Pupil Participation in School Design

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Abstract

Over the last decade, UK policy interventions relating to the (re)design of schools have stressed the importance of pupil participation in programmes such as Building Schools for the Future, Academy Schools, and Primary Capital Funding. A two year project was conducted to explore the possibilities for, and present state of, pupil involvement in classroom (re)design and design decision-making. Through in-depth qualitative data drawn from pupils, school staff, Local Authority officers and other stakeholders, the relationships and tensions between the ideals of participatory design as expressed in national policy statements and the ways in which such participation is happening in practice was investigated.

Keywords

Participatory design, schools, children, ergonomics.

The design of school environments affects the activities and outcomes of teaching and learning. School buildings should make a positive contribution to the academic wellbeing of students, and prmote social interaction, a sense of community and inclusiveness. The Commission for Architecture and the Built Environment stated "*…we know that good design provides a host of benefits. The best designed schools encourage children to learn.*" (DCMS, 2000).

Price Waterhouse Cooper (2001), found a positive relationship between capital and performance and more specifically between the physical school environment and pupil performance, stating that "*The general attitudes, behaviour and relationships amongst pupils and staff are more conducive to learning in those schools which have had significant capital investment*".

Whilst acknowledging the importance of school environmental design on those who spend a large proportion of their time there, UK (and worldwide) legislation has also recognised the need for children to be involved in the design of the spaces they inhabit. UK policy shows (i) greater recognition of the diversity and distinctiveness of children and young people's needs; (ii) a growing imperative for children and young people's participation in decision-making and practices regarding their everyday lives and contexts.

Three major lines of capital investment for school buildings have been provided (i) academy schools; (ii) Building Schools for the Future (BSF); (iii) the Primary Capital Programme (PCP). User involvement forms a cornerstone of these initiatives, as evidenced in the following quote.

> ***"****Putting the user experience at the heart of all we do is not the same as saying we simply respond to user demand. Our and our partners' role is to prioritise, ensuring resources are used efficiently and effectively in the wider public interest. We need also to be aware that service users have very different capacities to shape services. …..The key lesson for taking forward the Five Year Strategy is this: failing to understand users in the way we design and deliver services means we are less likely to deliver aggregate improvements in outcomes across the system because we are less likely to be meeting the needs of individual service users"*(DfES, 2006, p.36*).*

In addition to the statutory requirements, pupil participation is fundamental to the UK Government's vision for all schools post-*Every Child Matters*:

> "*There isn't a design blueprint for a school of the future: a variety of models will emerge. The main design challenge facing LEAs and schools is to balance the needs of different users, creating inspiring buildings with functional spaces that are appropriate for new educational developments and new technologies but adaptable enough to cater for the changing needs of the future"..... "[The user is] a key player in the success of a building project. It is very important that right from the*

beginning of a school building project there is proper consultation with the staff and pupils of the school and the wider community. The school and its community must decide what they need and want both for the immediate and longer term future… All potential users in the community should be consulted in order to assess local and individual needs… This approach will help to encourage greater use of the building, develop trust between all parties and add to the feeling of community and ownership… Consultation and feedback should continue through the construction period..... Where work is taking place at an existing school, finding ways of linking the project to the curriculum can benefit pupils and encourage a positive attitude to the work taking place" (DfES/SBDU, 2002, p.63).

Project Overview

This research appraised the extent to which the BSF programme delivered its commitment to pupil participation. The programme asserts that pupils and staff have an active role in the development of the design brief, down to the level of what is needed in each room (DfES, 2004a, p.6). However the guidance relating to the PCP suggests the approach to participation may be more tokenistic than implied in the policy documents.

The following sections provide an overview of the results from interviews with representatives of Local Authorities, observations and interviews in 11 schools at different stages of the BSF programme. The results show tension between the ideals expressed in government policy and the reality of participation; both optimism and skepticism towards participation; the importance of the wider school ethos; and the need for better support for schools undertaking pupil participation.

A qualitative approach was undertaken to understanding the situation in schools, with ethnographic observations, attendance of design consultations or design events and interviews with key stakeholders including Local Education Authorities, pupils, architects and teachers.

Results

Examples of Perceived Benefits of Pupil Participation

Interviews with teachers and architects indicated that those engaged in the process saw the benefits of successful participation as relating to:

1. Improvements to the spaces and day-to-day running of school buildings.

   "*.....pupils come up with really perceptive ideas, that can genuinely improve a space. And a lot of things that come from the pupils are mostly cost neutral. They are not asking for the earth – they are very realistic in what they want"* (Architect)

2. School buildings with local 'character'.

   "Getting the pupils involved was crucial – they're the ones who've really helped us to bring a local 'stamp' to the project" (Headteacher)

3. Greater user satisfaction with the school environment.

   "it is particularly good for pupils to be involved… it gives pupils ownership – you know it makes them feel good because it's their school, their role in that kind of decision-making… It makes them feel more at home in their school" (Teacher)

4. Fostering a culture of trust and collaboration.

   "[This] has been a kind of…. bonding exercise really. It does encourage everybody to be enthusiastic about every aspect of a school… It has brought people together" (Headteacher)

5. Reduced vandalism and 'anti-social behaviour'.

   "Giving the pupils something new, something they have a stake in – it's treating them with respect. It's saying 'we trust you'. Our pupils have responded magnificently. They really take pride in it" (Headteacher)

   "Basically – there's no graffiti in the corridors any more!" (Teacher)

6. Opportunities for teaching and learning.

"We've started to link [the school redevelopment project] into the curriculum in all sorts of ways – numeracy, design… learning about the history of the building and looking at old photos and maps" (Teacher)

7 Enhanced design literacy.

"[Involving pupils in school design] gives them a bit of an insight into different parts of the process – design, budgeting, strategic decisions… It expands their knowledge and hopefully helps them to understand things in a different way" (Architect)

8 Raising learners' self-esteem.

"The input [into the development project] made him [son] feel important. He'd come back and tell me what they were talking about in school: they had discussions… I really noticed a difference" (Parent)

' [a group of disaffected students] realised perhaps for the first time that they could have a voice and they could come up with ideas and that people could listen to them' (Deputy head teacher)

9.Familiarising pupils with new school environments.

"You see a psychological impact of consultation as you start to involve children: it has engendered a sense of ownership, and there was no shock for pupils of moving into new environment, because they already knew a lot about the new building, were prepared to move" (Headteacher)

These comments accord with the vision expressed in government documents. However, the following sections reveal a different impression of the practice of pupil participation.

Interviews with Local Education Authorities

15 semi-structured telephone interviews with conducted with LEA officers responsible for school (re)building and (re)design in randomly sampled geographical locations. These representatives held posts directly concerned with school (re)building programmes – such as Head of Planning and Building for Children's Services, BSF/Private Finance Initiative (PFI) Project Manager, School Site Development Manager. These job titles emphasised the connection between children and education, on the one hand, and asset development and building on the other. Interviewees worked on the (re)building of schools cooperating closely with the school's management team, architects and various consultants.

They were responsible for the development of the project brief and oversaw projects to their completion. Thus, these professionals could comment on the ideal of pupil participation as articulated in policy documents and its operationalisation. From a qualitative thematic analysis of the 15 interviews, four major trends were identified (den Besten et al, 2008).

(1) Pupil participation was disappointing.
LEA representatives were optimistic about the benefits and rationale for engaging pupils yet disappointed with the results of participation. They had more modest and realistic aspirations contrasting with the lofty ideas expressed in policy documents. Examples of comments included:

Pupil participation is hugely desirable and we are striving to achieve it. But so far, the level of influence pupils have had on the final design is probably quite limited.

We realise that both pupils' and teachers' participation is desirable – in general, but it has not been possible to a big extent yet.

Pupil participation is desirable but I'm afraid we have only managed it to a very limited level so far.

(2) *Pupil participation was multiply foreclosed by the complexity of the programmes.* The principal barriers to participation included tight financial budgets and timescales; the complexity of the

programme, funding and stakeholders which meant that participation became lost; lack of clarity and guidelines about how to engage pupils;lack of trained facilitators; large number of pupils in the school who could be involved.

Examples of comments include:

> *The overall process is incredibly complex and very competitive. If pupils were involved to a large extent, the process could have taken a significant amount of their curriculum time. There are a whole lot of criteria of how a school building should be, including guidance from DfES concerning which sort of space should be here and there, what areas of children's outside play should be like, etc.*
>
> *We have planned and built mostly nurseries and early year schools, where children are too young to contribute to the process.*
>
> *Children will not see the benefits as they will have moved on.*
>
> *Students move on, so continuous involvement of one group is difficult.*
>
> *If you talk with one group of students they'll come up with one thing; if you talk to another group of students the next year – they could come up with something completely different.*

LEAs, schools and architects showed a clear willingness to engage children in school (re)design, yet the barriers inherent in the multistakeholder, multi stage, protracted school (re)design process inhibited meaningful engagement with user representatives.

(3) Pupil participation was 'modest'.
Interviewees found that pupils' abilities and interests compromised their participation. This led to negative comments. Suggested improvements were regarded as banal, small-scale, predictable and superficial typically regarding social areas, toilets, and paint colours – but little else. Pupils were viewed as showing little creativity in their recommendations or understanding of design techniques, processes and legislature. This could have been overcome by reframing and extending the questions and information asked of pupils. In order to become more creative, pupils required more guidance, direction and knowledge of constraints. Pilot projects have demonstrated that children can understand complex considerations about finance, engineering, design and planning, and that their learning is neither time consuming nor resource-sapping.

Example of comments included

> *In the issues that came up, there was no real surprise. For example, pupils raised the usual issues of uncomfortable environment: that it is cold here or there….; discussed social areas and toilets. The teachers knew those issues already*
>
> *Pupils contribute mostly to their spaces, such as dining spaces, toilet spaces, indoor and outdoor social spaces: for example, playgrounds and common rooms.*
>
> *In one school, the head teacher got pupils to design toilets – it's very important*

(4) Pupil participation was contingent and local.
Interviewees highlighted a number of locally based issues which presented opportunities and challenges for participation, such as the diversity of schools, school attitudes towards pupil participation, the need to manage expectations. Many LEAs used 'advocacy' (by teachers or other professionals) to replace participation where the latter was deemed inappropriate or impossible.

Examples of comments

It [role of pupil participation] varies from project to project and depends on people involved. In many cases, pupils were consulted and notes of their needs made, but it's a bit of hit-and miss probably, it is not a standardised process.

Pupils fed into the vision side of things and that has altered some decisions.

To summarise, LEA respondents identified a number of barriers to participation which stemmed from two sources. Firstly, the financial, organisational and legal processes inherent to school (re)design. Secondly, the positioning of pupils – and their participation – within those processes, both at national and local levels.

From School Observations

The team spent extended periods in each school, talking to staff and pupils, observing the design and use of facilities and attending design meetings. Results supported interviews conducted with the LEAs concerning the individual nature and ethos of the schools, the varied nature of participation, the complexity and protracted nature of build programmes which means that consultation with a wide variety of end user pupils is unlikely.

Taking as an example the experience of one primary school, Newman and Thomas (2008) related found the following typical strategies used to engage students:

- consultation throughout the visioning process;
- a 'Design your school day' where gifted and talented students led other students in designing and making a model of a chosen part of the new school. This method was also adopted by a secondary school which involved a group of disaffected students, on the verge of exclusion, who produced a design of a bridge they wished to see incorporated into the new school design. There was a clear intention to be as inclusive as possible. An assistant head teacher commented that this group ' *realised perhaps for the first time that they could have a voice and they could come up with ideas and that people could listen to them.*'
- PSHE (Personal, Social, Health and Education) lessons used for discussion about student aspirations for the new build;
- the school council acting as a conduit for student voice;
- questionnaires sent home to encourage family discussion about the school in an attempt to involve the wider community.

Studying these events and similar activities has shown that direct or indirect participation is occurring using different methods such as questionnaires, comment boxes, involving different groups of pupils (such as vertical groups, workshops, student councils) and deals with different design issues – from concept design through to the design of specific spaces, or pieces of equipment (such as window locks). The use of these initiatives is felt to add local character, such as the use of natural occurring materials and local design forms. However the extent of participation is determined by the enthusiasm and knowledge of the staff and the school ethos. Unfortunately, the organisation of consultation and participatory exercises was mostly ill structured, with little continuity observed between consecutive meetings

Despite teachers and school management wishing to use the opportunities afforded by BSF to provide a different approach to curriculum delivery, students found it difficult to engage in questions about how they learn best during consultation. Instead they focussed on more tangible, social aspects of the school, such as dining rooms and common rooms. One head teacher said that this was frustrating but not surprising, as it was difficult even for teachers to imagine what education would be like in the future.

Despite the 'design your school days' having positive outcomes, at the two secondary schools involved , students received no design parameters, for example financial constraints or site information. This often led to the creation of inappropriate designs. For example one group spent the day designing a swimming pool, only to be told at the end that a pool would not be funded. This led to cynicism on the part of many students.

Special needs schools visited other schools to see which aspects their children liked/disliked. The school council visited recently built special needs schools, where adults took pictures of things the children appeared to enjoy. The images were based on adult perceptions of children's enjoyment. Here advocacy was used in preference to participation where staff stressed the need to design for children, using their expertise to interpret the needs of pupils who could not verbally express themselves. In some mainstream secondary schools teachers believed that they knew children's requirements better than the children themselves.

Staff and architects frequently cited 'ownership' as a key benefit to children's participation in school design. Involving children in the process was believed to increase the sense of pride in the school building. As vandalism was a problem in several of the schools it was hoped that this could be reduced by involving pupils in decision making. For example one teacher said

> *'It makes them feel that they've had a part of it, an ownership of it….. we're constantly saying to them this is where you belong, this is your school, we want you here. And I think to be part of it, for any child really, they feel they have some ownership, a stake in it and want to look after it better and maintain it better. I get the impression at the moment that they have no respect for the environment that they're in'*

The idea that participation would foster a sense of belonging was an important perceived benefit of participation, although for the schools in the early stages of BSF it was too soon to say whether this would be achieved . Related to this is the belief that inclusion in design activities may also foster a sense of ownership and involvement in the wider community especially when schools are in deprived areas and are required to act as a community resource. For example one school attempted to involve parents and the wider community by sending out questionnaires to families of students asking how their community needs could be fulfilled in the new school building.

Both architects and teachers felt that participation could provide a valuable insight into young people's perspectives on their experience of school and their needs for new builds. A deputy head teacher explained

> '*I think the advantages are as you get older, we don't see, we're not as familiar with what they find, what young people find, attractive and what their needs are'*

This recognises that children are experts regarding their own experiences and needs, and could offer innovative solutions to issues of particular significance to them. For example, an architect related an occasion where a primary school pupil had approached his head teacher with an idea for a design for a covered area in the playground where children who did not want to be involved in boisterous activities could play quietly. He explained that this solved the problem experienced by many children who felt marginalized when the majority of the playground was given over to football. The boy's experience had led him to suggest a solution that was adopted by the school.

Teachers and architects felt that the involvement of young people in the design process would raise awareness of design issues such as empathy. This was demonstrated at one school which was to be rebuilt as a broad spectrum school, accommodating children who had previously attended a special needs school. Children who participated in a 'design your school' day were keen to provide an inclusive environment, meeting the needs of all users. They attempted to address the issues that children with particular physical impairments would encounter in their daily activities. For example having the school on one level to ensure access for everyone, or to include lifts for wheelchair users.

Lastly, the involvement of young people was believed to foster a sense of achievement which may otherwise be unattainable. This was particularly important for children who do not achieve in more traditional ways. As one architect said

> *'The non-academic kids who will never achieve academically but may achieve lots of other good things, that's where greater engagement should be fostered'*

Perceived Drawbacks

However participation was not without its drawbacks. Many staff and architects were concerned about the raising of expectations and that pupils would be disappointed if their inputs were not realised in the final build. This was exacerbated if only selected children were involved or there was no systematic was of including the student voice. This concern was shared by the management team and pupils at two schools involved in 'design a school' day. Despite the success of the day in terms of inclusion and the production of high quality models, there was a danger that this particular mechanism may promise more than it can deliver as students become immersed in producing imaginative, creative and ingenious ideas that are ultimately undeliverable. One student commented:

> *'I didn't see the point when they said to choose ideas and contribute to what you would like in the school…I thought because we are just students at the end of the day and I don't think that they'll actually take our ideas very seriously.'*

He went on to say that the designs would have benefited from constraints to allow for more realistic designs

> *'It would be nice for someone to actually to say "Oh yeah, we've got this budget, we'd really like some realistic ideas that could, you know, we could actually use" instead of people saying "We'll put your ideas down, we want to know", it's a big vague, you don't actually have things to say "Oh, we could get this". They could get to say one idea and it would completely unrealistic, you haven't got enough money to do this.'*

The young people expressed a quite sophisticated understanding of constraints. For example,

> *'they say they're asking for ideas and saying that our ideas will be taken in to account but then if we've been promised a certain amount of something…and then they've kind of let you down saying that you're not going to get it any more because they haven't got enough money to do it or because they haven't got the time or because they don't find that it is necessary or something'*

There is a risk that if young people are asked to produce plans that are later rejected because they are impractical, unworkable, and too expensive or do not fit in with a broader vision, this will lead to further disengagement from the process and the educational system.

The view was expressed that pupils' experience is too limited to enable them to envisage change to the delivery of education. There was little evidence of pupils contributing to discussions about the curriculum or learning styles, as they may not have experienced working and studying in innovative ways. As one head teacher indicated

> *'We've done some work but in my opinion that work is fairly limited, because the students don't know what they don't know. So they're victims of their own experiences and environment.'*

Further problems in meaningful participation may be caused by the time scale involved in building a school, because many children involved in the design process will have left it by the time it is completed.

In many of the interviews, young people exhibited a degree of cynicism about the design process, expressing dismay at what they see as empty promises. This was particularly so in one school in an affluent area where staff believed the school to be a low funding priority compared to more deprived schools. Students and staff expressed the opinion that there was little point in becoming involved, because they believed funding would be withdrawn before the school was built. One example was cited by the school's business manager

'Everything we try and bid for we don't get because we're in the wrong area. I spent nearly 2 years putting a lottery bid together to try and improve our school facilities and the reason we failed was because we weren't a priority. Despite the fact that the particular facilities we were looking at, there is none in this area…They still turned us down'

Such cynicism was reflected in responses from students. One sixth former was asked how much she knew about the proposed rebuild, she commented

'I knew they were thinking about rebuilding it... I wasn't really sure and I was like "Yeah, whatever". But you hear certain things, I was in Year 9 and they said that everyone's going to get their own laptop, they were going to get this they were going to get that. But nothing actually ever happened so you just take it on and think whatever.'

This attitude was not found in other schools, indicating the contingent nature of participation and the extent to which it is dependent on the practices and ethos of each individual school.

Conclusions

The research indicates that schools are not being provided with sufficient guidance or methods to enable pupil (or teacher) participation in the design of new schools. This is problematic given that involvement in the creation of large-scale community projects is believed to increase feelings of ownership and co-operation, the level of investment being placed in the building programme and the belief that this will improve the educational system.

Through observations of typical (as opposed to flagship or academy) schools and interviews with LEAs, we have found that the protracted nature and complexity of the design process severely limits the possibilities for pupil participation. Participation is further hampered through the lack of time and expertise in involving pupils in design on various levels, a lack of trained facilitators and absence of a good-practice guide. Although the type of participation should not be prescribed, guidance should be provided for those new to the process and participatory discussions should go beyond addressing superficial and marginal areas, without unnecessarily raising expectations. Young people can understand budgetary and time constraints, and whilst some of their ideas may be aspirational and unrealistic, they can work with design constraints.

The results show that in many cases, in 'ordinary' schools, the ideal of pupil participation may be foreclosed by contingencies, budgets, issues, debates, personalities and events at grassroots level. Not only are pupils not fully involved in the design and decision making processes, teachers can be excluded as well. Pupil participation, which offers opportunities for the design of more pupil-oriented schools and curricular, as well as real opportunities for first hand experiences in design, is not being supported well enough centrally, with schools and LEAs being left to find out which methods are most appropriate, with little dissemination of best practice.

We conclude that policy-making regarding participatory design/ergonomics should be better grounded in the complex and diverse realities of the (re)design of school environments in practice. The experiences of schools already engaged on the BSF process which have developed approaches to engage their students should be collated to provide a set of methods that could be used by the next wave of schools involved in the programme. Additionally greater attention should be given to the participation of teachers and the types of educational practices the new schools will support.

Outputs

Therefore, the outcome of the project was a set of guidelines to support the first stages of this activity sent to over 3000 schools, LEAs and architects. These remain available electronically at: http://www.coventry.ac.uk/researchnet/d/699. These were written with target end users in mind (including children), providing an overview of the benefits of participation, plus examples of

methods which could be used to participation and examples of pitfalls to avoid. A one-day multistakeholder conference was held bringing together teachers, LEAs, architects and others interested in the process. Results were disseminated to participating schools through a one day workshop focusing on design literacy

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