were scored highly by the children's audit purely on the existence of particular natural features: at one site, for example, where all play equipment had been removed due to excessive damage, the children still awarded the site Two Stars on the strength of some very good climbing trees. And at one almost brand new site the children ran excitedly into the playground only for one to exclaim, "Oh! There are no bushes." This led to an agreed reduction in Star rating.

The presence of mounds and hollows, however, was not as popular amongst the children in the study as I had expected (in fact this was one of the biggest surprises of the results). In the play value checklist, playgrounds with mounds and hollows scored well but the children's survey only rated them highly if the landscaping was connected to planting - and it was the planting that proved to be the attracting feature. That is not to say that landscaping did not prove popular but that its appeal had to be connected with other natural features for it to be fully recognised. This is interesting considering that all too often,

... 'natural' play areas have been destroyed as they do not have the same appeal to adults [as children] ... many areas of apparently unkempt appearance with long grass, scrub, humps and hollows have been levelled and neatly manicured to provide little or no play value. (NPFA 1987)

However, one natural feature proved even more popular than any planting: water. In the UK we adults seem to have a very negative image of water and children - the two should simply never mix. But whereas it is true to say that death by drowning accounts for the second largest category of child fatal accidents in the UK for the under 5's, it is the lowest of seven categories amongst children of school age (Dettol 1994).

Water was present in only three of the public playgrounds studied but at all three it was voted as the most popular part of the whole site. At one of these three the water element was formed by a pebble beach beside the Humber Estuary where one child said, "if we include the beach, I give this one 100 stars!"

Of all the playgrounds that received the highest scores by both the play value checklist and the children's audit, natural features and access to environmental play opportunities proved to be significant leading to the Recommendation that,

Above all, play areas should provide opportunities for environmental play: mounds, hollows, long and short grass, medium and low planting, bushes, trees and water.

This should not be seen as a purely aesthetic element of the play site but as something to be played in and with.

### **Yes, but why don't you go there often?**

It was part of the hypothesis for the study that children would be attracted to public playgrounds by play equipment but be persuaded to stay by natural features. In this respect the results of the children's audit provided confirmation. However, there was one additional element that proved even more important to deciding whether children would visit a playground or not: where it was located.

The UK National Playing Fields Association, recognising a mountain of supporting research evidence, recommends that local play areas should be within 400m of children's homes and not require the crossing of any major obstacles (roads, rail lines, etc) to reach it. This is simply because it has been seen that children will rarely travel more than around 400m on a regular basis to visit a playground, or any other regular play site.

However, many local authorities face,

The problem of where to locate play areas [which] is widespread, and often results in play areas being pushed onto land on the edges of estates, away from main thoroughfares and house frontages, which would otherwise afford a level of informal community supervision. (Whewey 1997)

Locating these playgrounds on the edge of a built up area produces two barriers to children visiting the site: firstly, a significant part of a 400m catchment around the playground will have no housing within it reducing the potential number of users and increasing the distance that those on the outer edges of the catchment might have to travel to get to it. But secondly (and as mentioned in the quote above), a site with few paths and roads - where friendly adults might occasionally pass along - and little overlooking housing - where adults might be able to see the playground from their homes - contributes to a site in which children do not feel safe. This is more likely if the playground is located on an edge of a housing area rather than among it.

A number of the playgrounds in the study were in park settings and as such tended to be outside the 400m distance from any potential users homes. This also creates a situation similar to that of sites on the edges of housing areas. At one of these sites a member of the children's audit group looked visibly uncomfortable. When questioned he said (I paraphrase) 'I don't know what it is, but I don't feel good here'. A girl stood next to him agreed.

Similar comments were made by others when visiting large, open sites and at sites that had only a single entrance and exit point. It is also significant that these sites scored poorly on the play audit checklist for informal adult supervision (adult used paths and overlooking housing). There also seemed to be a definite connection between a poor informal supervision score and the degree of vandalism and graffiti - another element that seemed to put children off (possibly because that might signify people that they may be afraid of). Only one of the playgrounds that had extensive damage due to vandalism had an informal supervision score of reasonable or better.

However, it is very important to note at this point, that what was often reported by adults to be vandalism on public playgrounds actually turned out to be damage caused by extensive wear and tear. It may also be that although vandalism does prove an issue with children other issues seem to take precedence. For example, while visiting one playground that had considerable signs of vandalism, including freshly daubed paint all over, the children on the audit walked around the site showing great concern. This all disappeared, though, when one discovered that, "Hey! The roundabout doesn't work."

These findings led to the Recommendations that,

Play areas should be near to children's homes, be accessible and offer a degree of informal supervision.

and that,

Play areas should have more than one entrance/exit point; access paths on site; and communal, sheltered seating for adults and children of all age groups.<sup>5</sup>

## The Pilot Project

In order to assess the validity of the study results and the recommendations it had generated, an existing public playground that required development work was identified to provide a pilot project. The playground, serving a well contained housing estate with around 60 potential users (aged between 3 - 16) was located inside a rectangular area surrounded by housing but contained only equipment for littlies - the largest single age group on the estate being middlies.

So far, a set of junior swings and a large roundabout have been added to the site in the opposite corner to the existing toddler swings, a high climbing frame (rather than a multi-play) with a spiders web of rope forming a key element has also been added, and a new play house for littlies added to make up for a lack of developmental play opportunities. These have all been linked together with a new footpath leading in two different directions and leading to two new access points.

For biggies, a large, four-person scale swing has being set up as well as an enclosed hard surface area for ball games and roller skates with attached seating (these latter two being part of recommendations not remarked upon in this paper); planting in the form of flowers, new bushes, shrubs and long grass has also been established (and more natural features, including fruit trees, are planned).

These developments have been made in co-operation with the potential users in line with the final Recommendation the study made that,

The creation of new play sites and the development of existing sites should involve potential and existing user groups, in particular children. Children should be consulted not only on what they want from their local play site but also on where individual features should be established.

The point about users choosing where features should be established is very important. In the case of the pilot study the users decided that only the features aimed at littlies and middlies should be in the existing area inside the rectangle of houses; but, they said, the features aimed at the biggies would be better established on a grass triangle area about 50m further south of the existing playground - a site already popular as a place to play for this user group.

And has the project been successful?

So far, usage of the pilot project play site after around one-year since developments were made seems to be achieving a good 60% plus of local children using the site on a regular basis (using the same measure as and scoring considerably higher as the studies noted at the start of this paper). However, there is a bit of a cheat involved in this figure which is explained within the final conclusion.

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<sup>5</sup> The reasoning behind the use of seating has not been covered in this paper.

## Summary & Conclusion

It appears that regular usage of public playgrounds in the UK by children is relatively low and has been so for some time despite the fact that improvements in design have taken place over the last few decades. However, those playgrounds that have a high play value score also receive an increase in the number of regular users.

The reason for this is undoubtedly that high play value means that a playground is providing those elements that children within different user groups want and need from a local play resource. The inclusion of play equipment that moves, multi-play features that provide multiple play opportunities, and natural materials, including water will persuade children to visit a playground more often and stay longer. But to be truly successful a playground must also be located in the right place.

To do that, playgrounds should not only be built with children's developmental needs in mind but also with an appreciation of how and where children of different ages actually play. In other words, not necessarily what children should or could do but what they actually do. There are design rules that can be adopted that increase usage - but perhaps the most significant point to have been reinforced through this study is that public playgrounds are artificial, adult concept play spaces.

Children live and play in the whole environment - not just in those spaces designated specifically by adults for them. It is in this concept that there is an element of cheating in the high usage rate achieved on the pilot project above: the two new playgrounds have been development/established in the places that the local users themselves chose - because these are the places they already play in. What we have done is not actually to persuade children to come to a new public playground but have moved the public playground to where the children already play.

As Robin Moore states,

... the location and character of the landscape surrounding each playground or equipment area is just as important as the design of the apparatus itself. (Moore 1990)

The challenge in increasing the use that children make of public playgrounds is to extend the boundaries, both physical and conceptual, of what constitutes an adult provided, designated 'playground' into creating 'play space' - a place indistinguishable from the rest of the environment because it has no artificial boundary indicating that *'this is a place for you to play in'*. It just so happens that pieces of play equipment and natural features deliberately provided for play are added to enhance the play opportunities present in the general built up environment. This play space is, in effect, all the places where children play - not the places where we adults want them to play.

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June 1999

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This paper was originally presented at the 2<sup>nd</sup> International Toy Research Conference held in Halmstad, Sweden in 1999. A version of this paper was also published in 'Toys as Communication: Toy research in the late twentieth century' (part 2) (pp343-356) edited by Anders Nelson, Lars-Erik Berg and Krister Svensson (2003) isbn 91-974811-2-2. It was reformatted and published on [www.thought-crime.eu](http://www.thought-crime.eu) in August 2011.

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**Bibliography**

- Armitage, Marc. (1998) *Play Value: an assessment of the available play opportunities provided by the fixed equipment play sites owned and operated by the East Riding of Yorkshire Council*. Beverley: East Riding of Yorkshire Council. [internal report].
- Debbage, Peter. (1980) *Play Areas in Thamesdown*. Swindon: Borough of Thamesdown Arts and Recreation.
- Department of the Environment. (1973) *Design Bulletin 27: Children at Play*. London: HMSO.
- Dettol Care Network/Child Accident Prevention Trust. (1994) *The 1994 Dettol Report: Child accidents in the UK*.
- Heseltine, Peter. (1994) (2<sup>nd</sup> Edition). *A review of playground and related surveys and studies*. London: National Play Information Centre/The Sports Council.
- Hull City Council. (1991) *Children's Play Research Project*. Hull: Hull City Council Leisure Services Department, Recreation and Community Division. [internal report].
- Moore, Robin. (1990) *Childhood's Domain: Play and place in child development*. Berkeley, California: MIG Communications.
- National Playing Fields Association. (1987) *Self-build play equipment*. London: NPFA
- Ratte, D.J; Morrison, M.L.; and Lerner, N.D. (1990) *Development of Human Factor Criteria for Playground Equipment Safety*. US Consumer Product Safety Commission.
- Wheway, Rob; and Millward, Alison. (1997) *Child's Play: Facilitating play on housing estates*. York: Chartered Institute of Housing/Joseph Rowntree Foundation.