

Chapter One: Introduction

Introduction

The focus of this research is the involvement of student voice in the planning and design of a new secondary school, funded as a Building Schools for the Future (BSF) One School Pathfinder project and examined as a case study. The contribution made to the design process by student voice was compared to the contribution made by staff and parent voice. To test the consistency of the findings on student voice a comparison was made with the contribution from student voices that are generally heard; School Council students on smaller projects in two comparator schools and from student voices that are not generally heard; students from a PRU who had been expelled from mainstream schools because of poor behaviour. The research continues with consideration of the impact student voice had on the design process compared with that of other stakeholders and the impact on the students of their involvement in the design process.

Including students in decision making has been a comparatively new phenomenon in English state schools developing mainly since the 1970s (Fielding, 2001; Fielding and Rudduck, 2002; Rudduck, 2003 and Fletcher, 2004). Only recently however, has it been suggested that student views should be seriously canvassed concerning the design of school buildings. Very little research appears to have been conducted into the rationale or motivation for student involvement in the design process, the appropriate level of engagement or the impact of student voice on either the design process or the completed design. In *'mapping the territory'*, Flutter and Rudduck (2006) concluded that the extent of student involvement often appeared quite limited and short term. They also found that very few projects had been fully evaluated and that as a result the evidence of the impact of student voice was largely anecdotal.

Research into this area is therefore timely, appropriate and necessary to inform the BSF process as it progresses from Pathfinder status into mainstream funding. The research question is, Building Schools for the Future: is the design process, or the completed design, improved by involving student voice; does student involvement bring anything different or innovative to the design; what impact does the student voice have on the completed design compared with that of other stakeholders involved; and what impact does involvement in the design process have on the students?

This chapter introduces and justifies the need for the research, explains the aims of the BSF programme and sets that in context by looking at the legacy of earlier school building programmes. It moves on to an examination of what design and good design may be before exploring the suggestion that although student involvement has been difficult to achieve in the past, student voice may have a key role to play in creating better school buildings for the future. The chapter concludes with an outline of the thesis and a summary of this chapter.

Building Schools for the Future

The government's £45 billion BSF programme, announced in February 2003 is a programme which aims to rebuild or renew all secondary schools by the year 2020 (CABE, 2007, p. 3):

Our new Building Schools for the Future programme gives us a unique opportunity to transform our secondary schools into innovative learning environments that will inspire pupils to achieve more...will help to raise standards and will play a crucial part in our ambitious programme of educational reform (DfES, 2004a, p. 1).

The BSF programme is not, therefore, simply about patching and mending or even replacing a crumbling building stock with new schools; it is also about *raising standards, transforming learning and educational reform* (DfES, 2004a). It is in fact a vehicle for change. BSF provides the opportunity to design buildings that facilitate pedagogy for the twenty-first century, moving away from what has been described as the embedded industrial model of education, featuring a teacher-centred didactic

delivery offered from a desk at the front of the classroom to large groups of students sat in rows (Costa and Liebmann, 1997). The schools of the future need to provide the learning environments that will adequately support the knowledge-age model, facilitating flexible, inclusive, personalised and independent learning, enabled and richly supported by ICT (DfES, 2004a). The learning environments should be inspiring the young people of today to be confident, independent, life-long learners equipped to succeed in a global economy that is changing so fast that the career they enter may not even exist at this point in time. It should be providing the facilities for young people to develop visual literacy, gain confidence in handling an over-load of information and keep pace with exponential advances in technology (EBDOG, 2006).

Learning will become less academic and more experiential, interactive and meta-cognitive. But we don't have much evidence of what kind of environment will support this sort of experience (Greaney, personal transcript notes, School Learning Environments: BSF – Making it Better by Design Conference, 23rd September 2004).

It would appear that there is still considerable uncertainty and lack of agreement about how to design buildings and learning environments that will facilitate the anticipated changes in pedagogy and even considerable scepticism and resistance to change among many educationalists. There would also appear to be considerable concern that BSF is producing buildings that are still designed for the nineteenth century pedagogy. This may be because consensus has not yet been reached on what a twenty first century school should look like; only on the fact that it is necessary to create buildings that are flexible and adaptable which allow for whatever changes are necessary to take place.

BSF however, is about even more than the complex issue of creating the right buildings that will facilitate changes in pedagogy. It is also about creating buildings that are sustainable and environmentally friendly with low carbon footprints. It is about designing buildings that facilitate the government's agenda on workforce reform. It is about the financing, the delivery and servicing of the buildings and ICT infrastructure. The government also see BSF as a way of developing the extended school agenda, taking the community into the school and the school into the

community. Most importantly for this thesis, it is seen as a way of creating schools that are exciting and stimulating, that will inspire students to achieve their full potential; places where they want to be and which they can be proud of (<http://www.teachers.tv/video/3390>). On this aspect especially it would therefore appear to be logical to involve students in the planning and design of new schools.

The legacy of earlier building programmes

The last substantial funding injection into a school building programme in the 1960s left a legacy of schools, the majority of which were built very quickly and cheaply with very little consultation. They featured flat roofs, excessive glazing, poor insulation, acoustics and ventilation, resulting in school buildings that are now expensive to run and maintain. Inadequate maintenance budgets over a number of years have compounded these conditions and as a result many schools are now a long way from the government's vision of inspirational learning environments. The designs were also fairly standard, with narrow corridors, 'blocks' of classrooms, steep and narrow staircases, inadequate staff and dining accommodation and very few spaces for students to sit and socialise. Even the DfES was forced to admit that there *'are many school buildings that while functioning well, are not interesting places for children or adults to be in'* (DfES, 2004a, p. 3).

From 1992 most of the funding for schools that have been re-built or re-furbished has been allocated through PFI, a programme whereby the private sector is commissioned to design, build and provide schools and the ongoing facilities management services (usually catering, caretaking and maintenance but sometimes also ICT). These services are normally provided for the period of the contract, usually twenty-five years. The schools are designed and built on an output specification (a list of what the building should achieve by way of spaces, temperature, acoustics, etc) produced by the Local Authority (LA). The programme is designed to attract low tender costs and transfer all risk to the private sector. As a result many of the schools have been built as 'low risk' and fairly traditional in design, to achieve low build and low maintenance costs. The time scale for the tendering process, three to six months in many cases, and the number of potential contractors, up to six on some projects, has made the possibility of meaningful consultation and the involvement of student voice very difficult to achieve. The

complex procurement process means that by the time a bid is awarded, the design is usually already developed in outline, the area that is to be new build or refurbishment has already been established and the final price has already been accepted. From this point, however much consultation is undertaken, the school and the students are only able to make relatively minor changes to the design.

Rouse, chief executive of CABE in 2002, commenting on the first thirty new schools built through the earlier PFI programme, said that many of these new schools, far from being stimulating were more *'like sheds without windows'* (Rouse, cited in Burke and Grosvenor, 2003, p. 19). Three years later, with all the research, guidance, experience and collaboration available, Simmons, the newly appointed chief executive of CABE, berated the PFI programme for not creating enough schools *'that are exemplary, inspiring, innovative or flexibly designed'* (Simmons, cited in Kingham, 2006, p. 1). Wright, the co-editor of the magazine 21st Century Schools concludes that with *'the exception of a handful of schemes, seven years of PFI has produced an awful lot of mediocrity'* (21st CS, volume 3, p. 1).

It is difficult to identify the cause of this mediocrity. It has been suggested that it is the speed of the design process; the lack of funding available; the lack of consultation or the lack of clarity over what a well designed learning environment of the future should look like. But whatever the contributing factors, it is important that the large investment in school buildings through BSF is invested wisely. With the doubts that have been raised about the design of schools built over the past seven years, the lack of inspiration, innovation and flexibility, it could be argued that a new approach is required to improve the design process.

Another source of funding since 2002 has been the Academies programme. Academies are publicly funded independent schools with private sponsors providing £2 million of the funding in return for an input into the overall vision, ethos, governance and management. Many of the Academies have been the subject of design competitions which has resulted in bold designs with the appearance of modern office buildings or universities. Because most of these have been newly established schools or replacements for failing schools, very little consultation with

staff or pupils was undertaken. A review, commissioned by the DfES, of all Academies constructed by 2005, concluded that:

Whilst the 'bold statement' of the new Academy buildings was important, there had perhaps been too much emphasis on this at the expense of some of the more practical requirements of modern teaching and learning spaces (DfES, 2005a, p. 34).

It would appear therefore that earlier building programmes have included limited consultation which may have contributed to poor or mediocre design, or designs which are not fit for purpose. There is also uncertainty about what a well designed school for the 21st Century should look like and what constitutes good school building design.

Definition of design

The word design is a term used loosely and it would appear to mean different things to different people. For example, Bexley Academy was described by many as an exemplar design, not only a good example but one which leads the way for the future. It has been successful in attracting several building awards and during a visit on 7th October 2005, described in Appendix A, the visiting group of students led by the researcher, collectively assessed that the building had that difficult to describe 'wow' factor. This assessment of the design was however purely subjective. It was also an assessment of the impact that the building had as you walked in and around. On closer inspection the student visitors disliked some aspects (for example the toilets); the Headteacher disliked several (for example the impracticality of having students walk from the muddy sports field, through the main building and up the stairs to get to the changing rooms, and the noise problem with open plan classrooms). Although most would agree that the building is stunning the professional building and design journals are of a consensus that the Bexley Academy was not fit for purpose.

Sorrell, chief executive of the Commission for Architecture and the Built Environment (CABE) in 2006/7 and founder of the Sorrell Foundation and *Joinupdesignforschools* has suggested that:

Good design isn't only concerned with how beautiful a product is but with how effectively it performs its function. Good design ensures that a product makes life better for everyone who comes into contact with it. A badly designed building costs more to run and is harder to maintain (Communities Today, 2006, p. 8).

Even this comprehensive description fails to capture the individual and subjective nature of appreciation. A beautiful building of glass and steel may not be classed as a good design by someone who prefers to see a style that reflects a Tudor chapel, a French opera house or a Renaissance villa. A demonstration of how diverse individual perception can be is the conflict discussed by Rose (2007) in his article entitled *'It's so tacky'* describing the award winning Esplanade House in Porthcawl, Wales. The locals hate it and refer to it as *'the bottle bank'*, one described it as *'an abortion'*, in stark contrast to the statement by the Royal Society for Architects in Wales, *'praising its mix of humour, charm, intelligence, populism, and solid architectural pragmatism'*, bringing *'the fun of the beach resort back to the seafront'* (Rose, 2007, pp. 23-25).

Figure 1.1 Esplanade House: an example of conflict of interest on design



The assessment of good design will inevitably include an element of subjectivity and personal opinion. It is therefore even more important that the views of the client are canvassed and many would argue that the students are the real clients.

Student involvement

Burke describes a few '*moments in the past, when the views of children were sought*' (Burke, 2007, p. 362) but early research revealed that despite the rhetoric there has been very little involvement of parents and even less of students in school building design, prior to the BSF programme (Mason, 2005). It has been suggested that the key to the creation of interesting and innovative design is to involve students in the planning and design process. For example Graba (2001) suggests in the title of his article that we '*cannot get the schools we want by changing the schools we have*'. He goes on to say that we need schools that are very different with a different approach to designing them to overcome the '*invisible architecture*' (Graba, 2001, p. 2) of experts who are resistant to radical change. Lackney (2001) suggests that to gain this inspiration we need to take account of the 'small voice' and fully involve young people in the planning process. He argues that it would bring fresh multiple perspectives to the process and quotes the Zen master Susuki, who said that in '*the beginner's mind there are many possibilities, but in the expert's there are few*' (Lackney, 2001, p. 5). The Organisation for Economic Co-operation and Development (OECD, 2001) has warned that although schools 'structurally' are currently the focus for pupils and their learning, other sources of interest and influence are far more interesting to today's young people. They conclude that schools in the future will fail unless they are informed by a serious appreciation of young people, their lives, interests and needs in today's society.

Although the early research revealed that prior to the BSF programme there was limited evidence of student involvement in building design and planning, three interesting experiments have been conducted in the UK to capture the students' voice. In 1967, the Observer newspaper invited secondary school children to enter a competition to describe 'The School I'd Like':

Most were tired of squareness: where an actual shape was suggested, nine times out of ten it was a round one. Domes were yearned for.

Classrooms were hated, desks detested. They wanted gay decoration, and many wanted the decoration to bear the stamp of their own individuality. They wanted common rooms, rooms in which they could relax, and in general they wanted schools fit for leisure as for labour (Blishen, 1969, p. 12).

The experiment was repeated in 2001 by the Guardian newspaper (Burke and Grosvenor, 2003). The conclusion reached was that *'no one reading the collection will be left with any doubt that children and young people are capable and entitled to help'* (Burke and Grosvenor, 2003, Preface xiii).

Both of these experiments generated responses from children and young people describing what their schools should look like by way of building design but also how they were organised, physically and in terms of governance, styles of learning, curriculum, use of time, the role of teachers, when and where and how the students thought they should learn, and even questioning the very need for a school.

The most recent experiment, *'Joinedupdesignforschools'* (Sorrell, 2005) was a government funded initiative to link world class designers with students, to design inspiring learning and social spaces within their schools. One of the designers (Kevin McCloud) commenting on the process said *'I think there is enormous value in designers working with children as clients: it shows how it ought to be with adults, but it isn't'* (Sorrell, 2005, p. 40). There would therefore appear to be a perception that students do have a valuable contribution to make to the planning process and could possibly make a difference. This view was reinforced by Flutter and Rudduck:

There is a suggestion that student voice may have a key role to play in creating better learning environments. However, it also suggests that further research is needed to explore how student voice can be used to improve the quality of the school environment through a more sustained structure for participation (Flutter and Rudduck, 2006, p. 2).

The possibility of exploring the role student voice may play in creating better learning environments through a case study approach became a possibility with the introduction of the BSF One School Pathfinder project.

The case study

On the 2nd November 2005, the DfES informed the case study LA that it had been awarded a BSF One School Pathfinder project. This consisted of a capital grant of £20.2 million to replace one secondary school with buildings in poor condition. The capital grant allocation did not require the usual prescribed procurement route for PFI which could be argued is a potential barrier to effective engagement with students. BSF projects are normally procured through the same route as PFI but for LAs who will not be involved in BSF until after 2010, the DfES announced the One School Pathfinder projects as a way of helping them to prepare. This one off capital allocation therefore presented an opportunity to involve student voice from an early stage during the preparation of the design brief (a much richer descriptive document than the output specification produced under the PFI procurement) and before the tender for a design and build project was awarded. The fact that it is a design and build project also means that the design is developed by the contractor in partnership with the client which offers further potential for the involvement of student voice. The offer was conditional on the LA's undertaking to '*involve the school community (e.g. pupils, staff and parents) in planning the project*' (DfES, 2005b). This Pathfinder project therefore presents the opportunity for what has been described as a '*qualitative natural experiment*' (Open University, 1999, p. 50). It is likely to be the first school to be designed and completed through a process that will enable the input of student voice throughout. There are twelve other One School Pathfinder projects in progress, but this is the only project currently scheduled for completion by September 2008. The case study will therefore present the opportunity to explore the involvement of student voice in the design process and evaluate the contribution and the impact.

The researcher's role in the case study project was as the LA's Head of Capital Strategy responsible for the BSF One School Pathfinder. She was therefore responsible for acting as advisor to the Headteacher, Governors, SMT, staff, students, parents and other stakeholders in helping them to understand and embrace

the BSF and transformational learning philosophy, prepare the educational vision and design brief for the tender document, contributing to and monitoring the project as the design was finalised. She was also responsible for ensuring that the expectations of the DfES, the LA and the school were met. These various roles and responsibilities presented the possibility of conflict, an issue that is explored further in chapter three.

Research design

The research forms the final thesis of an EdD programme, with a lone part time researcher who was also working full time in a very demanding role. The research therefore had to be very focussed and for this reason deliberately concentrated on the building design aspects of the students contribution, rather than the pedagogical design and wider aspects of how, when and where they wanted to learn.

The aim of the research was to explore the possibility that students may bring a different or unique perspective to the planning and design process by capturing the suggestions the students made for incorporation into the case study design and comparing them with those raised by the staff and parents to establish if the student voice identified anything that was fundamentally different to suggestions made by others. To test the consistency of student voice, a further comparison was made with the findings from two smaller school projects. The two comparator secondary schools, local to the case study school, invited volunteers for the exercise from their School Council. As a further test it was therefore necessary to explore the possibility that ‘non traditional students’ would make different suggestions. A similar exercise was therefore conducted with the students in a Pupil Referral Unit with students who had been excluded from mainstream schooling for behavioural reasons.

Group interview and focus group feedback from students at the case study school, at different stages of the design process, were examined to assess the possible impact of student voice on the completed design. Interviews were then conducted with the members of the project team in the case study school to establish their views on the contribution to the design made by the students and how much impact they thought the student voice actually had. The findings were compared with a second One School Pathfinder project in a neighbouring LA, with recent literature, and with

views and experiences of colleagues from other authorities currently taking part in the BSF projects. The conclusions and recommendations made were then subjected to a process of peer review with senior officers involved with BSF. The impact of the involvement in the design process on the students was also explored.

Thesis outline

The thesis continues in chapter two with the Literature Review which explores the concept of student voice, the rationale and motivation for involving students, the claim that they bring a unique perspective and may have an impact on the design process as well as the completed design. It goes on to explore the items that have been raised by student voice in the few examples available. It then considers the level of engagement, the process and the methods that have been used for collecting student voice. This aspect of the Literature Review was conducted to inform the research methods. The research methodology and the researcher's role are explained in chapter three. The use of case study as a research approach is examined, the case study school setting is explained and the methods used during the case study are described in detail and evaluated. Ethical issues are also examined. The findings from the research are presented in chapter four, comparing the findings from the case study school with other projects. The perceptions of the design/project team at the case study school on the impact of the student voice on the completed design and the impact of the design process on the students are then explored in more detail and compared with the findings from the second One School Pathfinder project in a neighbouring LA. Finally, in chapter five the findings are summarised and discussed before conclusions and recommendations are made along with suggestions for further research.

Summary

The government continues to commit unprecedented funding into school buildings, amounting to £1.2 billion by 2007 (BSF web page). They are committed to ensuring that the mistakes of the past are not replicated and that the vision of BSF schools is achieved. It has been said that many of the schools built with PFI funding lacked inspiration or flexibility and are in fact mediocre while Academies often achieve a bold design but at the expense of some of the more practical requirements of modern teaching and learning spaces. It has been suggested that students could possibly have

a key role to play, may help to overcome the '*invisible architecture*' (Graba, 2001, p. 2) of experts who are resistant to radical change and possibly supply the catalyst for innovation. It is also suggested that involvement in the design process may be beneficial to the students. The case study One School Pathfinder BSF project is not subject to the PFI procurement strategy which it could be argued is a potential barrier to effective engagement with students. It therefore presents an opportunity to fully engage with student voice and evaluate the input, impact and the implications.

Chapter Two: Literature Review

Introduction

The premise being investigated in this thesis is that '*student voice may have a key role to play in creating better learning environments*' (Flutter and Rudduck, 2006, p. 2); that student voice may bring a fresh or '*unique perspective*' to the design process (Lackney, 2001, p. 5); that by taking account of the student voice during the design process and focussing on their lives, interests and needs in today's society we will be ensuring that schools are exciting places to be that inspire and transform learning (OECD, 2001). The claim that student involvement will help to overcome the '*invisible architecture*' (Graba, 2001, p. 2) of experts who are resistant to radical change will also be explored along with the benefits the students gain from involvement. A literature review was therefore conducted to explore the involvement of student voice in the process of planning and designing learning environments and school buildings. Existing interpretations of student voice were the starting point of this thesis. As the research progresses it will be possible to explore the extent to which these interpretations emerge and whether or not anything can be added to the understanding of student voice.

This chapter begins with an examination of the term 'student voice' along with the potential barriers to engagement. The justification for engaging student voice is then explored. The chapter then goes on to consider why engaging student voice is important and what the possible benefits are both for the project and for the student, along with the items student voices have contributed to date. Finally the methods that have been used for involving student voice are explored as a way of informing the research methods.

Definition of student voice

Although student voice is a well recognised term it is first necessary to define what it means. A good baseline definition of student voice would be Fletcher's, who describes student voice as the *'unique perspective of the young people in our schools.....Experience and education help students create opinions, ideas and beliefs to which they give their voice'* (Fletcher, 2005, p. 1). However for students to make their voices heard there needs to be a process of engagement. Students are increasingly being encouraged to articulate their concerns and aspirations by school leaders and teachers committed to involving student voice in school improvement issues, or by researchers engaging with student voice to capture their perspective on issues affecting their experience of school life (Fielding and Rudduck, 2002). This would appear to be a move away from the view that children should be 'seen but not heard' and that 'adults always know what is best for children', but is it a trend that everyone finds easy to accept or are there still cultural barriers to that concept? In April 2006 one hundred and twenty students at a school in Norfolk made their voices heard, walked out of school and protested after a decision was made to shorten their lunch break by half an hour without consultation. The police were brought in to break up the demonstration and ten students were suspended. The news report in the Guardian on October 23rd, 2006 entitled *'Give us our voice in class'* prompted a comment blog page that clearly demonstrates the views held by many, representing the cultural barriers that exist which can reduce meaningful engagement with student voice:

'I would like to have seen the police wade in with paddle bats and whack the little brats back into class'.

'Choosing your own timetable? Yeah right – you need a PhD in applied maths to get one of those to work. Some 13 year old zitfest is going to get it right?'

'Children are children. They're not at school to decide what should happen there'.

Predictably, not everyone agreed:

'The whole point about participatory democracy in schools is that it should form part of the child's education. They learn that their ideas are not always acceptable to others or not always immediately possible. Hopefully they learn to respect the views of others and accept that you can disagree without being abusive'.

Clearly the school were not impressed with the way the students chose to make their voices heard; things may have ended more amicably if the culture and ethos of the school had been different and the students had felt able to approach the Headteacher to discuss their views. Fielding and Rudduck (2002) identify the fact that who gets heard is the key issue, how it is heard and by whom. To judge the outcomes we need to be aware of *'who is talking and who is listening and whether such attentiveness is customary or spasmodic, an entitlement or a dispensation. We also need to know whether the listening is authentic'* (Fielding and Rudduck, 2002, p. 3). The research will need to explore different methods for engaging with student voice and will also need to consider if the student voice was listened to; in other words did what they say have any impact?

How well student voice is encouraged and facilitated, how well the messages are received, acknowledged, employed and how much editing is undertaken is often difficult to assess from the research published to date (Flutter and Rudduck, 2006). It will therefore be important to ensure such detail is included in this thesis to allow the findings to be tested, replicated or generally used to inform future projects. A number of researchers have suggested frameworks to help us to understand the level of engagement more clearly. The best known of these is Roger Hart's 'Ladder of Participation' usefully adapted by Gerison Landsdown (1995) with further valuable work by Roger Holdsworth (cited in Rudduck, 2003). These frameworks are variations on a continuum of democracy, but as Fielding and McGregor suggest we need to be able understand the culture and ethos within the school together with the nature of the practices that have taken place in order to be able to judge the significance of the outcomes; was the involvement *'benign but condescending, cynical and manipulative (or) supportive and groundbreaking'* (Fielding and McGregor, 2005, p. 4)? Without the transparency in the way the research is presented it will be impossible to judge if the schools engaging with student voice

were *'prepared to listen to all students' voices or just those that resonate sympathetically with conventional adult views'*? (Martin, Worrall and Dutton-Steinfeld, 2005).

What changes the process of involving student voice from a benign encounter into one that is supportive and groundbreaking? Fletcher would argue that it is when power is shared:

When students are equal partners in schools a new relationship emerges. Respect is given and power is shared from students to educators and from educators to students (Fletcher, 2004, p. 35).

One of the barriers, which prevents this power sharing is, according to Fielding and Rudduck (2002) the fear of the outcome, which results in student voice being limited to relatively safe areas that do not have a significant impact on the adults within the school. This fear was also identified as something that deeply divides the teaching profession. On one side are those who are concerned about opening 'Pandora's Box', and who fear that by giving students the opportunity to observe and give feedback on lessons or to be involved with interviewing new staff will result in a situation where there is no way of closing the box. On the other side are those that believe student voice activities are like the ancient alchemists' Philosophers Stone and that everything they are involved in will be magically transformed (Martin, Worrall and Dutton-Steinfeld, 2005). It is important to maintain a balance and a sense of proportion, as Thomson and Gunter point out:

It was also clear that simply having the right to speak and research did not mean that what was said by students was somehow more 'pure' or 'authentic' than any other voices (including our own) (Thomson and Gunter, 2006, p. 11).

A lack of balance could lead us into the trap that Arnot and Reay caution against; believing that *'everything that students say is relevant'* (Arnot and Reay, 2007 in press, p. 14). Nieto also cautions us that taking account of the pupil perspective *'is not meant to suggest that their ideas should be the final and conclusive word'* and

that to put too great an emphasis on their contribution is *'to accept a romantic view of students that is just as partial and condescending as excluding them completely from the discussions'*. (Nieto cited in Myers and MacBeath, 2004, p. 3).

We should also allow for the fact that students will have and bring to the discussion different backgrounds, views, thoughts, and needs. They will not therefore speak as one voice. *'There is no homogenous pupil voice (sic) even in a single working group but rather a cacophony of competing voices'* (Reay and Arnot cited in Fielding and Rudduck, 2002, p. 4). Bernstein also alerts us to the trap of confusing voice and *'its realisation, that is, its messages'* (Bernstein, 1990, p. 165).

We should also reflect on the composition of those who are contributing. Fielding challenges us to consider the value of only involving highly motivated, well behaved students. He suggests that to talk of student voice is in some ways misleading because some voices are more willing to speak than others (such as the School Council students). He goes on to ask the following question:

To what extent do the perceptions and intentions of students who are most often and most readily listened to reflect the experience of those students for whom school is an uncongenial or alienating place?
(Fielding, 2001, p. 101).

It could be argued that the views of students who find school to be *'an uncongenial and alienating place'* could be even more important for informing the design process, which is why the research will include students from the PRU.

The literature on student voice suggests that it is a vital resource, that students should be invited to bring their perspective into the process and that their views are worthy of attention. We are however alerted to the need for caution; we should be careful about giving student voice undue weight compared with the voice of other stakeholders. We should also be concerned with the way the issues are voiced literally and be aware that there may be an underpinning message. The research will therefore need to explore what student voice contributed and if this was anything unique or innovative compared with other stakeholders; was their contribution recognised and

did they have an impact on the design; did cultural barriers prevent or reduce the impact of student voice; was there any evidence of the fear of outcome reducing the student involvement to relatively safe areas and did different students produce different results?

The justification for engaging student voice

Arguably, one of the most powerful reasons why we should be involving students in the planning and design process is because the government is telling us we should be doing it. It has in fact become a government priority. The United Nations Convention on the Rights of the Child and specifically Article 12 was the first international mechanism to ensure engagement of youth voice (UNICEF, 1989). The tragic case of Victoria Climbié (Laming, 2003) was the catalyst for the government's focus on eliminating the risk of children falling through the net and has resulted in a powerful agenda for developing more effective services for children, young people and families. The emphasis for services is now focussed on the whole child, combining education, child protection, social care, health and welfare. These changes are enshrined within the Children's Act (2004) and Every Child Matters: Change for Children (DfES, 2004b). The Every Child Matters Agenda promotes the right of children and young people to be involved in the decisions that affect them to improve policy and services and is broken down into the five outcomes: being healthy; staying safe; enjoying and achieving; making a positive contribution (especially relevant in this context); and achieve economic well being. Maggie Farrar the Operational Director of ECM and Standards National College for School Leadership (NCSL) says that the *'five outcomes were originally developed by children...The whole process should honour the voice of the child'* (LDR 24, 2006, p. 24). Inspections and Joint Area Reviews will evaluate the newly formed services, and part of the inspection will be to ensure that every LA is fully involving children and young people in these processes. One of the driving forces for the government's agenda on the engagement of youth voice is the belief that this will encourage good citizenship for the future.

A second motive for involving student voice in decision making is therefore that it contributes to developing the necessary citizenship skills, preparing pupils to be good citizens, enabling them to fully participate in a democratic society. Citizenship,

which requires students to study democratic processes, is now a requirement at Key Stage 3 and 4 and is in part intended to reduce political apathy among young people. The belief is that: '*Students should not only be trained to live in a democracy when they grow up; they should have the chance to live in one today*' (Kohn, 1993, cited in Fletcher, 2004, p. 11). Rudduck argues that encouraging student voice in school decisions is:

Helping pupils to articulate their views as members of the school community is a central feature of citizenship education, along with the related skills and sensitivities of understanding a range of different perspectives on an issue and weighing evidence as a precursor to action (Rudduck, 2003, p. 10).

Sorrell (2005) supports the view that skills can be developed but with a slightly wider emphasis. It is suggested that involving students in decision making on school learning environments helps them to discover life skills through the interaction with professional designers. The skills they identified consisted of:

creativity; problem solving; communication; teamwork; reasoning; organisation; open mindedness; personal awareness; negotiation; presentation; financial awareness; evaluation; observation; responsibility; spatial awareness; aesthetic judgement; conversation; collaboration and citizenship (emphasis added) (Sorrell, 2005, p. 165).

In other words the benefit is as much for the student and their development as it is for the planning process. The beneficial effect on students is therefore another powerful reason for involving students in the planning and design process.

It has been argued that in addition to developing skills, involvement also has a positive and motivational effect on the students giving them a sense of excitement, ownership and pride (Borden, 2004). Higgins would support this view, describing the work of Newcastle University on exploring the literature surrounding the variables that influence learning, he concluded that:

There is evidence that when teachers and students are involved in the design process - no matter what kind of environment results - the outcome is positive because of the sense of shared ownership that develops (personal transcript notes, Design Council Policy Seminar – School Learning Environments, 28th October 2004).

Unfortunately no evidence was actually demonstrated during the seminar, but the strength of involvement, engagement and its importance was also endorsed at the same seminar by Stephen Heppell (2004). He was inspired by a primary school in New Zealand that moves premises every few years and fully involves students in the process of designing the new school. It was, when he visited, situated on the top floor of a department store (with customers occasionally finding themselves in a school instead of the slipper department). Because the children were involved in the way the space was fitted out, it reflected the very features that he argued students consistently request; flexible and open space for discussions and relaxation. His argument was that the children were better engaged and achieved more as a result. Again, unfortunately no evidence of this was made available.

The researchers would appear to have a ‘perception’ that there is a positive and motivational effect but even if this perception was shown to be fact, it could be a very limited experience. For example, unless like Heppell’s (2004) example, the school is dismantled and rebuilt every five years, the sense of ownership may only exist while those students who have been involved in the project remain at the school. It may not be sustained as new cohorts of students arrive with no history of involvement and therefore no reason to be motivated by that particular project. In addition, the number of students who are involved in any projects may only represent a small percentage of their cohort. The benefit of involvement may therefore be limited to a very small number of students. It could be argued that the students who are not involved could be de-motivated. Another concern could be that attempts to encourage student voice may be seen as patronising or even manipulation by the students. Jill Stuart, Headteacher at Summerhill School argues that ‘*simply paying lip service to such ideas can often cause more harm than good as expectations are raised but never fulfilled*’ (DEMOS, 2004, p. 3).

Improving respect and behaviour is another reason for involving students that has been advocated. The newspapers often appear to be full of stories demonising our young people with headlines portraying attacks on teachers, stabbings and shootings, and reports of schools introducing police patrols or weapon detection equipment. Whilst these situations are still relatively rare Fletcher (2004) argues that violence is on the increase because of the growing numbers of young people expressing a feeling of alienation from their teachers and peers. He concludes that meaningful student involvement is the way forward, building a truly progressive pedagogy, not only promoting democracy but also increasing responsibility and respect and which will as a result reduce behavioural issues.

Respect for student voice was demonstrated in the School Works project at Kingsdale School by involving the students and the local community in the development process to ensure that the most effective design solutions were employed. As the architects (dRMM) suggest:

Participation is not about asking participants to design buildings; it's about releasing the user knowledge and creative potential (Learning Bites, 2004, p. 2).

The Headteacher, Steve Morrison, was also convinced of the value of engaging with the students:

The involvement of pupils themselves isn't just a gift; it actually improves the end product. The pupils will happily tell designers what works and what doesn't, offering a profound insight into the user's perspective (Learning Bites, 2004, p. 3).

A good example of this would be the user's perspective on safety and bullying. For example high on the priority list in designing the 'School I'd Like' was 'a safe school' (Burke and Grosvenor, 2003, p. 17) indicating the need for designs that improve security and reduce bullying. Sorrell (2005) also identifies one of the common issues as toilets that are 'clean, hygienic and safe' (Sorrell, 2005, p. 35). According to Maslow we all have a 'basic need' for security and the lower order needs of

physiological and physical safety, are dominant until satisfied (Handy, 1985, p. 30). Therefore, if children do not feel safe at school they will be unable to perform to their best ability. If they are reluctant to visit the toilets because of the fear of being bullied they are more likely to drink less water and dehydrate which will reduce their ability to concentrate. The UK Youth Parliament manifesto states that:

Schools should recognise that bullying is an important issue for young people in education and that they should devise strategies to tackle bullying with their students (UKYP, 2004, p. 1).

What better way than to involve them in devising strategies to tackle bullying through the planning and design stage of new school buildings?

Borden (2004) believes that the design is improved if students are involved because, she argues, they are the schools' real clients. They use the buildings in a different way to adults and know what works and what doesn't. This was also the assumption at the heart of the 'Joinedupdesignforschools' project (Sorrell, 2005), the government funded initiative to link world class designers with children acting as clients, to design inspiring learning and social spaces within their schools. The designers worked with the children to identify what students most wanted to change in their school and then engaged with them throughout the design process to provide solutions that could lead to practical improvements:

If you ask students their opinions and give them responsibilities, then they will often surpass your wildest dreams (Sorrell, 2005, p. 33).

Only one of the Sorrell projects was about the planning of a whole new school (a primary) but the enthusiasm displayed by the young students during this project impressed the Headteacher and his response demonstrates how he believed their involvement significantly changed the process and how he perceived it to have improved the end result:

It's a great way to design a school. The advantages are obvious; in the past schools have been designed by an architect or local authority to a

spec off the shelf. It's all about money limitations. This one wasn't like that. I think if the voices of the pupils and the teachers are clearly expressed in the way schools are built, you'd have a lot less problems in school (Sorrell, 2005, p. 158).

A further motive identified in the literature for involving students is the possibility that they may be able to help when there is a conflict of interest. For example Dyson (2003) suggests that designs for extended schools may be improved by involving student voice. He believes it may be possible to bring a solution to the current tension between those who believe we should regard the school as a community resource, (taking the community into the school) and those who believe the school's core business is that of raising attainment and the need to provide a 'safe haven' (keeping the community out). Dyson suggests that there needs to be a coherent approach to taking the extended school concept on to the next stage and involving schools in local regeneration, (taking the school into the community). Research conducted in 2003 across twenty community schools in the USA; found that the community-centred schools are a benefit to students and that with:

15 out of 20 initiatives, comparisons with the schools' previous performance or with a comparison group showed a significant improvement in grade and test scores – along with increased attendance, fewer disciplinary problems, and greater community access to physical and mental health services (Bogle and Diamond, 2004, p. 1).

In the USA, Boss (2001) discusses another motive for linking schools and communities, i.e. the need to spend \$500 billion in the next few years upgrading school stock. With an eye on value for money they advocate that schools should serve as a centre for the community and describes, in a very similar approach to the New Zealand example given earlier, how some charter schools are located within such places as museums and city halls, and as she suggests: *'It takes more than a little courage to plunk down a high school in the middle of a museum'*, (Boss, 2001, p. 4). Whether the motive for extended schools is school improvement or value for money, how do we get the balance right between opening up schools and making

them the centre of the community, with all the associated risks and concerns that this raises, but also the advantages? What better way than to involve the students and gain their unique perspective in this debate! Why not ask them what would make them feel safe, secure, welcome, connected to their neighbourhood and eager to learn and by doing this gain a serious appreciation of young people, their lives, interests and needs in today's society?

The outcome of student involvement

As we have seen from the comprehensive review of student involvement undertaken by Flutter and Rudduck (2006) very few projects have been fully evaluated and the input from student voice is largely anecdotal. Three projects, already referred to, have been undertaken in the UK and the authors have selected aspects of the students' contributions which have been published: Blishen, 1969; Burke and Grosvenor, 2003; and Sorrell, 2005. By reviewing these publications it is therefore possible to establish and compare what student voice has brought to the discussion on learning environments to date. It should be noted that both the Blishen and the Burke and Grosvenor findings were the result of a competition, where the students did not have any expectation of their contribution being transformed into a finished design. The same could be said for the Sorrell projects although because they were working on real issues the seven hundred students did get quite passionate about seeing their designs acted upon. As a result, many of the projects have now been, or are being, implemented. It should therefore be recognised that the material used in the following comparisons has been collected in different ways. The Blishen and Burke and Grosvenor competitions were intended to explore the wider aspects of school and learning and were arguably only marginally about buildings.

A framework, based on the list of issues identified by Sorrell (2005) was created and used to compare the findings from the literature (Table 2.1). This framework did not however, cover all aspects of the suggestions made about buildings by the students within the Blishen or Burke and Grosvenor publications and additional headings were therefore added to Sorrell's original list to accommodate these aspects.

Table 2.1 Comparative findings on student voice from the seminal literature

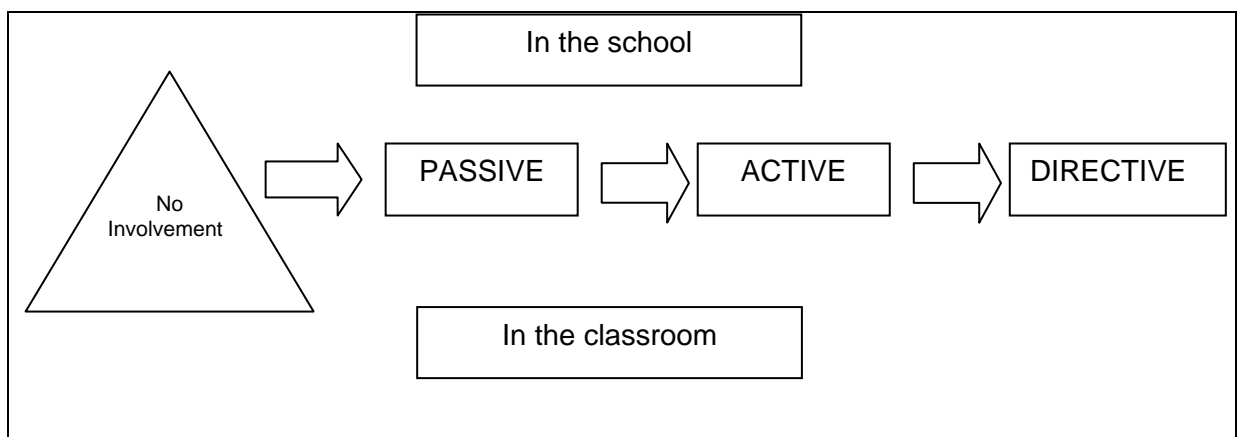
SORRELL (2005:165)	BURKE & GROSVENOR (2003)	BLISHEN (1969)
COLOUR to brighten up their school and enhance atmosphere and mood	lots of colour, soft pink, sky blue, bright yellow or rich purple, I want colours, I want beauty...a calming sky blue, bright colours on the walls, carpets, ceilings etc, bright colours orange and purple, sensible colours that stimulate the brain cells (pp 23, 24, 25, 73, 113, 117).	not drab, murals, gay materiel, decorated by pupils, quality decoration, 'invaded' by novel colour schemes, bright materials and paints, not brown or dirty grey, every room painted differently, ours would be purple and white (pp 22, 36, 46, 48-51, 169).
COMMUNICATION to tell pupils, teachers, parents and the community what is going on	Sometimes when the bell goes people get scared because you get pushed, on line registration (pp 115, 131).	no bells, sections broken up by the jarring ring of an electric bell (pp 33, 86).
DINNER HALLS AND CANTEENS for a civilised lunch time with less chaos and more time to relax	encourage cultural, racial and language awareness by offering a range of food from around the world, marble floor and domed glass roof, healthy food, teachers and pupils should eat together, do not use the assembly hall, a proper canteen and cafeteria, instead of free meals everyone should have a ticket, that way everyone would be equal, no 30 min queue (pp 37, 38, 41, 42, 102,132).	good cooking, varied menus, appropriate portions, avoiding banal or eccentric combinations, choice and a pleasant environment in which to eat (pp149-151).
LEARNING SPACES that are modern and inspiring	triangle shaped classrooms, carpets, drinking fountains in every classroom, play Bach and Mozart during exams, relaxing music, the teachers would come to your classroom for most lessons, bright, lots of windows and posters on the walls (pp 23, 24, 27, 29, 38, 113, 142, 143).	lecture halls not classrooms, definitely not square, large windows, large and airy, no classrooms but large halls with flexible partitions, classrooms lead directly off corridor with sliding partition, music allowed in craft lessons (pp 22, 27, 46, 48, 49, 50, 52, 166).
RECEPTION AREAS to make everyone feel welcome	No comments	enter through glass doors, automatically opening to an atmosphere controlled and pleasant (p 26).
REPUTATION AND IDENTITY to make them feel proud and sure of what it stands for	a school which creates a happy, calm, working environment that inspires all young adults to learn and interact with one another in an environment that values them and treats them with respect, so they can learn to respect other people and cultures with understanding, safe and welcoming, racist and bully free (pp 27, 101, 113).	a place where children want to go (pp 30, 50).
SOCIAL SPACES to chat and chill during breaks	many comfortable and informal meeting places for creative interaction, shops, food diners, gyms, sport facilities, cinemas and even places to skate, a quiet zone for reflection, meditation, rest, unsupervised study areas with comfy chairs and tables and free water, a TV room and CD player, a 'spaced out' room where there are bright colours, noises, soft flooring and bright moving lights, common rooms with internet and vending, one quiet, one with music, dark and mysterious one for Goths (pp 25, 74, 116, 117, 157).	clubs, dances, cinemas etc., screaming room, common rooms for everyone, plenty of space to play at break (pp 28, 36, 52).
STORAGE for books, equipment, bags and coats	lockers for all our books and PE kit, lockers because of all the books I have to cart around, the desks would have drawers that students owned to keep books in, lockers to put all our books and PE kit in (pp 29,114,116,142,145).	No comments
TOILETS that are clean, hygienic and safe	spacious and well equipped with janitors that clean regularly, toilets that are cleaner and have smoke alarms, should be nice and clean (pp 24, 27, 29).	lavatories that do not freeze up in cold weather, should not be minus chains, minus door-locks, minus toilet paper or minus all three (pp 46, 47).
UNIFORM that is comfortable, 'cool looking', make them proud to wear	4 in favour of school uniforms, 7 against school uniform, 1 thought it was OK if pupils were involved (pp 103-105).	no uniform, large minority would like no uniform, the majority wanted a uniform but felt that it should be modern and they should have an input on the choice (pp 22, 145-148).

WHOLE SCHOOL PLAN , they want to contribute to a vision for a new school	more involvement in the layout and facilities by the pupils' opinion and what the pupils want, see above on uniforms (p 98).	less rules and more involvement on uniform see above on uniforms (pp18, 19, 153-163).
SIXTH-FORM SPACES for socialising and to work on their own	No comments	appropriate space for private study periods (p 48).
TITLES ADDED TO COVER ADDITIONAL FEATURES AESTHETICS	marble stairs, cylinder shape, glass domed roof that opens on hot days, glass and bright blue steel, murals and statues produced by pupils, wide corridors, interesting, colourful and have art graffiti instead of 146 pictures of some year group's trip to the middle of nowhere!, fun and shaped like a bun, wide windows with scenery (pp 23–25, 28, 29, 40, 59, 114).	something beautiful, large light corridors, modern design, comfort, crammed with interest, paintings and sculpture, different architectural styles, bright and attractive, the whole building pleasant to work and relax in, mellow-hued stone, honeyed by the sun, round shape, music department shaped like a violin, (pp 46, 48-50, 52, 53, 165).
TEMPERATURE	many heaters, fans in the classrooms in summer (pp29, 113).	cool in summer and warm in winter, air conditioning, pleasant temperature, not too much glass or we ripen like tomatoes in a greenhouse, under floor heating so we can take off our shoes, efficient central heating and air conditioning (pp 46, 49, 50).
ACOUSTICS	No comments	little noise, soundproofed, soundproof the music room (p50).
FURNITURE and EQUIPMENT	all chairs are soft and have arms, soft chairs and nice tables, tables with slanted top, leather seats with foot rests, soft tables so we don't get sore elbows, desks that are easily moved, why do teachers get better chairs than us?, egg shaped chairs which sprinkle aromatherapy essences, chairs should have a nice shape and padding, circular tables so you feel part of a group, chairs with speakers for full surround sound and pockets for pencils, lunch, homework, diary, etc., tables with maps on for geography, comfortable chairs with pillows or cushions, marble tables (pp 24, 29, 114, 115, 142, 144-146, 159).	comfortable, deep armchairs not wooden chairs, attractive, soft chairs in a circle (pp 51, 60).
GROUNDS and SPORT FACILITIES	benches in playground, swings, slides, snakes and ladders, climbing frame, a maze with flowers, quiet places, hopscotch, skipping, tennis basketball, picnic tables and benches, shelter from wind and sun, space to run about and play football, badminton, baseball, rounders, swimming pool, flowers, bird boxes and lights, green lawn to sooth the mind, no concrete but grass, restful garden, a place to sit in the winter, plenty of trees, plants and gardens, an outdoor classroom, a small, but not too small skate park (pp 27, 50, 51, 53, 63, 75, 114, 157).	grass, concrete, trees and bushes, delightful natural grounds, grounds pleasant to walk in, greenhouses and indoor flower boxes, many tall beautiful trees, leafy arbours of rough-hewn stone, majestic statues, misty lichens, open water (pp 52, 53).
SUSTAINABILITY	eco-friendly, solar panels, wind turbines, re-cycling for all the schools paper and bottles, the school would be a hovercraft powered by solar panels, a bike shed, I would like the school to be cleverer so it may last forever..., digital books, pens and paper saving trees and the whole school would be environmentally friendly, as windmills and solar panels would power it (pp 25, 42,, 52, 144).	No comments
DISABLED ACCESS AND CIRCULATION	the disabled facilities would be best, easy access all around the school, a special microphone where I could switch my hearing aid to, fire alarms for the deaf (pp 101, 103, 114).	No comments
MEDICAL FACILITIES AND ADVICE	a large room with a big window, colourful with fresh flowers, health, emotions and problems building with trained counsellors and nurses and a rest room (pp 116, 117).	No comments
TECHNOLOGY	every child should have a laptop, each pupil has their own desk with a laptop, the trays should not be built under our desks, top of the range computer systems linked into one main teacher computer, children will have their own laptops, so children who are ill can still learn over the link (pp 142-144).	No comments

Methods of involving students and the level of engagement

This aspect of the literature review was undertaken to help inform the methods that could be utilised within the case study and comparator schools. Identifying where methods may fit into the various levels of the frameworks devised to describe the level of participation, would have been a useful exercise but unfortunately to enable this to happen, detail and insight into the methods used to engage student voice is essential, an element often missing in the literature. For this reason the more simplistic framework created by Lee and Zimmerman (1999) was used to cluster the literature review findings. The framework (Figure 2.1) suggests there is a continuum for student involvement ranging from none, to passive, which is collecting data through surveys or focus groups; moving towards a more active role with students influencing the process by, for example involvement in design workshops. At the directive stage the students not only influence but also help create the process by becoming partners in the design. Although this is not a particularly useful model, in that it does not demonstrate any interplay between the variables, it did provide a useful frame to cluster the findings on methodology from the literature review.

Figure 2.1 Student voice continuum developed by Lee and Zimmerman (1999)



In the Zoo School or the School for Environmental Studies in Minnesota (Zoo, 2005) planning began by asking the students who were their favourite teachers; the ones from whom they learned the most. These teachers were then sent around the country looking at innovative programmes before an architect was appointed to work with them to create the new school. This methodology would appear to fit into Lee and Zimmerman's category of 'passive' and is almost student voice by proxy. Boss (2001) describes the finished school:

Rather than traditional classrooms, the building includes student work stations and pods, allowing for both individual and group work. Extensive use of glass brings in the outside environment. Spaces for displaying student work send the message that student products have value (Boss, 2001, p. 5).

At the lower end of the active stage in the continuum is collecting information from children that may or may not be used in developing building and design projects. An example of this would be surveys or competitions. Competitions have been used in the past to encourage children and young people to describe the 'School I'd Like'; Blishen (1969), Burke and Grosvenor (2003). The authors claim that the results were innovative and imaginative, although unfortunately it is impossible to evaluate what proportion of the responses were of this category. It is also difficult to evaluate if this was because of the incentive of the prize, the amount of encouragement the students received from their schools, or the effect of this being an abstract assignment with little or no chance of the project being realised as compared with a project that the students knew they would be expected to live with.

New Horizons for Learning in the USA (2005) is encouraging students to share their insight about what works and what doesn't work for them in school and other environments for learning, through a website. Students and teachers are encouraged to contribute articles or produce videos. This technique is also used by Smallislandvoice (2005), an organisation that brings young people together from islands in the Caribbean, Indian Ocean and the Pacific Ocean. They host a website forum, WhatKidsCanDo, which young people use to discuss the changes they want to see happen.

Schmatz (2005) describes involving focus groups of students in a community planning process in Loveland, Colorado, that first of all required students to spend eight minutes in complete silence drawing a map of the area. They were then placed in small groups to prepare a poster of what they would want and a second poster on what they would not want. The only rule was that everyone in the group had to agree before something could go on the poster. Each group then presented their poster to the rest of the group followed by a discussion.

Learning Works has developed this approach further and developed workshops or design festivals to take students, staff and other stakeholders through the process of looking at aspects of good design in buildings and schools, describing what works well and not so well in their school, and then takes them through the process of developing their thoughts through a design festival, producing a comprehensive and descriptive design brief (Walter Hall, 2006).

Another example of an active project is the UK government initiative 'Bog Standard' (2005) which collects data from students by survey. The Bog Standard initiative, which unsurprisingly is about toilets, is a campaign to promote better toilets in schools and incorporates a 'pupil's site' as a section of the web page. This site not only encourages students to provide information, thoughts and ideas but also encourages and advises them on campaigning to bring about improvement. As a result of this move from survey to campaigning it would also move position further to the right of the continuum (Figure 2.1).

The majority of the techniques kept the working groups or focus groups as students only. Are these projects likely to produce different results from those where children and young people are brought together with adults/professionals? Is there a symbiotic effect or does the fear of working with children act as a barrier? (Blum cited in Kushman, 1997) identified the fact that involving students can be an uncomfortable experience, a possible barrier to this activity taking place more often. She describes the experience of working with a young student called Den:

At first it was a little awkward to have him as part of the group. I was concerned that we were either boring him or were using too much jargon. But I found that we explained ourselves more when he was there, and being clear was an excellent grounding for all of us as well (Blum cited in Kushman, 1997, p. 3).

Den also found things difficult at first, working with the 'mucky-mucks', as he describes them. He described how he felt '*totally out of my league, I heard people whispering "Is he a student?" I was terrified*', (Blum cited in Kushman, 1997, p. 3). In the middle of the second day Blum describes how Den 'saved' the day by

suggesting a sticky-dot activity which helped the group reach agreement. Den, with his new found confidence was more willing to share his perspective and left the meeting with a positive awareness of what student participation could mean. The group clearly found it a rewarding experience after they overcame the initial 'uncomfortable' barrier. It may have been a very different story however, if Den had been a more introvert character or if he had not found a solution to the adult's dilemma.

Moving to the 'directive' end of the Lee and Zimmerman model, the Sorrell initiative (2005) brought together students and designers to explore areas of their schools that they would like to improve. The process then identified one area the students would like to concentrate on as a project. In most of the case studies, the designers took the students on visits to see innovative designs that would feed their imagination, and then working with the students as clients, developed a design solution through an often prolonged and iterative process. Draft designs were developed from the students' brief and then presented back to students to critique and amend over a number of occasions before a final design was produced and approved by the students. Initially the project was theoretical with the aim of improving the way children and young people thought about design, encouraging them to work in teams and developing their presentation skills. More recently, realising that it had raised significant expectations, the government decided to encourage the projects through to completion by offering to fund 50% of the development costs. A small survey of the students involved in five projects within the case study Authority was conducted by the researcher and the results are given in Appendix B. It is interesting to note that although most of the students felt that they were totally in control of the project, one student registered anger at the way he perceived that they were manipulated by the teaching staff. Could it be that something about the characteristics of that particular student produced a different reaction? Was it the way the student engaged with the task, or were the students manipulated and this particular student was more perceptive than the others?

Borden (2004) provides a very useful summary to the literature on methods for engaging with student voice which span the continuum. She concludes that there is no single method for effectively involving students but that after interviews with

architects, planners, educators and administrators she has found that the following strategies achieve the best results:

- use student art work, ask them to draw what they want their school to look like
- use disposable cameras, take pictures of what they like and dislike
- host student forums, early input into design brief or feedback on designs
- involve students as representatives with an equal vote on planning committees
- organise a student design competition, nationally or locally
- provide design programs during out of school hours
- integrate design activities into class work.

The problem with this summary is that, it is a subjective assessment; it has no measure or evaluation on the different methods or any evidence on the results. One methodology explored in the Literature Review but missing from Bowden's summary would be that of a website. Another method that is not really addressed in either the Bowden summary or the Lee and Zimmerman model, although it could be argued that it would fit into the 'active' category, is learning by failure:

I am keen to see failure applauded – people should learn from their mistakes. James Dyson tried 5,127 prototypes before perfecting his cleaner (Financial Times, 26th February 2005).

Fielding (1999) would agree. He argues that the only way we learn is through doing and failure. He claims that failure gets our attention; it fosters an emotional response which is essential for learning. The literature review revealed very little evidence of attempts to learn from our failures by evaluation of new school buildings, and yet as the Headteacher at the Bexley Academy commented, a hybrid of all the Academy buildings could result in a wonderful building. There would therefore appear to be a lot to learn from building evaluations, especially evaluations involving the students (Appendix A).

Conclusions

There would appear to be a perception that it is important for students to be involved in the process of planning and design of school building projects. The government supports the involvement of student voice and has introduced guidance to ensure it happens. It would appear that several researchers and professionals would suggest that student voice does improve the planning and design process, not because of their knowledge of design, but because they bring a different perspective on what works well, or not so well within a school. Some argue it may be that they bring a different agenda or that they have a list of common issues that need to be addressed to ensure that the school is a place where the students want to be and are motivated. Others have said that the design must include a serious appreciation of young people, their lives, interests and needs in today's society. However, although there is a widely held perception that student involvement improves the design process, there is very little evidence to prove that this is in fact the case.

On projects where students have been engaged in the process of looking at improvements to existing buildings, such as Kingsdale and the Sorrell projects, the students may feel very comfortable about informing the designers of the issues they have with the current design. They may feel comfortable with looking at other buildings (either at pictures or through visits) and informing the designer what they like, or do not, and why. They may also feel comfortable about criticising any drafts the designer produces in response to that initial brief. But we need to evaluate what the students may bring to the debate, if it is unique and whether their input actually has an impact. Does it make any difference and is the final design that results an improved design providing inspirational learning environments? Would the designer produce the design without that input? Is the design of a project improved by involving students in every project or could this be achieved in other ways?

There is also a suggestion that in bringing a fresh perspective and/or agenda to the process student voice may help to resolve a conflict/tension, for example the extended school/community debate. But will all students have the same perspective or agenda? The literature review revealed very little evidence about the students but it appears most likely that School Council members or high achievers have been the most likely contributors, although children with different backgrounds, motivations,

prior knowledge and attitudes may react differently and produce different results. It could be argued that de-motivated or disaffected students could have a greater insight into what would improve school buildings, making them more inspirational and exciting places to be. This aspect therefore needed to be explored and tested within the research.

It is also claimed that this process of involvement has a positive impact on the student; it may provide a good opportunity for developing citizenship and life skills, self belief and knowledge and may help inform the students' career choices. There is also an argument that it has a positive and motivational effect on the students and may improve behaviour, although evidence to support this view is limited. This aspect also needed to be explored and tested within the research.

The literature review revealed a number of methods that have been used for involving students, some may be of more value than others, but very little evaluation of this has been carried out. A range of these methods therefore need to be explored and evaluated.

Chapter Three: Methodology

Introduction

The research is qualitative with a focus on a naturally occurring case study setting, an interest in the perspectives of the student voice in relation to others, the impact the student voice has on the planning process and completed design, and the impact involvement in the process has on the student. Although the research started with the generally accepted belief that the design process and the finished design would be improved by involving student voice, that students may have an impact on the design process and even bring innovation to the design, and that students themselves would benefit from their involvement, the research was grounded (Glaser and Strauss, 1967) and generated theory from the data collected. This chapter describes an overview of the research, discusses the researcher's role and the ethical considerations. It then examines case study as a methodology, the methods used for collecting and analysing the data, describes and critiques the data collection process and draws conclusions.

Research overview

The range of methods used to explore the research question was informed by the literature review. Different methods were used for the different aspects of the research question. The first aspect was to explore the possibility that student voice may bring a different perspective to the planning and design process, the second aspect was to examine the impact student voice may have on the planning and design process and the third was the impact the process may have had on the students.

To explore the possibility that student voice may bring a different or unique perspective to the planning and design process, a workshop was held for approximately seven hundred and twenty students, grouped into focus groups of

seven or eight. The students considered themes identified by the school's Senior Management Team, and each group produced flip charts of their comments/suggestions which were then typed up and made available for analysis and comparison with the staff and parent data.

The staff data was collected from approximately one hundred staff at a workshop that was run throughout the day. At the end of the workshop there was one flip chart for each theme which summarised and collated the comments made by staff. The staff considered the same themes as the students and therefore the data was more comprehensive, because it was in summary, but directly comparable.

The data from forty nine parents was collected by the researcher conducting interviews at a parent's day. Each parent was asked if they knew about the new school and invited to view the display (Appendix C) before they were asked if they would like to offer their thoughts on what the new school should be like. This approach clearly focussed the comments of the parents more onto what the design of the building should be like aesthetically, rather than a consideration of the wider themes that were developed three or four weeks later by the SMT and considered by the students and staff, but it is argued that this is still a valid comparison. The data from the student voice, staff voice and parent voice were then analysed and developed into tables to present a very transparent comparison.

To establish if there was a level of consistency with student voice a further comparison was made with data collected from three smaller group workshops. Two schools volunteered their School Council members, twelve students in each case, and one workshop was held with eight students from a PRU. Including student voice at the PRU was in response to the challenge that consideration should be given to the views of '*those students for whom school is an uncongenial or alienating place*' (Fielding, 2001, p. 101). A group interview was also held with thirty students in the second One School Pathfinder School.

Three group interviews led by the researcher and one focus group led by the Deputy Headteacher were held with the case study students at different stages during the project. The interviews were with eight students from the Aspirations Group prior to

the design workshop, three students from the group who worked on the Design Quality Indicators workshop looking at the design draft, the same group of three students to consider the finished design and a focus group meeting of approximately five hundred and forty students to consider the final design.

To explore the impact that student voice may have on the planning and design process, the findings were compared with the completed design to see if any of their comments had been accepted. Interviews were then held with five members of the design/project team to establish the impact they perceived student voice had on the completed design compared with others and whether it was thought that student voice brought improvement or innovation to the design. They were also asked which features, if any, they could directly attribute to the fact that the students were involved and if it was student voice or the designer's awareness of student needs that had in any way influenced the design. The impact on the planning and design process was further explored with three individual interviews conducted with members of the project team at the second One School Pathfinder project. The findings were then checked through a process of peer review with a number of senior colleagues working on BSF projects.

To explore the possibility that there was an impact on the students from the process of being involved in the design process, the forms produced by three students individually at the initial stage of the Design Quality Indicator (DQI) workshop were examined and compared to the consensus score that was later produced when they were working with the adults in the full DQI group. This analysis was conducted to see if the students changed their views as a result of the debate with adults. The findings of this analysis were also discussed during the individual interviews described above.

A survey was conducted with students who had been involved in the design process on five small Sorrell projects within the same LA as the case study school to establish their views on the impact the process of working on the Sorrell design projects had been on them and the benefits they had experienced. (The Sorrell projects were used to assess this aspect as the projects were in the process of being built whilst the final design of the case study school was not signed off until the very last day of the

summer term 2007 leaving no time for further interviews or surveys with the students). The methods used to collect the data are summarised below (Table 3.1).

Table 3.1 Methods for data collection: an overview				
	Pre-Design Stage	During Design Development	On Stage C Design Completion	Method Used for Collecting Data
Case Study Students	Invitation to return comments (9)			Open questionnaire
	Aspirations Group (8)			Group Interview
	Development Day (728) Yrs 7,8,9 & 10			Focus Groups
		DQI Workshop (3)		Joint workshop with staff
			DQI Group (3)	Group Interview
Case Study Staff	Staff Workshop (100)			Focus Groups
	Development Day (100)			Focus Groups
		DQI Workshop (13)		Joint workshop with students
Case Study Parents	Invitation to return comments (5)			Open questionnaire
	Parent Day (49)			Stop on the corridor interviews
Case Study Project Staff			Design Architect, Client Advisor Architect, School's Education Advisor, Project Manager, Deputy Headteacher (5)	Individual semi structured interviews
Comparator School A	School Council Students (12)			Workshop
Comparator School B	School Council Students (12)			Workshop
PRU Students	(8 reducing to 7)			Workshop
Comparator BSF Pathfinder Students		BSF Student Group, yrs 9,10 and 11 (30)		Group Interview
Comparator BSF Pathfinder Project Staff		Project Manager, Deputy Headteacher, LAs Education Officer (3)		Individual semi structured Interviews
Sorrell Project Students			(21)	Questionnaire
Sorrell Project Staff			(1)	Discussion and follow up e-mail
Numbers in () indicate the size of the groups				

Ethical considerations

The case study school had previously been considered for development through a PFI scheme in 2003 but was removed from the scheme when funding shortages

became an issue. This had resulted in some tension between the school's SMT, the school governors and the LA. The lack of trust between the school and the LA (generic mistrust not specific in any way to the researcher as an individual) created considerable conflict at times and also the researcher did not therefore feel able to share her research interest with the school at the beginning of the process; to do so would almost certainly have resulted in a refusal to co-operate and as a consequence the research would not have been possible. As the DfES required the LA to submit reports that demonstrated consultation and as the school as part of its culture and ethos already subscribed to encouraging student voice at every possible opportunity the relativist position, giving the researcher personal ethical choice, was adopted and therefore the research was initially covert. The initial covert nature of the research meant that the school was not aware that the data from the student interviews were being analysed as part of this thesis, but assumed it was entirely for use within the design brief. As the project developed and the researcher was able to establish a relationship of trust it became possible to share her research interests and the two key members of the SMT when asked, did happily agree to be interviewed as part of the research. The school also selected the students that were put forward for inclusion in the research which prevented any attempts to conduct random sampling.

The potential for personal bias was a constant issue and opportunities for reducing this were built into the research strategy. These included peer review at various stages of the research with two senior officers in the LA acting as reviewers, and the final draft thesis being reviewed by senior officers at Partnership for Schools and the DCSF. Findings were also discussed and compared with other senior officers involved in BSF Pathfinder projects at regional meetings and national conferences.

Confidentiality and anonymity was a difficult issue as the case study school is easily identifiable; it is the only Pathfinder in the LA and one of only thirteen in wave one of the Pathfinders in the country. This was addressed during the two interviews with the members of the SMT. Assurance was given to both that any aspects of the research published (other than for the thesis) would first be checked with them.

As a considerable amount of the material was collected at conferences and through interviews the researcher had to be especially careful that all quotes were accurately reproduced and attributed and authority to use quotes in her work was obtained from

the speakers. Audio tapes were used and transcribed in full for use in the research, except when the student interviews were conducted. It was felt by the researcher that tapes would be too intimidating for the students to engage freely and therefore note taking was used as an alternative during these sessions. These sessions were also much shorter, between fifteen minutes to half an hour compared with the individual interviews with the adults that ranged between half an hour and two hours. During the student workshops an administrator was employed to take notes and type up the flip charts that were produced. Other ethical issues such as the taking of photographs, recording of interviews and working with students, were given careful consideration, ensuring that permissions were granted and also making sure that any data was stored in a very secure way. All documents, including working drafts of the thesis, were kept in a locked cabinet and the draft thesis was kept on a laptop, also kept in a locked cabinet when not in use. Back ups were kept on a secured drive which can only be accessed by the researcher. All draft hard copies of the thesis were shredded before being recycled.

A case study approach

The strengths and weaknesses of a case study approach have been documented by Nisbet and Watts (1984) cited in (Cohen, Manion and Morrison, 2001). Although this is a useful summary of strengths it is questionable to say '*they speak for themselves*' (Cohen, Manion and Morrison, 2001, p. 184). This will depend on the way the case study is written. The detail on student involvement was frequently missing from the case studies explored in the literature review. Although it was possible to identify projects where, it was claimed, students had been given a voice, it was in most cases impossible to quantify the extent of the student involvement, what amount of freedom, direction or guidance they had received, at what stage of the process they became involved or how much of the finished product was as a direct result of the students' input. The literature review also revealed very little information about the students who were involved in the projects: if they were high achievers, self selecting, or well behaved. There was also very little evidence of the students themselves identifying the benefits that they achieved by being involved in the planning and design process. These omissions were frustrating as they were all things readers may have wanted to know. If research is to be '*critical and self-critical enquiry*' (Bassegy, 1999, p. 38), the case study research design and integrity of

the methodology should be open to the scrutiny and judgement of others. The research therefore needs to be very transparent, telling the story of the research, what has been done, and why, so that the research claims can be verified by the reader.

Returning to Nisbet and Watts, it may also be questionable to state that case studies '*provide insights into other, similar situations and cases, thereby assisting interpretation of other similar cases*' (Cohen, Manion and Morrison, 2001, p. 184). This would appear to support the view that generalisation or transferability from a single case study may sometimes be a possibility. Many would take the opinion that it is impossible to generalize with a single case study and that they are therefore of little value. Donmoyer considers and evaluates these opinions but concludes that case studies can provide '*vicarious experiences*' to others and are of value therefore because readers can still make use of them (Donmoyer (2004) cited in Gomm, Hammersley and Foster, 2004, p. 60). He therefore concludes that case studies have far more utility than was traditionally thought. This particular aspect appeared to be very relevant to the research, as so little has been conducted to date on BSF and the involvement of student voice. If the findings are as transparent as possible and the research processes are explained in sufficient detail, it should be possible to provide others involved in BSF with a '*vicarious experience*' and therefore the case study will be of value.

The Nisbet and Watts summary also fails to identify a point made by Salkind (1991). He claims that it is impossible to establish a causal effect between what is observed and what may be responsible for the outcomes. Was the design affected or changed because of the influence from the student voice or were changes brought about because of other variables, such as the designer, the Headteacher or the researcher's involvement? The interviews with the project teams enabled this issue to be explored. Questions were asked about any suggestions and amendments made by the students that could be tracked through into the finished design:

[Any] researcher, no matter how unstructured or inductive, comes to fieldwork with some orienting ideas, foci and tools' (Miles and Huberman, 1984 cited in Silverman, 2006, p. 98).

Unusually in this fieldwork, the researcher was not only seen to be the ‘expert’ on BSF and the process needed to deliver the BSF One School project; she was also the officer responsible for the project. It was therefore necessary to introduce, lead and develop the project before any research could be undertaken; making presentations to staff, informing students, governors and the SMT on what BSF was about and what the DfES expectations would be. This is where personal bias could have become a major issue. If the presentations made to the school staff and students were biased, that bias could translate back into the research. Likewise the material collected through the research could be presented in the findings in a biased way. For this reason media displays were used to inform the discussion wherever possible, rather than lectures or descriptive presentations, and peer review of findings was undertaken.

The researcher’s role as a participant observer was an important aspect because it gave her the opportunity to observe the process at all levels. She attended all the relevant meetings and had access to all key persons and documentary resources. It also placed her in a position of conflict at times. The success of the project depended to a certain extent on how well she fulfilled this role; the opportunity for student involvement to some extent depended upon her intervention and sometimes leadership; the first draft of the vision statement and design brief were drafted by her, and at the same time she was the observer and researcher. Alternatively it could be seen as a conflict for the research as her subjectivity could have resulted in claims of bias. This was the reason the researcher chose to submit her work for peer review. There was one occasion where the researcher’s observation of an incident completely clashed with the observation made by an interviewee (the DQI workshop) and the researcher ensured that the findings reflected this dilemma.

The process for collecting data at the case study school

As the school is in a very remote part of the country and the majority of the staff and students had no experience of new school designs or buildings, it was important for everyone at the school to have the opportunity to explore new developments in school buildings and design. Visits would have been time consuming because of the distances involved and so every effort was made to bring examples and ideas into the school. Presentations on these were avoided in an attempt to ensure that the

possibility of the personal bias was minimised. As part of this process of awareness raising a looped plasma screen display was produced for the main reception of the school (Appendix C). This was intended to raise awareness of what BSF was about and to encourage staff and student participation. As a further attempt to avoid personal bias the display was commissioned from a graduate trainee with a brief that it should include what they believed were interesting illustrations and explanations from the exemplar designs (DfES, 2004a) and photographs of the school demonstrating the current inadequacies. It was therefore disappointing that during the two days the researcher was present in the reception area when the looped plasma screen was first launched, the only obvious interest was when students and parents were stopped and asked about the display. Others simply streamed past without noticing. With hindsight it may have been better to place the screen in the hall so that as students were waiting for assembly to begin they were also confronted by the display; or alternatively to have loud music as part of the display so that the students attention was attracted, if only for the time span that it took to recognise this was not the Music TV channel.

As part of the 'informing process' an assembly was held during the first week of the new term to explain to all the staff and students that they would be getting a new school, what would be happening, what the timescale for the new school would be, how they could/would be involved and inviting their input. The researcher made promotion videos of the Bexley and Djanogly Academies available to the school and these were installed on the schools intranet. An e-mail was circulated to inform every member of staff that these were available and how to access them. Only two members of the ICT staff made any reference to having seen these videos during the period of the project.

The researcher assembled a photographic display in the main entrance/reception area (Appendix C). This consisted of modern and exemplar school designs using the Design Council photographs, photographs of schools and Academies taken during research visits and international examples taken from the Internet. All examples available were used, not just the examples admired by the researcher, again to ensure that there was no personal bias to this 'informing process'. The advantage of the display and its location was the fact that it lined the part of the school hallway where

students queued for their lunch. During the two days the researcher was in the school collecting the parents' voice data, conversations about the display were observed with several cries from students of *'this one's cool'* (Journal entry 26th January 2006). Students did acknowledge having seen the display and were able to comment on some of the designs during meetings. A handout of all the designs was also made available for each student for a discussion they had within tutor groups. Unfortunately tutors did not feedback the outcome of these discussions.

To explore the possibility that students may bring a different or unique perspective to the planning and design process, a number of methods, informed by the Literature Review were used to collect data. The methods were not entirely at the direction of the researcher as the school understandably had very strong views on their students' involvement. A variety of methods were used because the researcher wanted to test and compare the findings through a process of method triangulation to improve validity. It has been argued that method triangulation can help to overcome partial views and present something like a complete picture, although we should also be aware that the success of one method can not make up for the failure of another it may help to add *'rigor, breadth, complexity, richness and depth to any inquiry'* (Denzin and Lincoln (2000) cited in Silverman, 2006, p. 292).

The researcher's early attempt to collect views was not very successful. A form was left in the reception area, on a low table alongside the waiting chairs and the display. The form requested name and address and asked *'now that we have an opportunity to plan a new school building, what should it look like and how might it be different'*. It was hoped that parents or children waiting for meetings would view the display and take up the offer to complete a form and leave it at reception. Only nine returns from students and five from parents were received. This probably reflects the view that a *'completely open questionnaire that is akin to an open invitation to write what one wants'* (Cohen, Manion and Morrison, 2001, p. 248), is not considered to be as powerful a tool as a semi-structured questionnaire. It probably also ignored the fact that most of the students waiting in reception were there either because they were ill or in trouble and most of the parents were there anxiously awaiting feedback on an admission, behaviour or progress issue. They would, on reflection, hardly be in the right state of mind to wax lyrical about new school building designs!

The looped plasma screen and photographic display were available for Parents' Day and the parents were encouraged (by student satchel letters) to visit the display, ask questions of the project team, and offer suggestions for the new school design. When approached, very few parents acknowledged having seen the letter, (a few guilty looking students accompanying their parents, dived into their bags to produce the letter as the question was asked). Satchel letter at secondary school level is increasingly being recognised as an inadequate method for communicating with parents, as this exercise demonstrated. On reflection e-mail or a text messenger service would probably have been a more successful approach but at this point in time the school did not subscribe to this service.

To ensure that as many parental responses as possible were captured, notices were placed at alternative entrances directing parents to the display and parents were adeptly 'kidnapped' by the researcher to elicit comments. The parents therefore became convenience samples: '*opportunistic sampling, selecting from whoever happens to be available*' (Cohen, Manion and Morrison, 2001, p. 143). The parents were first invited to view the display of exemplar buildings and school designs. The comments elicited were therefore almost entirely within the scope of the research and as a result all contributions were included in the comparison. In total approximately two hundred parents were approached and forty nine responded by pausing and giving their opinion or thoughts, raising issues or making recommendations. These contributions were collected as field notes with long comments paraphrased into short sentences. It is recognised that this may have created an element of bias, but the majority of the comments were short descriptions of likes, wants, needs and dislikes that were captured in full. A detailed response was organised by the Parents' Forum and a further three letters were received offering comment. The responses were collated for use in the design brief but were also therefore available for analysis and comparison with the staff and student voice.

Focus groups were used during several stages of the research, with a reliance on the interaction within the group discussing the topic rather than a reliance on the researcher supplying the direction. The major benefit of this was that it helped to reduce the bias of the researcher, allowed the views of the participants to develop and gave the researcher the ability to stand back from the discussion and allow the group

dynamics to emerge. They also produced large quantities of data in a relatively short time. The data was captured on flip charts as a permanent record of the discussions and was recorded by the participants, which again reduced the potential for bias.

A workshop was held for all staff, run by the Headteacher and attended by the researcher. It was used to explore the following themes developed by the SMT:

- What to keep in the new school?
- What to lose in the new school?
- What is special about us?
- How would we structure learning?
- What do YOU want most in the new school?
- What THEMES do you think we should explore in more detail (which can then be given to a designer to draw some plans)?

The staff worked in small focus groups to produce flip charts of their responses for each question which were then transcribed. A summary was produced by the SMT and made available for both the design brief and for documentary analysis. The themes identified by the staff were consolidated by the school's SMT and were used to formulate the next round of workshops. The consolidated themes were: feeling safe; resources; delivering the sports specialism; students being responsible for their own learning; challenge and creativity in learning; outdoor education and key skills; delivering the creative arts; supporting the family feeling; 14-19 curriculum; aesthetics; KS3 curriculum; healthy lifestyle and community partnership.

A full day design workshop based around these themes was held for approximately one hundred staff (teaching and non teaching). One member of the senior staff was allocated to act as a facilitator for each theme and all other staff, as they became free throughout the day, joined a table, often visiting several throughout the day. As new staff joined each hour, the facilitator's role was to summarise progress to date and then seek further views and opinions. At the end of the day the facilitator summarised the day's input and these summaries were then made available for incorporation into the brief and for analysis and for comparison with the student and parent voice.

A request was made by the researcher to the school for a small meeting with a group of representative students. The students were selected by the Deputy Headteacher from the school's 'Student Aspirations Group' a focus group of high achieving and very articulate students appointed by the school, who meet regularly to discuss school improvement issues. The researcher was introduced to the eight students in the school library where the meeting took place. This meeting place ensured that the students could be observed by a member of the library staff but they were not inhibited by her presence as she was at a distance from the discussion. The students were invited to talk about their current school, what they liked, what they did not like and what they would like to see in the new school (a short version of the School Works programme identified during the literature review). The school could only release the students from their classes for three quarters of an hour and there was therefore very little time for the researcher to develop any rapport with the students. It would be difficult to justify the meeting as 'meaningful' but the interview did produce some valuable ideas which were recorded in note form and are included in the findings.

Following on from the Literature Review, the ideas promoted by Learning Works (Walter Hall, 2006) were discussed with the school as a possible way of engaging the students in a full day design workshop. The SMT were uncomfortable with this approach and decided that the workshop should have more structure. A workshop was therefore held for approximately seven hundred and twenty students, (year eleven were not included as they were preparing for exams). The students were invited to consider the same consolidated themes identified and used to collect information from the staff (described above).

Although the conventional wisdom identifies the need for extreme care with the sampling so that the focus group has homogeneity, and suggests that focus groups of children operate more successfully when they do not consist of friends (Cohen, Manion and Morrison, 2001, p. 288) other findings identified were considered by the researcher to justify the position of allowing the groups to self select. This included the need to make them feel at ease, '*ensuring that participants have something to say and feel comfortable enough to say it*' (Morgan cited in Cohen, Manion and Morrison, 2001, p. 288). This style of focus group and allowing the students to sit with their

friends was also designed to overcome the reluctance of children between the ages of 11 and 14, undergoing the transition from child to adolescent, to talk with adult strangers. Horner found that children were *'more relaxed and willing to share perceptions when discussions are held with a group of peers'* (Horner, 2000, Abstract). This was demonstrated by the fact that although closely supervised the students clearly felt able to express their views quite freely, for example naming staff they would like to get rid of, suggesting smoking rooms should be available and a 'fit' nurse, which is recognised locally to mean good looking. Flip charts were produced by the students recording their comments against each of the 'themes'. This allowed for the students to speak in their own voice, rather than having their views translated by the researcher and for very large volume of contributions to be collected and collated, something that would not have been possible with group interviews. The flip charts were then typed up by a temporary member of agency staff (and therefore unbiased) producing a document which very accurately transcribed the flip charts. This document and the flip charts were made available to the researcher for the design brief and analysis. This document was reduced by taking out responses that did not impact on the building by way of content, layout or design e.g. suggestions on uniform, views about teachers, homework, starting times etc. It is recognised that this reduction of the data collected may have introduced bias and ignored valuable material but the thesis demanded focus and the decision by the researcher to exclude these aspects of student voice from the analysis was therefore taken in consultation with her tutor.

It is not possible to present the case study findings as percentages as the number of student groups was not recorded by the caretaker or supervising teachers. One hundred and eleven sheets of flip charts were handed over to the researcher. Several of the sheets were continuations and the number of groups was therefore estimated to be very close to one hundred but this can not be guaranteed with sufficient certainty to equate the number of group comments to being a percentage.

To group the data and to be able to make the comparison a framework was developed to compare the issues raised by the students, staff and parents. The same approach was used to the comparison of the Literature Review findings described earlier in chapter two. Starting with the framework of common issues identified by Sorrell

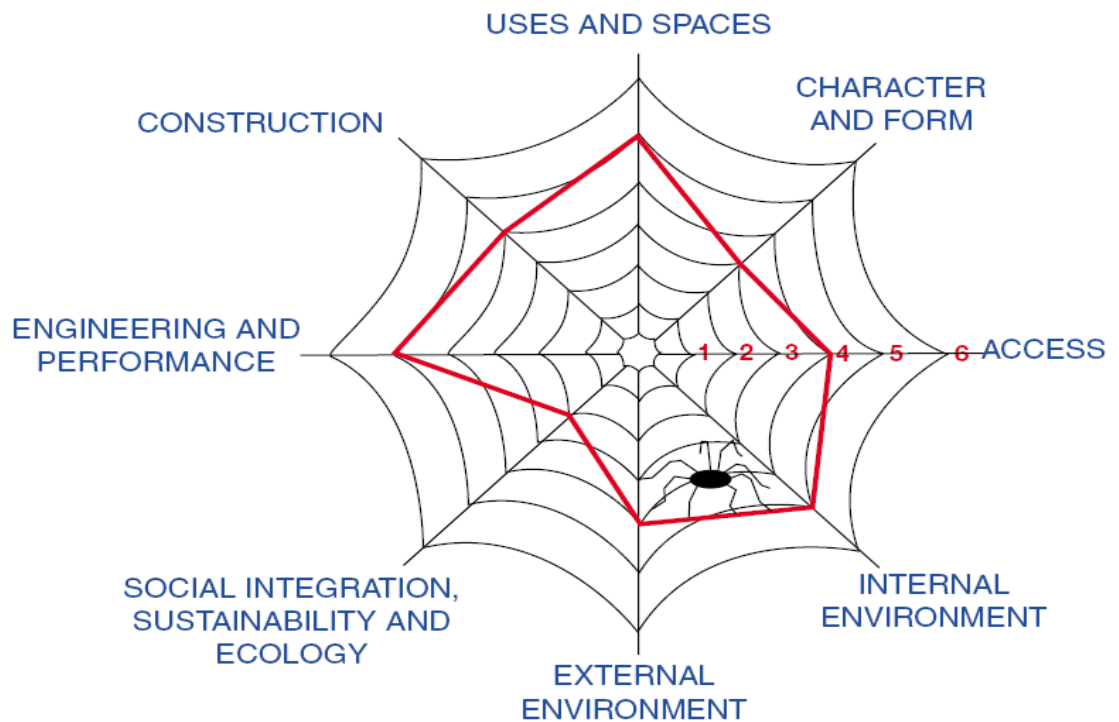
(Sorrell, 2005), the section on sixth form spaces was excluded as the case study school did not include a sixth form and the heading on uniform was also excluded as it was outside of the scope of the research. In addition the heading 'whole school plan' was discounted as it related to the primary school plan that was developed and therefore was not relevant. The framework was then extended to accommodate additional themes that emerged with the addition of categories to include aesthetics, temperature and acoustics, furniture and equipment, outdoor spaces, sustainability, security and resources.

Within the framework comments were further clustered into smaller themes developing a set of categories that in the opinion of the researcher, gave a better illustration of the data. The final re-organised document was then compared with the original to ensure that all references had been correctly identified. This format was also used to record the responses from parents and staff to provide the opportunity of comparing the issues raised.

The Design Quality Indicator (DQI) workshop was a requirement of the DfES and the session was held with a group from the school that included three members of the SMT, a governor, two parents, the three project team members from the LA, two school staff, and three students who, at the DQI facilitator's insistence, were given equal status on the panel. This workshop therefore presented the opportunity of a mixed working group such as the one identified earlier in the Literature Review (Blum and Kishman, 1997). The DQIs have been developed for the DfES in order to contribute to the development of well-designed school buildings by assisting those involved in the project to *'define and check the evolution of quality design at key stages in the development process'* (CIC, 2006, p. 6). The areas considered by the questionnaire are: functionality - which looks at the need for the building to be easy to use, easy to get around with rooms and spaces of the right size and adjacency; impact - which covers the need for the building to have a presence and be built with the right materials that fit in well with the local community and environment; and build quality - ensuring that the building is fit for purpose, environmentally friendly with good acoustics, natural light and ventilation. The contributors are asked to individually complete a questionnaire, indicating the relative importance of a hundred statements covering a range of factors and giving them a score. The results

are then discussed by the group and a consensus is reached before the scores are entered into a programme that creates a consensus Venn diagram which Fisher (2006) amusingly depicted as a spider's web (Figure 3.1).

Figure 3.1 DQI Venn diagram presented by Fisher (2006)



The individual DQI questionnaires from the case study school were analysed to see if the students had identified different criteria to those selected by the rest of the group or if their views had been influenced by the process of working in partnership with the adults to reach a consensus. The findings are included in Table 4.20.

A second meeting with the researcher, the architect and the three students who attended the DQI workshop was arranged to discuss the completed building design. The students were shown a 'fly through' video of the design and the plans were explained to them by the architect. The school was only able to release the students from classes for about an hour so that by the time the video and plans had been presented there was very little time left to obtain their views on the design. Fortunately by this time the students were very much at ease with the researcher and very willing to offer their views. About fifteen minutes of the meeting remained for

them to make comments which were recorded in note form and are included in the findings. Again the application of the word ‘meaningful’ could be questionable in view of the time allocated but the students did raise some interesting comments which were recorded and included in the findings.

The school held a full meeting of three year groups, approximately five hundred and forty students, to consider the final design. The researcher was not present at this session but the data was made available to her for analysis and are included in the findings in Table 4.19. The workshop was also discussed in the interview with the Deputy Headteacher.

To establish if the student voice was consistent a comparison was made with the results from an exercise conducted in two other workshops at comparator schools (local to the Pathfinder school). This was done in an attempt to triangulate the data collected. Although it has been argued that multiple data sources, particularly of qualitative data, do not necessarily guarantee consistency, increase validity or bring objectivity (Cohen, Manion and Morrison, 2001) the researcher did believe that it may at least identify indications of a pattern. Both schools involved students from the School Council. A half day design session was conducted by the researcher using a similar process to the Learning Works model identified during the literature review. Students were given the opportunity to look at examples of exemplar building and school design using the same display used at the case study school. To ensure that they actually considered the pictures in some detail they were given three red sticky dots and each student was asked to place their dots on the display pictures to identify the three designs they liked best. They were asked to describe and produce flip charts on what they liked about their school. They were then asked what they disliked and finally were asked to consider what features they would like to see in a new and ‘perfect’ school designed for the future. Their responses were captured on flip charts and then transcribed into a document that was used to make the tabulated comparison of the two schools (Figure 4.18).

Another aspect that the researcher wanted to explore was the possibility that different students, with different backgrounds, motivation, prior knowledge and attitudes may

react differently and produce different responses or input to the school design. This was in response to the question posed in the Literature Review:

To what extent do the perceptions and intentions of students who are most often and most readily listened to reflect the experience of those students for whom school is an uncongenial or alienating place?
(Fielding, 2001, p. 101).

To explore this aspect a further workshop was held with a group of eight students from a Pupil Referral Unit (PRU) in the same LA. This was undertaken so that a comparison could be made with what were seen to be ‘non traditional’ and disaffected students to establish if the suggestions made would be different. The same process for the workshop was used as the one described above and the findings are recorded in the tabulated comparison (Figure 4.18).

It proved far more challenging to obtain the views of the children in the PRU workshop than it had been to obtain the views of other children because they had more difficulty concentrating and had a more restricted vocabulary. For example when the students were asked what they liked about their old school there was a loud chorus of ‘*Nothing*’ and in a similar vein, when asked what they did not like about their old school, the chorus was at first ‘*Everything*’. It was also quite difficult to get them to focus on the process instead of drawing cartoons on themselves with the pens provided, or to stop two students from attempting self strangulation with the cord from the window blind. Eight students also quickly became seven after one attempted to demonstrate how thin the walls were by shouting obscenities through the wall to see if the teacher could hear in the adjoining classroom. This is a good example of the point made in the Literature Review; ‘*how what is said gets heard depends not only on who says it but also on style and language*’ (Fielding and Rudduck, 2002, p. 2). The student was making a useful contribution to the debate, the point she was making about the learning environment being adversely affected because of the sound transfer through thin walls was a very reasonable and valid point, the fact that she chose to demonstrate this by shouting an obscene question through the wall to her tutor was an unfortunate use of language, which despite the researchers protestations resulted in the student being excluded. The behaviour demonstrated by the students during this

workshop would appear to be similar to the findings of Solomon and Rogers (2001) who concluded that the behaviour was due to a deficiency of motivational and coping skills rather than as a reaction to inappropriate curriculum.

Another aspect of this exercise was to ask the students which building design they particularly liked from the display (the same display that was used at the case study and comparator schools). The students at the PRU got rather excited over the sticky dot approach to identifying their favoured design. With the students in the comparator schools this was an enjoyable exercise as the students slowly edged their way around the display (like potential customers at an art show) and then after careful consideration, placed their dot on the design of their choice. With the PRU students, a whole sheet of sticky dots disappeared as the designs were considered. The interesting outcome was that the Meadlands Primary was the school design that ended the day looking as though it had developed a bad case of measles, a design that was also chosen by both comparator schools. Despite the difficulties involved with the workshop, the findings again demonstrate the high level of consistency (Table 4.18) and the value of choosing to work with non traditional and disaffected students.

To explore further the unique perspective of the students and to answer the aspect of impact on design, in depth interviews were conducted with key people who had a role to play in the case study.

Interviews

Interviewing has been described as *'rather like a marriage; everyone knows what it is....and yet behind each closed front door there is a world of secrets* (Oakley, 1981, p. 31). For a researcher, however, there are therefore a number of problems that need to be considered and addressed to ensure validity is not questioned. There is, for example, recognition that interviewing can present considerable scope for manipulation (Kvale, 2001). There can also be a *'complex play of conscious and unconscious thoughts, feelings, fears, power, desires and needs on the part of the interviewer and interviewee'* (Scheurich, 1997, p. 73). Careful consideration also needs to be given to the interview setting itself, and the interviewer's monopoly of interpretation.

Those being interviewed on a one to one basis for this research will have responded to the researcher in different ways, simply because she is known to them in different ways. Some are colleagues she works with daily, some are friends, others are colleagues she works with very infrequently (second Pathfinder project team), others, at the school, due to the history with the LA may not trust her as much as others. The dynamics of the interview process were therefore complex. One strategy for countering this is to adopt what Weiss advocates as a novice position, '*disguising how much she knew and how perceptive and sceptical she was disarmed her respondents*' (Loftland and Loftland, 1995, p. 40). As her role in the case study Pathfinder project involves acting as an advisor and advocate for the BSF principles her ability to adopt a novice role was somewhat compromised but being aware of these complex dynamics did ensure that she tried to adopt a gentle, unassuming non directive approach to each of the interviews; making as few assumptions in advance as possible; recognising that her own behaviour would impact on those being interviewed and not presenting findings as facts but as the views of a participant in the research process. Transcribing the tapes immediately after each interview reinforced an understanding of how well this was being achieved and helped the researcher to remain vigilant.

A semi structured approach to the individual interviews was adopted, based on the research question, to explore what were the items that students brought to the project that are fundamentally different from those identified by the others involved and if the students had demonstrated a unique perspective. The interviews also attempted to establish what the impact of the student voice was on the completed school design. If the interviewee suggested that in their opinion there was an impact, the researcher would press for examples. The interviews also explored the impact the involvement in the design process had on the students. The semi structured interviews were felt to be the most appropriate as the researcher was able to probe deeper attitudes and perceptions but in a way that avoided interviewer bias. Although some notes were taken, all interviews with the adults, after obtaining permission, were audio taped and transcribed in full providing an accurate and detailed record of the interactions. This decision was taken following years of attending many meetings, reading the minutes and then having to check the 'apologies' section to ensure actual attendance. The view that we can not fully rely on our notes or recollection of conversations is one

well made (Silverman, 2006, p. 204). Those being interviewed were offered the chance to review transcripts. During one interview (CW) the tape failed and a transcript was prepared from the researcher's notes and checked with the interviewee. One small amendment was requested and made before the notes were included in the analysis. The researcher needed to be conscious of the fact that even transcription will involve inference (Atkinson, 1992) and will omit non-verbal behaviour. It will also in itself inhibit some people's responses, which is why the decision was taken not to use the tape when interviewing students. It did however provide an accurate and detailed record of the longer interactions. Most of the interviews were less than an hour in length but two exceeded two hours. Individual interviews were also conducted at the second One School Pathfinder project with the project manager, the Deputy Headteacher and the LA's Education Officer. The tapes from these interviews were transcribed and therefore available to compare with the interview transcripts from the case study school.

Conclusions

The research was conducted as a case study and then compared with two smaller comparator school projects, a PRU, a second Pathfinder project and a detailed analysis of three published works from the Literature Review findings. The case study alone did produce useful data but the ability to compare that data with other findings ensured an aspect of validity that would not have otherwise been possible. The inclusion of student voice from the PRU students was a valuable and unique exercise. Although the workshop was challenging, the outcome provided a useful insight into the views of students who may have found school to be '*an uncongenial and alienating place*' and a comparison with the '*perceptions and intentions of (the School Council) students who are most often and most readily listened to*' (Fielding, 2001, p. 101). The research methods, adapted from the Literature Review, were useful in capturing significant quantities of data, the amount of analysis that resulted was however considerable and time consuming, it was only possible because it was achieved over two years, committing four weeks holiday and fifty week-ends per year. The outcomes of this analysis are detailed in Chapter Four.

Chapter Four: Findings

Introduction

The first part of this chapter begins with the findings on the analysis and comparison of student, staff and parent voice at the case study school presented in tabulated format (Tables 4.1 to Table 4. 17). The student voice at the two comparator schools and the PRU are also tabulated (Table 4.18). The dialogue below each table compares the case study findings to the Literature Review findings (Table 2.1), the comparator schools and PRU, the group interview with the students at the second Pathfinder school, and other research findings. The objective for collecting this data was to ascertain if the involvement of student voice brought anything different or innovative to the design.

The second part of the chapter presents the findings obtained comparing the completed case study school design with the analysis of the student voice and from the analysis of interviews with members of the design/project teams at the case study and second Pathfinder schools. The objective for collecting this data was to ascertain what impact the student voice had on the completed design compared with that of other stakeholders involved.

The third part of the chapter presents the findings on the impact that the involvement in the design process had on the students, which is obtained from the analysis of the student outcomes from the DQI workshop, the interviews and the survey conducted with the Sorrell students.

Findings on the involvement of student voice to establish if it brought anything different or innovative to the design

This section collates and compares the comments made at the case study school by the students and staff at the focus group workshops, with those of the parents collected through interviews, as described in chapter three. The collated comments are then further compared with the findings from the comparator schools, PRU, second Pathfinder, and literature review.

Features	Student voice	Staff voice	Parent voice
Use of colour	10 Walls should be painted or have more colours 4 Classrooms should be more colourful 2 Canteens should be colourful	Colour coding or themes should be used throughout the building to make areas obvious	1 Lots of colour, I like the chequered wall design on the picture from Noble High School in the display
Specific colour	1 Everything should be pink		
Other decorative features	4 Remove hall curtains 3 Include a graffiti wall 1 Keep art block painting (shown in picture below) 1 Remove art block painting		

n = the number of student groups or individual parents making the suggestion; data collected 2006-7
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Design on the art block building referred to by the students (above).

The students’ voices in this project were eloquent on colour matters but their views did not add anything that might be termed unique or innovative. They wanted a more

colourful environment which accords with the results from earlier research (Blishen, 1969; Burke and Grosvenor, 2003; Sorrell, 2005). Their views also coincided with those of staff. Students specified the areas to be brightened up, the classrooms and the canteen. Staff were not specific but did want to see colour used to delineate different areas of the building. Students also mentioned particular aspects of the existing school; four groups wanted to remove the curtains in the hall; one group favoured retaining the art block exterior painting but one group thought it should be removed. This is a good example of how design will inevitably include an element of subjectivity and personal opinion, discussed earlier in this thesis (page 7). A parent liked the picture of the chequered paintwork at the Noble High School, included in the photographic display. Three student groups advocated the installation of a graffiti wall, which suggested the need to be able to take pride in an art form which is usually only possible through an illegal route. Overall, thirty of the approximately one hundred student groups made requests relating to colour but their views can only be seen as reinforcement of the expected rather than a discussion of something new.

This lack of originality and innovation was noted in the suggestions the students made on the use of particular colours. Only one student group were specific on colour and suggested pink (demonstrated on the flip chart as a bright fuchsia pink). Pink was also chosen by the Aspirations Group at the case study school along with lime green.

These preferences accord with research conducted with ten thousand children by Mahnke and Frieling (BSJ, Nov, 2006) whose findings demonstrated that children of secondary school age are likely to respond to tertiary colours like orange and purple rather than the primary colours preferred by younger children. Blishen (1969) also identified the student's need for colour, with purple specified. Burke and Grosvenor (2003) also found the students were suggesting lots of colour including rich purple on p. 24 and again orange and purple on p. 113. Once again therefore, student voice appears to reinforce received wisdom.

Table 4. 2 Collated comments from students, staff and parents on improving school buildings: improving communications			
Features	Student voice	Staff voice	Parent voice
Class changeover times	1 No bells 1 More bells 1 Bells that ring on time	No bells	No suggestions made
Whole-school information systems	2 Tannoy system 2 Notice boards (see also table 4.9) 2 Plasma screens (as above) 1 Radio handset system	Tannoy system Electronic notice/smart boards in all open areas (see also table 4.9)	
Physical guidance		External signposting	
Intellectual guidance		Advocates for pupils who can not express themselves well Raise the profile of the School Council	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The staff reached a consensus on no bells but the student findings were conflicting. One group of students wanted bells, one group wanted bells that ring on time and one group wanted no bells. This supports the view previously identified in the Literature Review that *‘there is no homogenous pupil voice even in a single working group but rather a cacophony of competing voices’* (Reay and Arnot cited in Fielding and Rudduck, 2002, p. 4). In earlier research one student said that *‘sometimes when the bell goes people get scared because they get pushed’* (Burke and Grosvenor, 2003, p. 115). This is a view supported by David Ashley who suggests that:

One of the most powerful reminders of the Victorian era is the school bell. The absence of bells has little effect on punctuality and tends to lead to a better flow of students along our overcrowded corridors because lessons begin and end over a five-minute period rather than the instant a bell rings.

The issue of corridor behaviour and overcrowding may seem trivial but it is an aspect of school life that students do not like and sometimes fear. Certainly, overcrowded corridors and the poor behaviour that often accompanies them undermine our attempts to create professional learning environments. We need to tackle the ‘school factory’ environment through creative timetabling and school organisation (Ashley, 2006).

The student voice was surprisingly quiet on the issue of bells, although this would appear to be an area where innovative and original suggestions could make a major

impact on an issue that affects every student several times a day. The Victorian symbolism of the bell, the crowding it precipitates, the potential for health and safety issues, bullying and behavioural problems would suggest that corridors should, as Ashley suggests, be considered as timetabled spaces, managed carefully with staggered lunch, break and lesson changeover times to create a calm environment. The need for change was reinforced during a recent visit to a new PFI school in Exeter which in line with current thinking has been built with wider corridors; however during the lesson changeover period the researcher was separated from colleagues by the hustle and bustle that ensued and stood nervously in a corner as several students punched and swung bags at each other and generally caused mayhem before lining up outside of their classroom and being told by their tutor to ‘calm down’ before entering for their next lesson.

External signposting was requested by staff. Although student voice on this aspect was quiet at the case study school, comparator school B students said there should be *‘better signs to show where buildings are’*, again reinforcing the consistency between staff and student voice. Electronic notice boards and plasma screens were also requested by both staff and students alike, although the rationale was not specified and the function could be either communication or presentation. This aspect has therefore also been included in Table 4.9.

Table 4. 3 Collated comments from students, staff and parents on improving school buildings: improving dining facilities			
Features	Student voice	Staff voice	Parent voice
Menu	45 Healthy and varied food 3 Unhealthy food available 1 "We want Jamie Oliver"	(See comments on breakfast club below)	
Vending machines	32 More/better vending machines, with hot chocolate 1 Ice cream van		
Drinks	13 Water available around the school and in class 1 Healthy cold drinks machine	There should be water fountains around the school. "Kids need water"	
Dining room	19 Appearance and comfort is important 3 Improve the queue system		3 Noble High School canteen is very nice
The need for separate spaces	10 Separate sittings for each year group 9 Bigger or separate canteens 2 Ability to take food out of canteen to eat in other areas	Canteen area, internet area or Cyber café with flexible hours There should be a staff dining area Lots of small cafes and not one big area- could a franchise come in? There should be a breakfast café More areas in which to eat at lunchtime- Too many students converge on the hall at lunchtime and break. Smaller areas to eat would be more conducive to eating in a civilised fashion and they could be used for other purposes during the day Internet Café - an area where adults can come in as well (see also table 4.15)	2 Internet café and social space for dining 1 The dining hall should be separate to the hall
Dining times	14 Breakfast should be available 10 Canteen or café open all day	A breakfast club before school starts, students will respond and concentrate more Canteen open all day with staggered use to reduce congestion	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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Sorrell predicted that there would be demands for 'a civilised lunch time with less chaos and more time to relax' (Sorrell, 2005, p. 35). At the case study school both the staff and the students had a significant amount to say about dining halls and canteens with the approximately one hundred student groups contributing one hundred and sixty three comments in total (Table 4.3). Staff and students were consistent on the need for a variety of spaces, the need for water or healthy cold drinks to be available at all times and the need for breakfast to be available before the commencement of classes. Nineteen groups of the students specified that comfort was a priority for them, a feature reiterated on general furniture (Table 4. 11). The students at the case study school made specific comments on the re-instatement of

the hot chocolate machine and the need to improve the queuing system. A couple of ‘fun’ comments were also included, requesting “Jamie Oliver” and “an ice cream van”.

The student findings at the case study school were consistent with the two comparator schools (Table 4.18) who wanted ‘*a large, modern canteen with healthy food and a relaxed atmosphere*’ at School A and ‘*a canteen that’s fun and pleasant; somewhere nice to eat packed lunches; a large canteen and a covered ‘picnic’ area outside so we don’t have to eat in the wet*’, at School B. This was also reflected by the PRU students who requested ‘*a spacious canteen*’.

The volume of comments on healthy eating in the case study school was much higher than in the literature findings (Table 2.1). This could arguably be attributed to the high profile of the debate on school meals as a result of the Jamie Oliver’s campaign to improve the quality of school meals and the fact that it was a theme that the students were asked to consider.

Table 4. 4 Collated comments from students, staff and parents on improving school buildings: learning environments and facilities			
Features	Student voice	Staff voice	Parent voice
Size	9 Bigger classrooms 2 Bigger hall (1 of which specified theatre style) 1 Bigger school	Larger learning spaces Small room for learning support in each area	
Format		The building should reflect independent & collaborative cross curricular learning There should be space for multi group delivery, but also discrete study rooms There should be House Zones; taught by ability not by age. Perhaps specialist rooms actually in house zones There should be discreet subject areas and It should be open but still have classroom space There should be sliding walls in some classrooms	1 It should have classrooms with flexible screens so that they can be opened up 1 There should be open spaces for staff and students to work together
Music	39 raised objections to the MP3 player ban or wanted to listen to music in breaks, in class or as background music		
Library	28 Bigger, better resourced and more accessible	Swipe cards entry system Extended hours Careers advice near library/resource area Library computers should be wireless laptops (see also table 4. 15) Library/Resource area with high level of computers (see also table 4.15)	1 There should be a big library with a security system (a staff member I suspect?). 1 It should have a big library, like at the local university
Sports Facilities	55 A swimming pool (the majority said indoor and heated) and 1 Remove the current "manky" outdoor pool 23 Bigger/better fitness suite 16 MUGA or all weather pitch 9 A skate park 8 A bigger sports hall with better availability 6 A bike/BMX track 5 An ice rink 5 Basketball courts 5 Bigger/better gym 5 A good climbing wall 4 An assault course 3 A dry ski slope 2 Tennis courts, with a dome 2 Improved cricket facilities 25 statements were made relating to other individual facilities such as equine, fishing, badminton, and athletics	Swimming Pool Gym Should have very good sports facilities Good climbing facility Links into Outdoor Ed and Key Skills Programme	7 A swimming pool (1 of which said heated with free energy (see also 4.13) 1 Archery facilities 1 A large astro-turf and fitness suite which will also generate income 1 It should have a fitness suite with videos
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The one consistent finding across time was the desire of students to have background music playing. Approximately a third of the case study students wanted music or MP3 players allowed during class. Earlier research revealed that students wanted music in craft lessons (Blisshen, 1969) or Bach and Mozart during exams and relaxing

music at other times (Burke and Grosvenor, 2003). The PRU students also suggested that there should be *'music playing around the school'*. This consistent demand for background music is a reminder of the warning made by the OECD (2001); that schools in the future will fail unless they are informed by a serious appreciation of young people, their lives, interests and needs in today's society. Clearly one of the needs expressed by student voice is the need for music to be part of their school day.

The demand for varied sport facilities was raised by the Aspirations group of students who said that they wanted *'more variety on sports e.g. volley ball and judo, a bigger fitness and a swimming pool'*. This was confirmed by the student workshop (Table 4.4), which it could be argued reflects the sport specialism of the school and also that the students were specifically asked to consider this aspect of sports facilities as a theme. It was however confirmed as a priority by both School A and B who identified the Astro turf pitch as something they appreciated in their current school and the PRU students who wanted *'high quality sport equipment and facilities'*.

Table 4. 5 Collated comments from students, staff and parents on improving school buildings: reception area, reputation and identity			
Features	Student voice	Staff voice	Parent voice
Welcoming	1 Make the school feel welcoming not just a big building (see also table 4.9)	A welcoming reception	No suggestions made
Security		Visitors can be seen as they approach and students if they leave	
Character		A strong reception area	
Inspirational			1 Needs a "wow" factor, not square, it needs to make you feel inspired and proud to work there (see also table 4.9)
Negative	2 No bubble gum 2 No graffiti		
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The students and staff agreed that the school should feel welcoming, a view supported by comparator school B who wanted *'a friendly welcome and nice front to the school'*. The pride issue was also raised at the second Pathfinder school where the students were very keen to find an alternative venue for their roll of honour and also to keep the flags flying at the front of the new school. This desire for the flag flying was also reflected in the drawing from the second Pathfinder design day (Appendix

D). The sense of pride in their school was yet again reflected by the four groups at the case study focus group who did not want to see bubble gum or graffiti in their new school.

Table 4. 6 Collated comments from students, staff and parents on improving school buildings: social spaces			
Features	Student voice	Staff voice	Parent voice
Chill out spaces and time	61 Spaces to chill out and have fun 9 Access to corridors at break 4 Time to socialise 2 Sleep-overs	Somewhere to go when it rains There should be space for (with choice) at break and lunch <ul style="list-style-type: none"> • Outside - loosely supervised • Outside - closely supervised (special area) • Inside - overseen by supervision • Inside - close supervision 	1 Somewhere to go at lunchtime
Common rooms	23 Common rooms 11 Rooms to work in		1 common rooms for each year group
Special rooms	8 Spaces as " safe havens" 3 Smoking room 1 Prefect's room	Prefects room Yr 7 spaces at lunch/break	
House rooms		Should we have Year or House areas at break/lunch, this cuts off friendships within peer groups and may cause isolation	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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Student voice was very vocal on the desire to have spaces and rooms to socialize, 'chill out' and have fun during break times. Even allowing for the fact that some groups of the students may have raised this more than once under different themes one hundred and twenty two comments were made signifying the importance this aspect attracted. There is a high level of predictability in the issues raised and consistency with those raised in the literature review (Table 2.1). The students in the comparator school also raised the need for a '*large social area for people to meet*' with the fun addition of '*a school pet*' and for '*open chill out spaces with cool furniture, comfy sofas, beanbags and a fish tank*' (School A in Figure 4.18) and the PRU students who wanted '*a communal room to socialise with friends*'.

Table 4. 7 Collated comments from students, staff and parents on improving school buildings: storage			
Features	Student voice	Staff voice	Parent voice
Lockers	23 Need for lockers 7 Access to lockers at breaks	Pupil lockers in house areas or tutor rooms "Kids need lockers" "Staff need lockers" Students should have pigeon holes to make them take more responsibility Lockers for upright bike storage (see also table 4. 13)	No suggestions made
Food storage		Cold storage for food and drinks	
Coat storage		Staff and student storage away from classrooms which can be dangerous	
Bag storage		To avoid tripping in classrooms	
Departmental		Storage is needed in all departments	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The Aspirations group interview at the case study school identified the need for *'lockers for everyone with space for sports kit and instruments'*. They also identified their preference for keeping the same locker while they are at the school and for a key in preference to padlocks, which they viewed to be a security risk.

The surprising absence of comments on the need for storage by the Blishen students (Table 2.1) in comparison to the case study findings (Table 4.7) may be due to the fact that storage was not such an issue in the sixties. Personal experience of school at this time would suggest that school desks and locker space may have been generally available for storage. As desks have been replaced by tables and lockers have been removed or reduced in some schools because of vandalism issues, the burden of carrying around heavy bags of books and equipment has become more of an issue that has resulted in students voicing their concern.

Staff voice has been more vocal on storage during the development of the design than on any other subject. *'Storage is needed in all departments'* disguises the passion with which this issue has been debated between the design workshop day and the signing off of the final plans, with one department even threatening to stay in temporary buildings which provided good storage space unless they could increase their allocation. Discussion with colleagues involved in other BSF projects identified a similar pattern.

'I want my books in that classroom', 'where's the storage?' If I've been asked about storage once I've been asked seven million times.

(Headteacher at the BSF SW Meeting, 27th April 2007).

Table 4. 8 Collated comments from students, staff and parents on improving school buildings: toilets			
Features	Student voice	Staff voice	Parent voice
Improvements	20 Improvements needed	There should be individual toilets	No suggestions made
Accessibility	2 Accessible at all times		
Security		Single units accessed from a corridor so that just one student can use each one? Less chance of vandalism and students congregating to have a smoke! Or CCTV outside to monitor use	
Other aspects	5 Should be showers 3 Should have mirrors	There should be shower facilities, "kids need shower facilities"	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The comments about needing clean and vandal free toilets (Figure 4.8) were consistent between the case study school and the literature review. The need for decent toilets was also raised by the two comparator schools, in school A the students said that *'toilets are vandalised- even the new ones- and when they are broken it takes ages until they are fixed. Toilets are so bad you try never to use them'*. The comments were very similar in school B where the students said that *'toilets are horrible dark, old and cramped. They get vandalised. Toilets can be threatening places for younger pupils'*. The PRU students also said that they disliked *unhygienic toilets* and at the interview with the students at the second Pathfinder school, the students said the toilets *'stink; some of the locks don't work as well. They have swear words all over them and stuff like that'* (Interview with students at second Pathfinder school, 12th December 2006). It was interesting to note that twenty two of the case study students commenting on the finished design (Figure 4.19) did raise concerns about the need for more toilets even though there are more planned than the number currently existing in the present school. The installation of mirrors in toilet facilities was an issue raised at the case study school. Another aspect relating to toilets was the dislike of the Bexley Academy toilets (Appendix A). The designers had not consulted with students but obviously thought it would be good fun to cover the

walls with blackboards, presumably of the opinion that if toilets attract graffiti then why not make this a feature? Unfortunately the students were not impressed.

One project where designers have produced an innovative design in response to student concerns is at Bedminster Down School where the designers produced a cubicle arrangement with hand-washing facilities open to a busy corridor, designed to reduce bullying opportunities. The design is said to have been developed in close consultation with students.

Figure 4.1 Bedminster Down School: toilet block designed following consultation with students



Table 4.9 Collated comments from students, staff and parents on improving school buildings: aesthetics

Features	Student voice	Staff voice	Parent voice
Corridors and circulation	<ul style="list-style-type: none"> 5 Staircases (2 wider, 3 fewer) 3 Elevators (term used, not lift) 3 Escalators 3 Automatic doors 2 Bigger corridors (street) 1 Trains 	<ul style="list-style-type: none"> Corridors wider and one way systems enforced There should be more than one central area, we want wide central courtyards 	<ul style="list-style-type: none"> 1 It should have big flow through corridors 1 I like the open space, open railings and raised walkways.
Display areas	<ul style="list-style-type: none"> 9 Art work, statues, exhibitions, notice boards or plasma screens displaying work 5 Water features or fish tanks 2 Notice boards (see also table 4.2) 2 Plasma screens (as above) 1 Tropical plants 	<ul style="list-style-type: none"> There should be a gallery at the front and internal displays built into walls Flexible areas for events/ exhibitions including outdoor covered space. Electronic notice/smart boards in all open areas (see also table 4.2) 	<p>There should be:</p> <ul style="list-style-type: none"> 1 provision for Cornish art to be on display 1 a viewing area during construction with a web cam (see also table 4.14) 1 Tropical plants
Shape of building	<ul style="list-style-type: none"> 3 Round (1 of which included round doors) 1 Circular or hexagonal 1 An odd shape that stands out 		<ul style="list-style-type: none"> 1 I'm not too sure about the weird roof shapes at Truro College
Materials	<ul style="list-style-type: none"> 9 Lots of glass windows/roofs or corridors 	<ul style="list-style-type: none"> We liked the mixture of wood and glass- not all of one thing It should be constructed of local things, slate and stone 	<p>Not too much:</p> <ul style="list-style-type: none"> 2 glass, with overhangs to give protection from direct sun (see also table 4.10), too hot, greenhouse effect 2 steel and glass, like Ships & Castles (swimming pool) 1 dark Cornish granite, it is better to use green or earthy colours 1 concrete; it's too aggressive. <p>I like:</p> <ul style="list-style-type: none"> 2 timber designs, wood will mature and not date. 1 the different finishes on the floor, like at Noble. 1 local stone and materials 1 It could be pre-fabricated concrete to speed up the build, but not steel frame 1 Doors that are fit for purpose and not automated, they break
Themes	<ul style="list-style-type: none"> 1 Prehistoric 1 Different theme for each subject 1 Scottish 1 Comedy 1 Illusions 	(see comment on Eden feel below)	
The feel of the building	<ul style="list-style-type: none"> 1 More open plan 1 More open space 1 More enclosed 1 make the school feel welcoming not just a big building (see also table 4.5) 1 More relaxed atmosphere 	<ul style="list-style-type: none"> There should be lots of light and indoor space looking like Eden (note that this could also reference themes and comparison with other buildings) There should be natural light in rooms 	<ul style="list-style-type: none"> 1 The building needs to have a wow factor, not square; it needs to make you feel inspired and proud to work there. (see also table 4.5) 1 It should fit into the landscape and be aesthetically pleasing 1 Truro College has it right but I don't like CCC at Tremough 1 It should have lots of natural light 1 There should be lots of light open space like in a shopping mall and even water features 1 It needs to be functional and not too wacky

n = the number of student groups or individual parents making the suggestion; data collected 2006-7

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Aesthetics (Figure 4.9) was an area where everyone had a lot to say, especially the parents. This was in part because parents were being asked their opinions as they stood alongside the photographic and the looped plasma screen displays. There were some clear concerns expressed about the need for the design to reflect the local materials and avoid too much glass and use a mixture of materials and textures. The need for good natural light, open and flexible areas and courtyards were also identified.

The ‘wow’ factor was raised by the Aspiration group and also by one of the parents. Wide and interesting corridors were consistently requested by the students, with space created for their work to be displayed. This was also an issue reflected by the students from Tameside at their design day on the 12th July 2006 (Tameside, 2006). In their presentation a group of students gave a talk about their trip to the new Chafford Hundreds School in Essex:

The school corridors didn't work. There was no pupil's work on the walls which gave it an empty feeling, just lockers and white walls, like a prison really. Somewhere you did not want to be. I did not really understand why; you should be able to take pride in your work (Karen).

It is worthy of note that the plasma screen used during the display (Appendix C) was almost totally ignored during the two days that the researcher was in attendance. This may have been partly to do with its location and may have been more successful if the students themselves had been involved in creating the slide show.

Table 4. 10 Collated comments from students, staff and parents on improving school buildings: temperature and acoustics			
Features	Student voice	Staff voice	Parent voice
Temperature and ventilation	1 Fans in every room	They should stop the sun pouring in with wood cover The building should include climate control	1 Some of the designs have too much glass - too hot, greenhouse effect (also included in 4. 9)! 1 Not too much glass, with overhangs to give protection from direct sun. (also included in 4.9)
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The case study students were surprisingly quiet on temperature, especially in view of the fact that they were without heating for over a week during the winter when the boiler pipes collapsed and given the high profile today of global warming. The comparator schools did however raise concerns about temperature in their existing school. Concerns over temperature however, were raised more frequently by the students back in 1969. They not only made several references to the need for consistent temperatures but also said *'not too much glass or we ripen like tomatoes in a greenhouse'* (Blishen, 1969, p. 48). No comments were made about acoustics.

Table 4. 11 Collated comments from students, staff and parents on improving school buildings: furniture			
Features	Student voice	Staff voice	Parent voice
Seating	26 More comfortable chairs 6 Sofas 4 Bean bags 2 Rocking chairs 2 Spinning chairs 1 No science seats 1 Cushions	No suggestions	No suggestions
Tables	5 Improved tables, bigger or softer! 1 Higher tables and chairs for big people		
General	1 Get rid of current furniture		
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The need for comfortable furniture is an area of considerable interest and consistency raised by the students at the case study school but completely missing from the comments made by the staff and parents (Figure 4.11). It was also an area raised by the Blishen and Burke and Grosvenor students who had a lot to say on this aspect (Figure 2.2). The students in school B also raised the issue that chewing gum under desks was an issue to them and that often happened because *'pupils don't respect scruffy old furniture'*.

Table 4. 12 Collated comments from students, staff and parents on improving school buildings: outdoor spaces			
Features	Student voice	Staff voice	Parent voice
Hard play	7 More hard play 6 External non sport activities	More hard areas, well landscaped	
Soft play	5 More soft planting areas	Less grass area as it so often out of bounds	1 Good landscaping that will stay good
Variety		A variety of external areas Allotments (to encourage understanding of where food ingredients come from). We should then use the produce in Food Tech lessons/lunches. (also 4.13)	
Outdoor Education ¹	27 It should be bigger, better resourced and more accessible		
External shelter	4 More shelter outside	As much as possible should be covered area	See also from seagulls
Outdoor classes	15 More classes held outside		
External seating	6 More external seating		
Seagulls	19 Something done about the seagulls		1 Somewhere to sit away from the seagulls
Rubbish	14 More bins and less litter		
Picnic		An open picnic area	
"Fun"	5 Animals outside 1 Sun beds		
Note ¹ a specific area in the school where the students learn balance, confidence and team building skills			
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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Pleasant external areas were raised by parents and staff but consistently by students (Tables 4.12, 4.18 and 2.2). A high level of concern was raised about the seagull problems, an issue that was also raised at the second Pathfinder school. On a recent visit to the school the researcher arrived just before a break and witnessed the bell sounding. A huge cloud of seagulls arose in response to the bell and began circling the playground in anticipation of the students emerging with snacks and sandwiches. As the children emerged several birds swooped down in an attempt to terrorise or bully the students into dropping or abandoning food.

Table 4. 13 Collated comments from students, staff and parents on improving school buildings: sustainability			
Features	Student voice	Staff voice	Parent voice
Maintainance			1 It should be low maintenance
Green	1 A vegetable patch (also in 4.17)	Allotments (to encourage understanding of where food ingredients come from). We should then use the produce in Food Tech lessons/lunches. (also 4.12)	3 It should be green and environmentally friendly
Green power	1 Solar panels		1 Zero energy impact, solar/wind power 1 Natural light, with solar and other alternative energy 1 Environmentally friendly with 'hot rocks'. Good insulation and water harvesting 1 Climate control and recycle the water for toilets 1 The swimming pool should be covered and heated with 'free' energy (also 4.4)
Green travel	4 A good bike shed	Cycle storage and cycle path should be installed to encourage the use of bikes instead of cars as a means of exercise. Lockers for upright bike storage (also at 4.7)	
Recycling		Bins should be available	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The parents were very conscious of green issues at the case study school (Table 4.13). This is not surprising when considering the location of the school, the number of wind-farms nearby and the local industry of hot rock technology. It was, however, surprising that the students did not raise this issue as much as the students quoted in Burke and Grosvenor. The Blishen students were also quiet on this area but in 1969 the issue of global warming was not such a high priority as it is today (Table 2.2).

Table 4. 14 Collated comments from students, staff and parents on improving school buildings: security			
Features	Student voice	Staff voice	Parent voice
CCTV	12 More cameras/CCTV	CCTV	1 There should be a web cam (also included in 4.9)
ID cards	11 ID cards	ID cards worn by all adults Name tags for all staff for identification on site Visitor ID badges/system Personalised ID cards for anything	
Systems			1 Local businesses should be used with open protocol systems for fire and security so that you get the local support
General security	3 Better security 2 Gates that lock 2 Secure entry system 1 Doors that lock	Fewer entrances and exits Secure entry Panic buttons in rooms	
Bullying	18 Concerns about bullying 2 Concerns about bitching (see also below) 2 A place of safety where bullies can not see you	Anti bullying strategies Anti bullying support team have a base n EST area	
Building and site design	3 No corners or secluded areas (because of bullying) 1 More fire exits	No corners - visibility open Wide corridors with no corners Access to all areas should be as safe as possible Safety - getting away from small corner areas Community entrance and areas away from students Safer entrance to school site, no cars or busses, dropping off area Car parking - well lit, separate entrance exit. Paved/railed bays for bus park	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The case study school students and staff raised the issue of ID cards and their various uses. In addition to those identified in Table 4.14, the Aspirations group thought that the cards should be on a necklace and should facilitate registration, give access to the library, enable cashless payment for lunch to allow privacy to students receiving free lunches and have a reward card built in. This was one of the very few unique comments made by students.

The case study school students and parents raised a considerable number of issues about bullying, which was surprising because the school on a number of occasions made statements about the fact that they did not have an issue with bullying. This was addressed by the Deputy Headteacher during his interview:

I would be surprised if they didn't raise it, it's a human behaviour they won't want, they want to avoid and they would want to actively work against. They are not afraid to challenge are they, if they are talking about it they are not in denial, we have bullying in the school but it gets dealt with. It has not dominated our design process, one thing that is important is that it is not designed to the lowest denominator all of the time, or else you would just design Strangeways wouldn't you? If there were no private spaces where people can reflect in small groups of four or five because of worries about bullying you would end up with Crawley town centre wouldn't you? Everyone could see but there's no soul. It's about getting a balance (Notes of interview with the case study school's Deputy Headteacher, 27th April 2007).

Bullying was also raised by the students during the interview at the second Pathfinder school who said that this was mainly an issue of girls taking over the toilets at break time and 'bitching' at others who tried to gain access. The Deputy Headteacher acknowledged that this was an ongoing problem they were trying to address. The design at Bedminster Design School (Figure 4.1) was specifically designed to overcome this issue.

One of the criteria for the architects (Fosters) at the Bexley Academy in Erith, Kent was the need to create a design that would overcome the issue of bullying and poor behaviour, prevalent in the students' previous school (Figure 4.2 and 4.3). Entry to the school is through one main entrance, either by swipe card or a door entry system operated from the reception desk. The desk is situated adjacent to the entrance lobby and facilitates a complete view of those approaching the school via security cameras. As the Headteacher commented, '*One thing you will see today is everything*' (personal transcript notes, the Bexley Academy visit, 7th October 2005). Because of the glass walls in the classrooms and the open plan design it is possible to see from one side of the school to the other. The central atrium and open stairways leave few opportunities for bullying, and have, according to the school, had a major impact in improving student behaviour. Although students were not involved in the planning and design stages of the Bexley Academy, the benefit of the design for improving

security and reducing the opportunity for bullying was a major advantage identified by the students who accompanied the researcher on the visit (Appendix A).

Figure 4.2 The Bexley Academy main entrance



Figure 4.3 The Bexley Academy: a very open design

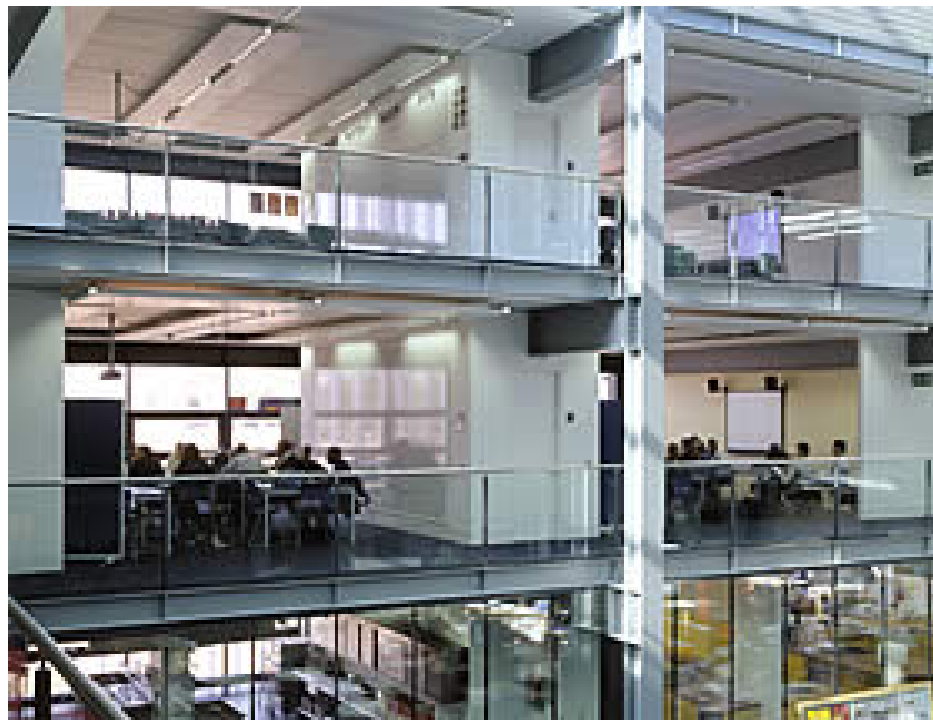


Table 4. 15 Collated comments from students, staff and parents on improving school buildings: resources			
Features	Student voice	Staff voice	Parent voice
ICT	39 More, or better computers, or better access 38 Every student should have a laptop computer 5 More smart boards/interactive white boards 2 specified flat screen 1 specified wireless	ICT & multi media will be a prominent feature There should be an Internet Café - an area where adults can come in as well (this comment also included in 4.3) Library computers should be wireless laptops (also included in 4. 4) Library/Resource area with high level of computers (also included in 4.4)	1 Lots of cutting edge IT 1 It should be equipped with high speed technology, lighting, environment and technology rooms and easy to use audio visual. (I think these were staff pretending to be parents)
General resources	9 Better resources and access to them 5 Better TV's 1 Better technical resources 1 Sky dish 1 Access to video recording in class 1 Cameras	Finance Strong room Exam space Pupil Interview Room Dedicated meeting/group rooms Uniform Room/changing area/lost property and equipment shop Cleaner's cupboards	1 Improved parking, especially on parents evenings
Music resources	35 Wider variety or better access 11 recording studio	Practice music rooms for parents to practice their musical instruments We need our own radio station; put responsibility on students to run	
Performing Arts and Media	16 Improved performing arts 8 Improved dance facilities 2 A stage 2 Radio station 1 Film studio	Theatre identified as a must have Lecture Theatre/Drama Theatre, large performances Community arts theatre idea Video, Media & Journalism suites Media Resource Centre	1 There should be Media education 1 It needs a multi use theatre for drama and external productions 1 There should be a TV studio
Art and Design	16 Improved art facilities and equipment 1 Improved textile area		
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The students in the case study school did raise a significant number of issues about media, performing arts and music resources (Table 4.15), areas that are severely under-resourced in the existing school. The demand for high quality technology was consistent across the comparator schools and the PRU (Table 4.18), and the second Pathfinder school where one student said *'I think there will be more computers, they will become more advanced and cheaper as well so you may have a printer in each class and you can just load the work onto the computers, everyone with their own computer, or laptop'* (Interview with students at the second Pathfinder school on 12th December 2006).

Table 4.16 Collated comments from students, staff and parents on improving school buildings: health and welfare			
Features	Student voice	Staff voice	Parent voice
Disabled access	2 Wheelchair/disabled access	One child with restrictive height- door handles, canteen, ICT benches etc. Hearing systems and sight impairment systems should be included	3 Good disability access
Health advice and guidance	4 More nurse availability 2 More counselling services 1 A fit nurse! 1 A dietician 1 Social worker	School nurse on site for instant access and input into healthy living sessions	1 Health education and promotion
Health facilities	10 Better facilities when they felt ill or upset	First aid room Space for students/staff that are unwell, comfortable area for privacy Cystic Fibrosis ADHD room	
Career advice	16 Connexions or career counselling (also in 4.17)		
Coaching	4 Specialist coaches/coaching		
Centralised services		Centralised Support Unit, encompassing all of the EST, staffed by non-teaching staff, to include: First Aid Room, Cool Off Room, Connexions space, counselling room, Drop in Room (support team), Parents' Interview Room, Base, etc.	
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The case study students raised a significant number of issues around counselling on health and future career issues (Figure 4. 16). This was not an area that other students raised, either in the literature review or in the comparator schools. This could be partly because the students were asked to consider the 14-19 agenda and a healthy lifestyle as themes. Ten groups voiced the need for better facilities when they felt ill or upset which may reflect the inadequacy of the current situation where students sit with the sick bowl in the main reception area awaiting collection by parents.

Table 4. 17 Collated comments from students, staff and parents on improving school buildings: work experience and vocational education			
Features	Student voice	Staff voice	Parent voice
Work experience	75 More access and more varied work experience	Provision of vocational education for less academic pupils to raise self esteem, reduce dissatisfaction and anti-social behaviour	
Work advice	16 Connexions or career advice (also in 4.16)	School to create team of mentors- from Tremough, business, community to work 1:1 with pupils on course selection, target setting Invite contributors from outside of school Artists in residence etc., music, theatre	
Facilities	10 A salon 8 A shop 1 A crèche 1 A vegetable patch (also in 4.13) 1 Access to marine biology	Stands for pupils to sell their wares, of things they have been making at home Allotments (also in Figure 4.13) Creche/Nursery If we have a vocational centre, train adults to work voluntarily, this would require a training centre for adults in the vocational centre Avoid places looking like classroom for example can workshops look like industrial areas?	1 Covered outside area for practical/vocational teaching
n = the number of student groups or individual parents making the suggestion; data collected 2006-7			
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The case study students raised a significant number of issues around work experience and vocational education (Table 4. 17). This may be because the case study students were asked to consider the 14-19 agenda as a theme. This was not an area that other students raised at such a level, either in the literature review or in the comparator schools A and B. It was however, an area of concern for the PRU students (Table 4.18) who appreciated the opportunity to practice their catering skills in the PRU kitchen and also thought a new facility should have ‘*a shop, perhaps run by the pupils*’.

To test the consistency of the student voice in the case study school the outcome from the two comparator schools and the PRU were reviewed. The comments on what the students liked and did not like in their current school had a high level of consistency with the case study findings and have been added to the dialogue above where appropriate. The students were also asked what they would like to see in their ‘perfect school’ and the responses are tabulated below (Table 4.18).

Table 4.18 Findings from the comparator schools: the students were asked what they would like in their 'perfect school'

School A	School B	Pupil Referral Unit
Airy, comfortable but practicable classrooms with lots of light to encourage children to learn Lots of natural light and clean fresh colours Spacious areas with big windows. Lots of wide open areas. Large, neat layout – feeling of open space Clean modern lines Modern classrooms and infrastructure	Big and airy classrooms with modern decoration Fresh feeling to the building Clear, clean, light environment Clean, no mildew or mould on walls Bright classrooms big enough to move furniture around in Bright and airy spaces Modern, well furnished, large rooms	
Large social area for people to meet and a school pet. Open chill out spaces with cool furniture, comfy sofas, beanbags and a fish tank Somewhere to go during break	Lots of space out and in	Well resourced library Communal room to socialise with friends
	Somewhere to go out at lunch Outdoor spaces with covered seating Lots of green spaces with trees and benches	
	A friendly welcome. Nice front to the school. Better signs to show where buildings are Toilets with grey water harvesting	Hygienic toilet and shower facilities; Secure lockers Interactive whiteboards in all classrooms Computer suite with plenty of computers State-of-the-art science labs Music playing around the school
More computers with plasma screens More technology like swipe cards		
New modern equipment for every faculty Proper music facilities with somewhere to practice and perform Modern art department with top of the range kit	Modern science labs we can work in A stage for drama	
Large, modern canteen with healthy food and relaxed atmosphere. Lounge/ internet café with computers	A canteen that's fun and pleasant. Somewhere nice to eat packed lunches. A large canteen A covered 'picnic' area outside so we don't have to eat in the wet	A spacious canteen
		High quality sport equipment and facilities A shop, perhaps run by the pupils Bubbles from the ceiling
Data collected 2006-7 © Wendy Mason		

There was no documentary evidence at the second Pathfinder school of their design workshop but the students did discuss the suggestions they made on that day during the interview session with the researcher. The only suggestions that the students could remember making, that were fundamentally different to anything raised by the design team, were the need to find a place in the new school for the World War roll of honour; a desire to continue the tradition of flying a flag at the front of the school (both examples of students having a pride in their school) and a particularly difficult road crossing, between the village and the school, that was discouraging pedestrian routes to school. It was interesting to note that the students in Dorset had the same concerns about seagulls as the students at the case study school. Evidence of the

pride issue on the importance of flying a flag at the front of the school is reinforced by the picture from the comparator school's design day (Appendix D).

The impact of student voice on the completed design or design process

This section considers the impact the student voice may have had on the completed design or the planning and design process. The findings from the group interviews and focus group workshops held with the case study students at different stages of the design process were compared with the completed design to see if any of the suggestions made by the students had been incorporated. The interviews at the case study school and the second Pathfinder school were then analysed to establish the perceived impact on the design or the design process.

The three students involved in the DQI exercise were invited to a second group interview described in chapter three. The following comments were made to the researcher in the presence of the design architect:

'I like the mini Minack' [external amphitheatre] (Sophie).

'I'm not sure about the external chill areas, they look too small and unless we are allowed to use the courts during breaks we may not have enough space for ball games (Ben).

'The rural science area is going to get vandalised' (Sophie).

'The bus area needs to be much better than at the moment, its hell' (James).

'The ARB should have a nice external area, with colour and nice things' (Sophie).

'The corridors, with lockers along the side make it too narrow, and this link corridor is much too narrow' (Ben).

The corridors did eventually get amended, but because they failed to reach the contract specification, not because of the impact of the students. The rural science area was later moved and the play courts were combined and enlarged, but this was because the ecology planners refused to approve the plans without changes as the original design interrupted bat flight pathways. Changes were therefore made to the design on areas identified by the students as problematic but not because of the impact of the students.

A focus group consisting of three year groups was established to consider the completed school design and is described in chapter three. The student comments, produced on sticky notes were transcribed into a document that was made available to the researcher for analysis and tabulation (Table 4.19). The numbers in the grid represents the number of students who made the comment.

Table 4.19 Student consultation on completed school design

What We Like About the Design	Y.11	Y. 9	Y. 7	What We Don't Like	Y. 11	Y. 9	Y. 7
The chill out areas	30			Separate chill out not with Y10	9		
The climbing wall	3			Yr 11 will take over			1
Outdoor activity areas	4	4		Too many		3	
The games courts	2			Too square		4	
The dance studio	8	26	15	Too many	6	6	2
The street	19	19	24	More space for taxi	1		
The (street) balcony		9	9	Wind Turbine	6		
The building design	18	6	4	Looks like xxxx College ³	3		
Football pitches	8	33 ²	4	Too many sport things	1		
Sports Hall	7	18	19				
Mini Minack (amphitheatre)	20	23	3				
Changing Rooms	4	4					
Bus Stop	2						
Astro	6	33 ²	1				
Wind Turbine	5						
More Bins	7						
Media section			1				
Trampoline area			1				
The Hall			5				
The clubs (?)			1				
Chill out rooms ¹			6				
Science area			1				
More space		23	4				
Music Area		7	2				
Basketball court			1				
Art studio			1				
Computer rooms			1				
				No swimming pool	31	21	11
				More toilets	8	6	8
				No outdoor seating		7	3
Design of cafe		4	9	Design			2
				Too small		3	
				Art block staying		6	
				Blue theme		2	
				No skate park	3	3	
				No shop	3		
				No salon	2		
				No McDonalds	2		

Data collected 2007 © Wendy Mason

¹ Slightly confusing message because there are no chill out rooms, there are spaces in the street and there are play courts labelled chill out spaces but no rooms.

²The students put pitches and astro together so this is shown in both columns.

³Very perceptive, it is the same architect.

It was obvious that the students on the whole were fairly satisfied with the completed design; there was a major concern, sixty three comments, (almost 10%) about the

lack of swimming pool, which was originally raised by fifty five groups (more than 50%) during the design day (Table 4.4). This was not however a direct comparison because on the design day the student groups made numerous suggestions, on the feedback day they were only given the chance of one comment so that to use this on the swimming pool issue did indicate the students were passionate about their point. (It was however obvious that with 574 comments and only approximately 540 students a few must have 'cheated' and included more than one sticker). From the remaining strength of feeling on the need for a swimming pool it would appear that there was still an issue of managing expectation with students. Any design has to be a consensus view and therefore inevitably not everyone will achieve what they want.

In addition during the design development stage things will get trimmed back by the process because of costs and students will need to be prepared for that to happen. Many students when asked what should be included in a new school will suggest a swimming pool. Student voice at the case study school was no exception but this was totally ruled out by the school management due to the politics of the Local District Council (who run their own and does not want competition) and the high cost of running a pool which the school would not contemplate. Six students raised concern about the lack of a skate park which was identified by nine groups during the design day. These are good examples of where the students could have been involved in citizenship debates.

Perhaps surprisingly there were concerns expressed that there were too many sports pitches in the new design, although this was overwhelmed by the support for the sports facilities. This would enforce the views that *'There is no homogenous pupil voice (sic) even in a single working group but rather a cacophony of competing voices'* (Reay and Arnot cited in Fielding and Rudduck, 2002, p. 4). There was also concern over the perceived shortage of toilets and lack of external seating. Changes were made at this stage of the design to the number of toilets, but again this had nothing to do with the student voice but came about because a DCSF directive was issued on improving privacy and dignity by eliminating urinals in all new school designs. The only item where negative comments outweigh positive comments is on the issue of the wind turbine. The case study school is in an area where there are a number of wind farms but also a very active campaign to resist any increases.

The research explored through individual interviews with five members of the design group, what if anything the students had contributed that had actually influenced the design team and found its way into the finished design. The view in the case study school was:

I can't think of anything. ...I think more enlightened designers pick up on those issues and involve them in their design anyway.

(Interview with case study school's Client Advisor Architect, 13th January 2007).

Interviews with the design team at the second Pathfinder school suggested that this was in accordance with their perception of the student voice impact on the completed design:

To be totally honest with you, as far as I'm concerned, this is me talking, no... because all of the stuff that came out of the conversations with the children, was stuff that anyone with experience in designing new schools would know from previous projects.

(Interview with the Project Manager of the second Pathfinder school, 12th December 2006).

During one of the conferences visited (EBDOG, 2006) the researcher was presented with the opportunity to share findings with the Solihull Pathfinder BSF Project Director who has conducted considerable research into the benefits of involving student voice in school design. He followed up the discussion with the following e-mail:

I am not aware of any empirical research that absolutely guarantees that involving pupils creates incremental value to outcomes. Most is about the feel good factor, positive pupil feedback, better outcomes in terms of pupil satisfaction, reduced litter, reduced absenteeism

etc. (e-mail from Mark Fenton, 4th December 2006 following discussion at EBD OG meeting 23-24th November 2006).

At the Bedminster Down School in Bristol, pupil involvement is claimed to have resulted in a design for toilets that was fairly unique (Figure 4.1); a unisex toilet

block with individual toilet cubicles. The hand washing facilities are open to the busy corridor. *'There is no question it has reduced incidents of bullying'* (TES 4th May, p. 9). Without further research however, it would be difficult to identify how much of the design concept came from the student voice, or if it was the design solution put forward following student voice raising issues about bullying in toilets, as they consistently do.

One piece of information that the staff and students at the second Pathfinder school failed to mention but which was raised as significant by the design architect at the SW presentation day on the 26th March 2007 was the diagram (Appendix D) representing the day in the life of a student. The student's day is shown as an endless journey of moving around the school, up and down stairs and through corridors, while the teachers' day is depicted as remaining static with everything revolving around them. The architect indicated that this had influenced his thinking on circulation routes by creating *'Ease of movement between spaces and general teaching, with teachers able to move rather than have specific class spaces'* (e-mail from David Stansfield, 2nd April 2007). This issue was, however, only raised by one student during the design day but even then it is not an innovative solution as it was also raised in earlier findings (Burke and Grosnenor, 2003, p. 142): *'the teachers would come to your classroom for most lessons'*. It is also difficult to be sure if this did impact on the designer or if it simply confirmed or reinforced the architects earlier experience of working on several projects. The possibility of this having an impact on the finished design was followed up with the Headteacher at the school who said:

No, being a 13-18 school, the idea of a home base, whilst initially suggested by architects etc, wouldn't really work - the nature of our age range lends itself much more to a Faculty based approach

(e-mail 7th May 2007).

We can see therefore that student voice, represented by the architect's interpretation of the voice of one student, failed to have any impact because it was totally discounted as impractical by the Headteacher. This home base and the reduction in the amount of student circulation was the concept behind the original design for

Djanogly Academy in Nottingham and why the architects (Fosters) felt very comfortable about placing lockers within classrooms and keeping corridors locker-free; to increase circulation space and reduce the risk of lockers being vandalised. The architectural concept, however, initially failed at the Djanogly Academy. An interview with the Headteacher revealed that this was because teachers wanted their own rooms and therefore pupils continued to carousel around classrooms from the day the building was opened (making access to the lockers fitted into classrooms very difficult). Plans are now in place at the Djanogly Academy, for year seven to remain in base rooms, with further plans to increase this to year eight in future years. The Headteacher indicated that although he still supported the design concept of home base rooms, staff resistance had been considerable. The impact of staff voice prevented the original home base design concept from being implemented. It has since taken two years to prepare staff for the change that eventually took place last year but there is still considerable resistance to extending these changes.

Searching through other recent projects nationally it was found that the new David Young Community Academy in Seacroft, Leeds was: *'inspired by the students who worked with the architects to create their 'perfect place to learn'* (B4E, 2006, p. 7). However, when it came to describing the input of the students it amounted to:

Some students came to our offices in Sheffield where we looked at their ideas for 'day in the life' and how they would use the building. They told me about how they felt they needed more social space than a traditional school might have. You can see these different social spaces in the school. The students even had an influence on the colours we chose for the walls (B4E, 2006, p. 7).

This was a magazine article, a brief write up supported by a gallery of photographs to demonstrate and advertise good practice. It is difficult to assess the impact the student voice had on these decisions. (An attempt to contact the company by e-mail was made by the researcher, but they did not respond, despite a follow up request for information). The interesting aspect is that the two major priorities identified by the report were social spaces and colour, which again reflect the earlier findings in the research. It is also interesting to note that the designers stated that the school was

‘inspired’ by the students. As indicated in the Literature Review, the Zoo School or School for Environmental Studies in Minnesota was inspired by the students but it was their chosen teachers who actually created the design brief. It would therefore appear to be possible for students to inspire in ways other than through direct input to the design.

Despite the fact that the procurement route for the One School Pathfinder project took away the concern over confidentiality identified as a barrier for the PFI route, the need for speed, the impact on the students’ learning and the resource implications, to involve student voice at any significant or meaningful level on anything but small aspects of the whole school design, was still a problematic issue at the case study school. This view was echoed in the second Pathfinder school where following the first design day, the shadow groups were established. In reality only the memorial garden group and the school grounds ecology group were being involved at a stage that could have any major impact on the finished design.

The lesson we are learning is that this is only manageable if we have very small projects for them to specifically look at and it is balanced against the schools priorities in terms of delivering the curriculum and getting the results, and also the student’s lives. So I think it’s been a real learning process because although everyone wants to have them involved as much as possible, we must be realistic about managing the process (Interview with Project Manager at second Pathfinder school December 13th 2006).

The case study school also took this approach with external areas and arranged for a small group of students to be linked to a Sorrell Young Designer Project and provided feedback to the assistant design architect. The Deputy Headteacher did feel that this would result in some changes:

I will be very surprised if this building now has those big umbrellas; genuinely surprised, the amount of ideas [the students identified], they might have one [umbrella], just for functionality but the amount of ideas that came through that [group], I think if Alan (assistant

architect) *comes back with three umbrellas when we put it to the students involved I think they would say, hang on a minute, that isn't what we agreed here* (Interview with the case study school's Deputy Headteacher 27th April 2007).

This view was reinforced by the project manager when asked if he believed the architect would make changes:

Yes I think he will actually, the group that may not would be the school. Because in the way we have developed the budget, it's no good giving the kids an opportunity to influence the designs and then say you've only got to work with concrete paving or very simple materials. That would be a waste of time, so we have actually put some money in there to enhance. I think Cedric (chief architect) will and can be persuaded. I think he will want to keep control of it though because it is his design and he will want it to sit in context (Interview with case study school's Project Manager 24th February 2007).

On the final day of signing off the designs (July 24th 2007) the external area umbrellas had been reduced, from three down to two, a small compromise. It would therefore appear that in these small areas, similar to the Sorrell project briefs, where the impact and cost is fairly minimal, and if it fits in with what the school management and the designer can agree to, the student voice may have an impact. This finding appeared to answer the question raised in the Literature Review; '*Are we prepared to listen to all students' voices or just those that resonate sympathetically with conventional adult views*' (Martin, Worrall and Dutton-Steinfeld, 2005)? As was also seen in the Literature Review, one of the major barriers to effective engagement of student voice according to Fielding and Rudduck (2002) is the fear of the outcome, which results in student voice being limited to relatively safe areas that do not have a significant impact on the adults within the school. It would appear from the case study and the second Pathfinder School that this was the case.

A further aspect that will affect the impact of the students is their own motivation. It was identified during the research that all of the students at the second Pathfinder school will have left before the new building is opened, and at the case study school Year 10 and 11 will have left:

I think the depth of the contribution to the project has been dependent on whether they occupy the building or not. Year 11, you could not hold a large group of Year 11's interest collectively because they won't be there but they are the more mature thinkers and know how the school works better than the Year 7's who will be there (Interview with the case study school's Education Advisor, 4th May 2007).

An extremely useful point on impact was made by the case study school Deputy Headteacher who claimed that the student presence has had an impact because it keeps everyone focussed on students and '*keeps them honest*':

I think what involving the students does in any planning process of anything, if all their presence does is keep people thinking about them then you've had a result because just their mere presence can stop people forgetting that actually they are the end user
(Interview with the case study school's Deputy Headteacher 27th April 2007).

The validity of this point was checked with two of the original members of the project team who had been interviewed. Both agreed that this was certainly a factor with which they could agree. This was also reminiscent of the findings in the Literature Review at the Zoo School or School for Environmental Studies in Minnesota, where the pupils relied on their tutors to act as advocates, they trusted in the power of their tutors to influence the design, to know and understand what was important to them, to go off and research solutions and to bring that back to the table, creating a better design that suited the needs and wants of those students.

Impact on the students

This section considers the impact involvement in the design process may have had on the student. The first aspect considers the evidence from the DQI workshop where the design group and students worked together to consider the design. The section

then moves on to explore the evidence of impact on the students gained from the interviews with members of the project teams and from the students and a Headteacher involved in the Sorrell projects conducted within the case study Authority.

The One School Pathfinder was offered by the DfES with a number of mandatory requirements, one of which was that: *'The project must use the Design Quality Indicator for Schools (DQI) (DfES, 2005b)*. The workshop was established, as prescribed, with a number of students (three were selected by the school, all high achievers), a parent, a governor, the SMT and the project team including the researcher and an external facilitator. Following the DQI exercise the forms were available for analysis and demonstrated evidence that the students changed their voting during the session of reaching a consensus. The original sheets produced by the students had on a number of occasions been altered during the debate (Table 4.20).

No	Statement	Student S	Student J	Student B	Consensus
F 9	The signage should be clear	Fundamental	Added Value	Added Value	Fundamental
F12	The building should be accessible to pupils, staff and visitors with SEN or disabilities	Originally scored Essential	Originally scored Essential	Originally scored Essential	Fundamental
BQ4	The building should respond to the site microclimate	Originally scored Essential	Originally scored Essential	Fundamental	Fundamental
E11	There should be a clear fire safety strategy	Originally scored Essential	Originally scored Added Value	Originally scored Essential	Fundamental
I 3	The quality of the school's outdoor environment should enhance the quality of the neighbourhood	Originally scored Added Value	Originally scored Added Value	Fundamental	Fundamental
I 4	The building should be well considered in relationship to local facilities	Fundamental	Originally scored Added Value	Originally scored Added Value	Fundamental
I 7	The indoor temperature in the building should be comfortable in all seasons	Originally scored Essential	Originally scored Essential	Fundamental	Fundamental
FM2	The building should be well composed	Originally scored Essential	Originally scored Essential	Originally scored Essential	Fundamental
FM3	Visitors should want to come here	Originally scored Added Value	Originally scored Added Value	Fundamental	Fundamental
FM9	The building's design and construction should contribute to development of new knowledge	Originally scored Essential	Originally scored Essential	Added Value	Added Value

Data collected 2006-7 © Wendy Mason
Fundamental-relating to factors which the building must achieve in order to fulfil its purpose
Added Value-relating to factors that will enhance the building's usefulness and pleasure value
Excellence factors that make the design sparkle as a whole and help create a building of distinction (CIC, 2006).

The students were not given the opportunity during the debate to discuss these changes amongst themselves, the fact that they submitted to pressure during the verbal session to reach the consensus score and amended the same items did appear to offer a useful insight into the items they originally thought to be important and how the process of reaching a consensus made them back down, changing their original weighting. This was explored with the school advisor during his interview:

A. Swayed by each other, they all had the same answers if you look.

Q. but they didn't have time to talk did they, so how did that happen?

A. I think they looked at each others' papers, like University challenge, quick whisper, that sort of thing. There was almost a perfect correlation between them. (The researcher was sat next to two of the students B and J and directly across the table from the third, S. She did not observe the behaviour suggested and therefore was not convinced on this argument but it does offer an alternative opinion).

Q. There was but they did change their vote a bit, when we came to the consensus, do you think that was peer pressure or they saw the argument better or what?

A. Two views, one they could have seen the argument better and two they saw which ways particular people (were arguing), they support the person more than the argument. That happens a lot in schools with teenage kids, they go for the person with the message rather than the message, and they trust the person so they go for the person with the message, an element of that

(Interview with case study school's Education Advisor 4th May 2007).

It was not possible to check this against findings in the second Pathfinder school because the consensus was reached at the meeting without recording individual scores, but it is important to be aware that in a mixed group, students may change or tone down their views to concur with the adults.

The second Pathfinder school were driven to student consultation by the mandatory requirements of the funding offer but also saw it as a way to create good learning

opportunities that would have a positive impact on students and help with maintaining standards:

We are looking at how the curriculum can join up with the project because as research by my colleague has shown that there is a significant drop in pupil achievement during the construction process and this is something we are particularly trying to eliminate. We are absolutely determined that that won't happen here. So we are looking at not only how we can inspire interest by involving the students in the project, but also use it as a vehicle for learning

(Interview with the Education Officer at the second Pathfinder school, December 12th 2006).

This opportunity for the building to be an excellent learning opportunity was also identified at the case study school but attempts to utilise this came into conflict with staff who felt under considerable pressure to deliver the curriculum and maintain standards:

Now I'm thinking they could be doing that based on a real building. They are putting the steel work in now lets see about structures. I've spoken to staff about it and sadly in my view they are saying, the teachers don't want to do this, because they are so much tied to their schemes of work and that's a real shame

(Interview with case study school's Education Advisor 4th May 2007).

The design brief specifically asked for the contractors to make a commitment to supporting learning opportunities but up to the end of term when the final design was signed off and the building work was in progress, no requests have been made by the school. An opportunity for the process to have an impact on the student has therefore been lost.

There was a suggestion in the Literature Review (Sorrell, 2005) that the impact on the students involved in the process is that they discover life skills, self belief and attributes through the interaction with professional designers and there would appear to be some justification. It was not possible to interview or survey the case study

students because the final design was only signed off on the last day of the summer term (a month prior to the thesis submission). However, students surveyed by the researcher, who had been involved in the five Sorrell projects in the case study Authority (Appendix B) suggested that the students do believe that they acquire life skills during the design process:

At the time I thought I wasn't clever enough or old enough to be in charge of the project. I know now that I am. Also I know the adults are interested in what we think (Shikirea).

I have become much more confident both in giving presentations to large groups of people and by voicing my opinion. The project has also given me a valuable insight into how architects work as I am thinking of it as a future career. It has also helped me see the process from a client's perspective (Hannah).

The benefits of this project for my personal well being have given me more courage, resilience but most of all happiness (Jacob).

The Sorrell students did think that involvement in a planning process had improved their skills such as team building and presentation skills and it had also helped them to gain an awareness of the building and design process which several of them planned to convert into a career. The level of engagement they enjoyed with the designers was however far more intensive as they progressed through the iterative stages of the design development than anything that was achieved on the majority of the case study project.

One aspect where the case study school was able to embrace the iterative process of working with a small group of students to develop a client brief was with the external areas. In this particular aspect the process, not only had an impact on the design as previously discussed above but was also reported to have had an impact on the behaviour of one student:

I'll tell you about this little case study now, guy in Y10, rude recalcitrant, no support at home, me and him personally he would quite happily have shot me with a gun, you know. Cos all I was doing with him, he was being sent to me by staff, we'd done the quiet talk, we'd done the medium talk and now we were up to the getting expelled. He happens to be a good design kid so [in the Sorrell design group] we had seven students; five or six really well behaved kids, I all right one and then Michael who was moving towards being excluded. His involvement in that group has given him something to talk about that's positive, he's engaged with the school and now he's changed, like that, and his relationship with me has gone about face because now I can talk to him about Sorrell, it gave me the one thing I needed to get in. That's nothing to do with design or building but it's about engagement and having some pride in what they do (Interview with the case study school's Deputy Headteacher 27th April 2007).

The impact on students is finally underlined by a dramatic personal example, quoted here in full from an e-mail sent to the researcher from the Headteacher of one of the schools involved in the Sorrell projects:

Dear Wendy

I thought I would let you know the impact of the Sorrell Foundation Project "Joined up Design for Schools" on one of our students in the original cohort. For confidentiality, I will call the student 'John'.

John joined us from primary school with KS2 test results of English 3 (just); Maths 4 and Science 4.

By the end of KS3 his levels had not advanced although the raw point score had increased, and he was at risk of becoming disaffected. He joined the Sorrell team in Y9. This involved trips to London which he really enjoyed. After one trip he came to tell me that "Peckham Library is cool", which is quite something given his difficulty with literacy.

During Y10 John presented at a DfES conference in the VA museum conference room along with a fellow student (a Level 8 girl). They spoke between Estelle Morris and David Hopkins, and made quite an impact on the audience. John spoke with humour and realism to the conference, and it was from that point that our dream began to turn

into reality as it provoked interest in the DfES who eventually match funded the project. The teacher who accompanied the students took John to the shops and bought him a shirt, tie, trousers and shoes for the occasion, and John remained proud of these (rightly so as he looked really smart).

John continued in school through to the end of Y11 and secured GCSE passes in English Language (D); DT Product Design (E), English Literature (E), Art (E), History (E), ICT (E), Maths (F), Science (F) and Geography (G).

I remain convinced that if John had not had the involvement in the Sorrell project which gave him an interest in school and focus, he was at risk of dropping out of school and not completing his education.

Chapter Five: Summary, Discussion, Conclusions, Future Directions and Recommendations

Introduction

The research was based on a case study which explored the research question Building Schools for the Future: is the design process, or the completed design, improved by involving student voice; does student involvement bring anything different or innovative to the design; what impact does the student voice have on the completed design compared with that of other stakeholders involved; and what impact does involvement in the design process have on the students? This chapter begins with the summary of the research findings. The findings are then explored further and discussed in relation to the three aspects of the research question, the implications of the research findings on the existing interpretations of student voice are also considered throughout this section before conclusions are reached, future directions are explored and specific practical recommendations are made. Finally an epilogue is included presenting the outcome of the peer review.

Summary of the research findings

The research began by exploring the student, staff and parent voice at the case study school to see if the involvement of student voice brought anything different or innovative to the design. The consistency of the student voice was then explored by comparing the case study findings with the two comparator schools, the PRU, the second Pathfinder school and from findings identified at conferences and through a comprehensive review of literature such as trade and educational journals, web pages and the internet.

There was considerable consistency between the issues raised by student voice at the case study school and those raised by staff and parental voice (Tables 4.1 to 4.17). The level of consistency between the issues raised by student voice at the case study school, the comparator schools and PRU (Table 4.18), the second Pathfinder and literature review, was also very high. The areas where student voice had things to say that were not echoed by staff and parents, were the issues of having music playing around the school, comfortable furniture and the need for somewhere to sit externally with shelter from the weather and seagulls. In comparison with staff and parents, although the consistency was high the student voice was louder on some issues, for example the need for common rooms and social spaces, nice and comfortable dining facilities available from breakfast and throughout the day, somewhere to display their work giving them a sense of pride, safety for themselves and their belongings with freedom from bullying, the need for better toilets and individual lockers, and the need for on site access to vocational training, work experience, health facilities and guidance; all aspects which were raised more frequently by student voice than the voices of staff and parents.

The findings relating to safety for themselves and their belongings echo the conclusions of Burke and Grosvenor (2003) who suggested that students demonstrate a sense of vulnerability:

Children feel small; the school environment is hard, especially when you fall; space is limited; toilets are unwelcoming or inaccessible; sick bays are inadequate; buildings are noisy; corridors are hectic; the school bus is a daily ordeal; bullies threaten; teachers shout and seem not to listen; belongings can be lost or stolen; bags are heavy; lockers are damaged; minority students feel victimised and marginalised. (Burke and Grosvenor, 2003, p. 109).

The need identified in the research for facilities to support vocational training, work experience, health facilities and guidance would also suggest a sense of vulnerability that the students may have about their future.

The students in the case study school were very concerned with sports facilities (the case study school is a Sports Specialist School and this could therefore be expected, especially in view of the fact that this was one of the themes they were asked to consider). This need for sport facilities and the consistency of this, including more adventurous versions such as climbing walls and skate parks along with the ubiquitous swimming pool are also reflected in the student comments in the literature (Table 2.1).

There was also an element of 'fun' running through the issues raised by the student voice at the case study school: requesting a pet; Jamie Oliver and the ice cream van; whacky themes, and a fit nurse and doctor, which would appear to be more about their appearance than their level of fitness. This aspect of 'fun' was replicated in the presentation produced by School Works where the students demanded '*A building that is fun!*' and even suggested that '*some parts of the building might move or surprise you*' (Walter Hall, 2006, p. 9). It was also supported by the comments at the PRU where the students said they wanted the corridors to have music playing and bubbles coming from the ceiling. The sense of 'fun' was also evident in the demand for rooms shaped like '*buns*' (Burke and Grosvenor, 2003, p 40), and rooms shaped like '*violins*' (Blishen, 1969, p. 49).

The student voice also demonstrated that they wanted to be able to have a sense of pride in their school. This was demonstrated by their requests for '*a friendly welcome*' and '*a nice front to the school*' (Table 4.18); the need the students identified for somewhere to re-locate the roll of honour and to fly the flag at the comparator Pathfinder school (Appendix D); the sense of pride in the photo wall at the Bexley Academy (Figure 4.2 and Appendix A) and the need students voiced for display areas so that they could take a pride in their work (page 70).

This need the students have voiced for the school to be a safe place, somewhere that is fun and somewhere that evokes a sense of pride demonstrates the issue identified in the Literature Review; the point made by Bernstein that we should not fall into the trap of confusing voice and '*its realisation, that is, the message*' (Bernstein, 1990, p. 165).

The research continued by exploring the impact the student voice had on the completed design or the design process. Although the students had input into the original design brief and several opportunities were taken to show the students the design at different stages (Table 3. 1) giving them the chance to offer feedback, the interviews revealed that the design group did not believe the student voice had any significant impact on the overall design. The interviews indicated that this lack of impact was partly due to the earlier findings, in that the items identified by the students were not unique or innovative and were already known and appreciated by designers and architects working in school design. It was also partly due to the competing demands of other voices, e.g. the swimming pool debate, where the students were vociferous but the school and local council were deaf to their demands. It was not only the student voice that was shouted down in this way. This was also reflected in the findings elsewhere where the design was changed because of how powerful some voices were in comparison with others, for example the architects' concept of base rooms at the Djanogly Academy being overturned because of staff pressure and at the second Pathfinder school by the Headteacher.

Student feedback on the developed design from the DQI group did raise issues that were later changed on the design but the student voice was not the cause of these changes. The student voice was in fact ignored until other powerful reasons and voices made it necessary to change the design (contractual reasons and the ecological bat survey). The cost of involving student voice in the design process, the motivation of students to be involved and the need to balance the time pressures of involvement with curriculum needs were also raised as issues that could become a barrier to effective engagement and reduce the volume of student voice. Student feedback on smaller aspects of the projects, such as the external areas at both Pathfinder schools, did appear to result in the students having an impact. These were however relatively safe areas that did not significantly impact on the adults within the schools and, as the Literature Review revealed, this therefore could have perhaps been anticipated. (Fielding and Rudduck, 2002).

The way students were seen to have an impact on the design process, and indeed the design itself, was the fact that by working with the students throughout the process the design group were thought to be more focussed on the needs of the student; the

suggestion, endorsed by others, was that: *'it kept them honest'* (Interview with the case study school's Deputy Headteacher, 27th April 2007). There was also evidence in the Literature Review and in the research that students could have an impact vicariously through others, as shown at the Zoo School or the School of Environmental Studies, (2005) where the students' favourite tutors acted as advocates, and at the third Pathfinder school where the Headteacher took that role.

The research also explored the impact involvement in the design process had on the students. The Literature Review identified the claim that students can develop citizenship skills through their involvement (Rudduck, 2003). The students did appear to have the opportunity to learn citizenship from the design process e.g. the swimming pool debate but the case study did not provide any evidence to demonstrate that this was achieved. The evidence from the Sorrell projects survey would appear to support the view that the students did believe that they developed life skills (Appendix B). This may however, depend upon the level of engagement and it was not possible to confirm these findings within the case study. There is also evidence to suggest that behaviour, in one student at the case study school, was improved and that a second student in a Sorrell project benefited from the motivation aspects of his involvement; achieved a sense of pride and self confidence and made grade improvements as a result of his involvement in the design process. However, both of these examples came from areas where students were working in a more detailed and iterative stage of a design process and claims could not therefore be justified at the level of engagement utilised generally in the case study.

There research demonstrated that there is a need to understand and recognise the difference between consultation and collaboration. There would appear to be a generally accepted belief that students should be encouraged to contribute to the consultation process but there would appear to be a reluctance to involve them in the much more intense stage, the iterative or collaborative process that develops and finalises the design:

Consultation as a process implies that you've asked people for their ideas, and I've seen plenty of examples in the public sector. Authorities and architects can be seen to have asked clients and user

groups what they want and feed it into the design process. But this is not the same as 'collaboration' where the client groups are actually empowered, part of the design team having a real input (McCloud, 2007, p. 19).

The ability of the students to bring anything different and innovative to the design, the impact they are able to make on the design and the impact that the involvement in the design process has on the student, all dependent upon the level of involvement the students are given access to. The research demonstrated that it is quite possible to achieve a level of consultation but taking this further to the iterative and collaborative stage, where students are empowered and have real input is far more difficult to achieve within the BSF process, except on small insignificant areas. This issue is considered in more detail in the discussion of the findings below.

Discussion

In this section the findings are considered and explored in more detail in relation to the three aspects of the research question. The implications of the research findings on the existing interpretations of student voice are also considered.

Is the design process or completed design improved by involving student voice, does student involvement bring anything different or innovative to the design?

The research began with the hypothesis that the design process could be improved by involving student voice. By gaining a good understanding and a serious appreciation of young people, their lives, interests and needs in today's society and by incorporating these into the design, an improved learning environment or school design would be created that would be an inspirational place for students. Lackney (2001) suggested that to gain inspiration in the planning process we need to take account of the 'small voice' and fully involve young people. He argued that their involvement would bring fresh multiple perspectives to the process and quoted the Zen master Susuki, in *'the beginner's mind there are many possibilities, but in the expert's there are few'* (Lackney, 2001, p. 5). It has also been suggested that students could possibly have a key role to play in creating better learning environments (Flutter and Rudduck, 2006). There is therefore a suggestion that the involvement of student voice could possibly bring innovation to the design. For this to happen the

students would have to bring suggestions or ideas to the design that reflected a unique perspective.

The research demonstrated that the student voice did not bring anything different or innovative to the design at either the case study or comparator schools. This was partly because the things they raised did not present anything fundamentally different to those raised by staff and parents, or raise needs and wants that were not already recognised by the design team. It was also in part due to the level of engagement, which would only fall into the level of *'benign but condescending'* (Fielding and McGregor, 2005, p. 4) or tokenism on Hart's ladder, where: *children seem to have a voice but have little or no choice in their subject or style of communication and no time to formulate their own opinions'* (Hart, quoted in Fielding and Rudduck (2002, p. 5). The themes the students considered in their focus groups at the design workshop were formulated by the SMT which may have constrained the student voice and reduced their innovation. Fielding suggests:

If one imposes a frame that is inquisitorial or exploitative or if students are required to speak the public language of the school, then the possibility of gaining access to what is distinctive about certain kinds of student perspectives is immediately compromised (Fielding, 2001, p 102).

The comparator schools and the PRU however, had less of a framework as they were simply asked to imagine and then describe their ideas about a perfect school. The findings were still consistent and support the view that students come with a list of common issues (Sorrell, 2005), but again their contributions were not particularly innovative. It could however, be argued that the framework the students were participating within was their current understanding of a school:

Asking young people what kind of school they would like presumes the continued existence of schools as viable and desirable social and educational institutions

(Leadbeater, 2004, cited in Fielding and McGregor, 2005, p. 16).

There is evidence from the Sorrell projects (2005), that the inspirational and creative thoughts and innovation can be coaxed from students through a process described as *'the conversation'* (Sorrell, 2005, p. 20). This process on the Sorrell projects took many months and was conducted on much smaller projects. The Headteachers could also take comfort from the fact that if they did not like or agree with the finished design then it would stay as an exciting design project that would go no further, as a result the students were given complete freedom in developing the designs. But is it possible to emulate this creative journey on a BSF project? How can we create the right environment, ethos and culture to engage with student voice at a much deeper level within the BSF process and could that possibly develop the creative thoughts and innovation anticipated by Lackney (2001)? What sort of forum or techniques will work when it comes to originating and testing new ideas; what sort of support or expertise is required? Is it possible to move from a consultation process with student voice to one of collaboration that changes the process from being *'benign and condescending'* and creates a situation that is *'supportive and groundbreaking'* (Fielding and McGregor, 2005, p. 4)?

We also need to be clear about what we are asking of students, clearly it is unrealistic to expect them to be able to design a new school and also clearly it is not about believing that *'everything they say is relevant'* (Arnot and Reay, 2007 in press, p. 14), otherwise we would be building smoking rooms and rooms with very strange shapes. However, as users with a different perspective to other members of the traditional design group, they still have a very valid contribution that should be captured, explored and cultivated in a more significant manner than the consultation demonstrated in the case study and in the majority of the other examples described within the literature. As the Literature Review identified the designer at Kingsdale School clearly believed that:

Participation is not about asking participants to design buildings; it's about releasing the user knowledge and creative potential (Learning Bites, 2004, p. 2).

The research has demonstrated that consultation can release the user knowledge but the lack of innovation would suggest that it did not produce the anticipated creative

potential. Sorrell (2005) has demonstrated that it is possible to change processes, releasing user knowledge and creative potential by creating student client teams, identifying an area within their school that the students passionately want to change, taking them on visits to broaden their ideas on design possibilities, giving them a broader vocabulary and encouraging their confidence and innovative capacity. It is also a process that creates something tangible for the students to critique, something on which they can offer feedback and make amendments. They can visualise the space and why they want to change it, they can see the draft design, on plans, architectural drawings and even computer generated fly through simulations, and imagine how the solution offered could look. They are able to assess how the draft designs reflect their input and meet with their expectations. They are also given the chance to make amendments until they are satisfied with the result. Participation through the Sorrell process is in line with the suggestions of Fletcher (2004). It is about the need to share the power between the students and in this case the designer, and is also about limiting the power of other stakeholders by insisting that the group of students are the clients; not the Headteacher, nor the staff or the LA, and that in all aspects of the design process it is the student voice that has the final say on the design, although as discussed earlier, the Headteacher still retains and has the final say on the design progressing through to completion.

This partnership and iterative process was used to design a Primary School but the described process (Sorrell, 2005) still accepted the conventional view that a Primary School needed a set number of classrooms. At the school in New Zealand described by Heppell (2004) in the Literature Review, the students started with a space; the top floor of a department store in a shopping mall. Their assumption when designing their new school was that there was no school, a bit like thinking out of the box becoming, there is no box!

Would we be more likely to find creative thought and innovation if we look for a way to develop more creative processes and should this be within the BSF programme or because of the tight time scales should it be conducted as a separate exercise to inform future thinking on the BSF programme in the same way that the current exemplar designs are used to inform BSF designs? What would happen if we found a way to unlock the user knowledge and creative potential of students (or for

that matter, other stakeholder groups as well but clearly the focus for this thesis is students) without imposing any constraints and frameworks? Especially if the process was supported by designers who are equally unconstrained by the need to meet funding limits, space guidelines, time restraints, concerns about the number of classrooms, the ownership of learning spaces or concerns for professional accountability and risk. Just imagine what could be produced by a group of students who are chosen because of their desire to be involved in design, facilitated by a creative designer, taken on a tour of Academies, newly completed schools and other buildings recognised as exciting designs, and then given the permission, encouragement, time and space to develop some truly inspiring environments. Would the results be transformational? Further research to explore this potential is recommended.

What impact does the student voice have on the completed design compared with other stakeholders?

It has been suggested that student voice may have an impact on completed designs, in that they may help to overcome the '*invisible architecture*' of experts who are resistant to radical change (Graba, 2001, p. 2). To have an impact students will need to be able to make their voices heard over and above the '*cacophony of competing voices*' (Reay and Arnot cited in Fielding, 2002, p. 4). Exploring what constitutes this cacophony in more detail may help us to understand the level of impact the students may have compared with other stakeholders.

The determination of the Headteachers to be innovative, take risks or alternatively to preserve the status quo; how much they are prepared to consult with students and staff and take on board what is said but still manage the expectations; how adventurous they are as they create a vision of change, manage the ethos and culture of the school and drive through the necessary changes, would appear to be one of the major impacts on the potential for innovation in the completed design. The experience at the case study school, where the Headteacher consulted widely but was reluctant to take risks with the building design, was similar to that reported by colleagues at the SW Meeting held on 22nd January 2007, where frustration at being driven away from inspirational thinking because of concerns about standards was very evident:

I think that's a really strong point because when we first got told we were a one school Pathfinder with £20M, I thought bloody hell, we've never had that much before, irrespective of the fact that it turned out not to be enough. My immediate reaction was now we can really do something transformational, really get a grip with all those exciting ideas; when you talk to Steve Heppell, and we thought this is it. Do you know what; we have not managed to achieve diddly FA (sic). What we are going to finish up with is a fantastic building, with some interesting pieces in it, yes there will be some transformational aspects but when you talk to the school they want the security of classrooms and as a consequence we are building 54 sq meters and asking how the hell do you get that transformation. I'll be really interested to hear how PFS or anybody else can achieve that when the schools are saying, we've still got Ofsted coming we've still got standards to achieve and unless they are prepared to recognise transformation we are not interested

(Head of Capital Funding from a neighbouring LA talking at the SW Meeting held on 22nd January 2007).

These experiences were in stark contrast to the drive and enthusiasm for transformational learning environments demonstrated by the Headteacher at a third BSF Pathfinder School:

I talked about mindsets and a transformational building. Now for me what I have been talking to staff about is spaces, not classrooms and that's a very difficult conversation. If we genuinely are on board with this it's about creation of spaces, not about territory. It's about these spaces which are school spaces, student spaces. We are genuinely trying to create flexible spaces, one way is partition walls but it's also about the break out spaces. We have looked at what, I'm afraid as a non technical person I call apples, these green things that students go into and probably never come out again. I don't know if you have kids yourself but my own two sons spend most of their time there, on the floor and I say what are you doing? They say 'I'm

doing my sociology', tap, tap, tap. He learns by lying on the floor and typing into his computer. My other son lounges on the settee; those sorts of environments welcome students, we need that as well as perhaps the stricture of the lecture theatre, as well as a classroom, as well as a seat. All of those things (I'm going to bore you now), all of those things we need in a school of the future and we are thinking about getting into our school. It's not about replicating the past, replacing what we have got. It's about breaking out of that stricture, getting out of that mind set and embodying it in this building. I feel very passionate about this, can you tell? (Transcript of talk given by Headteacher of a BSF Pathfinder School at the SW Meeting, 27th April 2007).

The Headteacher was prepared to be bold, and although he involved staff and students in the consultation process it was very clear that he would not be diverted from his vision of transformational learning spaces. As a result, the Pathfinder design has not had the flexibility aspects negated during the iterative stages of the design development. As the design was completed, classrooms still had flexible walls that open up to create large lecture areas, large 'apple pods' for IT are scattered around the school presenting flexible learning opportunities as well as the more usual open spaces for 'chill out'.

Graba (2001) discusses the way ethos and culture becomes an organisations' invisible architecture making change almost impossible to happen. He suggests that:

The traditional schools served us well. Most of us would prefer that the existing schools just got better. We would resist changing what we knew and liked. So the country ends up spending billions and we still have the schools we knew (Graba, 2001, p. 2).

The DCSF recognise this resistance to change:

Designing a new school experience will involve pupils, parents, the school workforce, local and national government in altering some

deeply embedded, and often unquestioned, habits and practices
(2020 Vision, 2006, p. 29).

The DCSF are trying to overcome the invisible architecture and deeply embedded habits and practises by promoting transformational designs to support personalised learning; they see BSF as a catalyst for this progression (2020 Vision, 2006) and are able to exert their power even though they are not present around the table during the iterative stage of the design. They ensure that all schemes are advised, influenced and informed by: encouraging the use of the exemplar designs; they hold conferences to inform the design process and invite compelling speakers and designers to ‘inspire’ that process; they appoint CABE enablers as watchdogs over the designs as they develop; they also publish guidance, books and web pages. More importantly they retain the ability to exert a major impact through the gate-keeping process of signing off the finished design for funding approval, in other words they retain the right to say no. The flexible designs with flexible spaces and flexible walls that can be re-formed (over a break time) to create large open spaces for short lectures, practical sessions and team teaching, are all promoted to encourage personalised learning and innovation as a way of improving standards, student motivation and behaviour. Heppell’s very powerful rallying cry of:

*When we build the right learning environments, pupils go so far and
so fast that we realise we’ve built prisons for generations of coasting
kids. We now need to build extraordinary schools*

(Heppell, Personal transcript notes, 28th October 2004).

These presentations are very inspiring, very easy to get excited about, quite easy to inspire the various stakeholders to embrace at a surface level, but when it comes down to the need to finalise the plans with departmental staff; when staff start to ask, ‘which is my room’; when they ask other staff their experience of flexible walls; when they ask around for any evidence of how this flexibility will positively increase their 5 A* - C’s and can not find any evidence, they gradually return to the safe and traditional. They are unconvinced by the rhetoric because they have no tangible evidence to demonstrate that change would bring any improvements. They are

therefore very resistant to change which in turn has an impact on the design. This was confirmed by the school advisor:

Q. Do you think that the flexibility that we had at the beginning, with teachers getting quite excited about a different way, flexible walls, space for lectures, etc, but when it came to finalising the design they went back to the traditional, is that part of that same fear?

A. Yes, they are driven by exam results, and Ofsted are linked to exam results and so they know that if they are successful in the system they will be successful in exams. The system of exams is not going to change; why change the proven method of getting to those exams? (Interview with the case study school's Education Advisor 4th May 2007).

Involvement in the detail of the design process and resistance to change appears to have been the major difference between the Djanogly Academy and the Bexley Academy design. With the Bexley Academy design, the designers are reported to have worked through the iterative stage of the design almost entirely with the Headteacher and the result was the very bold and open design (intended to contribute to the improvement in behaviour) that has since proven to be so contentious. The Djanogly Academy design began life through the same firm of architects with a very similar design concept. However staff at the Djanogly Academy had the advantage of being involved; they were able to visit the Bexley Academy and then 'cherry pick' the bits they did like and the things they were not so keen on, such as the open courts used for teaching and the concept of students remaining in classroom bases and tutors circulating. This involvement of 'staff voice' during the iterative stage had a major impact on the initial concept design for the Djanogly Academy as it progressed through to the completed design. The staff were not prepared to sign up to the bolder design concepts; they viewed them as being too much of a risk and reverted to the more traditional, having been given the 'voice' and empowered to do so.

The LA's ability to act as an enabler and engage stakeholder voice especially that of student voice in the design process depends very much on the level of resources available. The research demonstrated that the resource implications of involving the students, capturing their input, and then analysing it are a major commitment. The

design day at the case study school was a whole day of students' input; this took one person a week to type up and the researcher several weeks of analysis. This was only achieved because the researcher's time was free to the LA. It could not be replicated across a BSF wave, typically six schools, within a short time scale. A situation that Wright, the co-editor of 21st Century Schools would agree with:

Timescales are incredibly compressed. Batches, typically of 3 to 6 schools, are being designed in no more than 3 to 4 months. Can this really be enough time to engage all the stakeholders and come up with designs that are fit or purpose (21stCS, April 2006, p. 1).

Resources were also an issue raised by the comparator BSF Pathfinder School:

This is exactly the problem, we are recognising within our business case that to do real community, school engagement it's going to add 1% to the build cost, just in terms of re-sourcing it (Interview with the Education Officer at the second Pathfinder school, 12th December 2006).

Another factor affecting impact on the design for the LA would be the type of contract. The Pathfinder was not PFI but future waves are likely to be so. Many contractors speaking at the various conferences have said that they want to involve students and staff but have been prevented from doing so partly because it would be impracticable for the schools to be fully consulted by all of the firms bidding (up to six in some cases) and partly because this would increase the cost considerably. Up to £2 million per contractor has been quoted as the cost of each company submitting a bid (Murray, M. @ Schools for the Future: Partnerships to deliver improvements in infrastructure, 30th June 2005); an expenditure that becomes a loss for the unsuccessful companies. This would appear to be an enormous waste, if six companies are bidding this would equate to a combined loss of £10M, almost half the amount needed to complete the Pathfinder. Although this loss is usually minimised by reducing the bidders to a couple during the more intensive and expensive negotiation process it still amounts to a considerable sum. Apart from the obvious waste this financial barrier was confirmed as a threat to future company bids by the Operations Director of a major company bidding for contracts:

Large sums of money are at risk and businesses remain nervous about the high cost extended...consortia have shouldered this risk in return for the potential benefit of early wins in the BSF market...Companies cannot sustain too many failed bids whilst at the same time local authorities will not wish to see a reduction in the number of players bidding BSF contracts (BSJ, issue 2, p. 36).

A reduction in the number of players bidding would result in poor market conditions and higher prices could result. It is therefore in the interest of everyone to address this issue as a matter of urgency, either by changing the procurement process, which is unlikely, or for example by taking the early design stage out of the PFI process, allowing for the tenders to be invited against designs that are already produced to RIBA stage C.

Finally as we consider the impact of student voice on the completed school design compared with other stakeholders, we must consider the voice with the potential to be the loudest; the architect. The research demonstrated that several factors moderate the voice of the architect. The risk aversion raised during the interview with the case study design architect was an interesting aspect that could result in a less inspirational design.

Another major issue is risk, the worst thing that can happen to a practice is to be sued for a failure in the building design, and it is therefore difficult for an established designer to be pushed out of their comfort zone. An established practice has to think about its reputation and take responsibility for the staff who works for them with mortgages etc. A young designer, with nothing to lose, trying to make a name for themselves would find it easier to take more risk

(Interview with C Winter, design architect at the case study school, 19th March 2007).

Yet another issue would be if they have an aversion to flexibility. During the interview Cedric explained that on several occasions he thought he had worked against the LA as they were pushing the flexibility agenda. Partly because flexibility often costs more, partly because it is more complicated (you have to work out how

the building will work in mode A, B and C) and also because often it is a compromise on Building Bulletins (a flexible wall can not comply with the acoustics) or adaptability (the under floor heating is a problem when it comes to load bearing and for example, moving the bleacher seating from the Hall to the Sports Hall). In addition Cedric quoted several examples within his personal experience of designs where flexible walls had been put into a scheme and then on a visit a year later, had never been used.

There is another interesting conflict of interest which became apparent during the research, the tendency of some architects to strive to design iconic buildings with a view towards building design awards and the recognition of other architects, for example the Bexley Academy (Figure 4.3 and 4.4) and the Esplanade House (Figure 1.2). The conflict arises when the architect's voice is saying '*iconic*' and the stakeholder voice is demanding buildings that '*should fit into the landscape and be aesthetically pleasing*' (Table 4.9).

As the case study design developed several consultation workshops with students were held, but these were time constrained by the school which reduced the dialogue possible and therefore the amount of impact the students could have. Student voice was excluded from the more detailed iterative stage of the design development except on the much smaller, low cost, low impact areas such as the external play, memorial garden or habitat issues where they worked directly with the designers in a similar relationship to the Sorrell projects. In these areas, as with the Sorrell projects (Sorrell, 2005), there was some evidence that the students could achieve some impact. This finding was a reminder of the major cultural barrier to effective engagement of student voice identified by Fielding and Rudduck (2002); the fear of the outcome, which they claimed resulted, in student voice being limited to relatively safe areas that do not have a significant impact on the adults within the school.

It would appear from the research that once the design brief has been developed into the initial design, the iterative and collaborative stage of the design development (the stage where the detail of the design is shaped) is where many of the major changes are made. It is also where the level of innovation and risk is moderated, or not. Who

has access, a voice and therefore influence at this stage and the ethos, culture, individual agenda and balance of power between the various stakeholders during this process, would appear to be fundamental to the decisions made and the level of innovation in the final design. The Pathfinder project team were engaged on this iterative and collaborative stage of the design development for a minimum of one full day per week for nine months. The research identified that because of the time scale, the work pressure, the additional cost and the confrontation that can occur during this process, together with the perceived risk of getting such a major investment wrong, there is a reluctance to involve student voice at this level on the whole school design. The impact that the student voice has on the completed design compared with other stakeholders, who are given access to this iterative and collaborative stage of the design process, is therefore minimised.

The importance of involvement, or the consequences of lack of involvement, at this iterative and collaborative stage of the design development is recognised in the novel, *Fountainhead* (Rand, 1943 re-issued 2007), where Toohey uses the commissioning of a vague design brief, the absence of the client and their non-involvement in the iterative design process, to allow Roark the architect, to be very bold and innovative with his design. He then persuaded the client that the completed building was not fit for purpose, thus bringing about the deliberate destruction of Roark's career, reputation and building.

During the case study scheme development it was at this iterative and collaborative stage that staff voiced concerns about flexible features such as flexible walls (because of concerns on acoustics) and flexible science facilities (because of concerns about not 'owning' their own lab). As a result many of the more flexible features were removed from the scheme and the design was driven back towards being more traditional.

Although the research demonstrated that student voice had little impact on the completed design, examples were identified that demonstrated that students were able to influence their power indirectly. The Literature Review identified an example of students appointing proxies to develop their school design (Zoo School or the

School for Environmental Studies, 2005). The trust invested in their favourite teachers resulted in a design that addressed many of the features identified by students in the research. The wider literature review also identified a school design where the designers were '*inspired*' by students (B4E, 2006, p. 7). This was similar to the research findings, where the design team at the case study school agreed with the Deputy Headteacher's comment that working with the students throughout the project had an impact on the design because it kept the team honest and focussed on the students' demands and needs.

Another example of where the design was inspired indirectly was the third BSF Pathfinder project where the Headteacher appeared to be acting as an advocate for student voice or even an interpreter of student voice by saying that his vision for a transformational building was in fact inspired by his knowledge of how his sons learn best.

Should we be looking at a way to recreate these opportunities, rather than trying to change the culture and ethos within the schools, is there a way of changing the process and introduce a students advocate onto the design team? Someone who could meet with the students and be trusted by them to represent their views and interests, report back to them on a regular basis as the design develops and act as their champion throughout? If this is to be effective the advocate would need to have an equal status on the design team and be empowered to negotiate on behalf of the student voice. This is not to say that everything would be accepted by the design team (in the same way as not everything proposed by any other member of the design team is accepted) but at least this would give the students voice a chance of being heard and considered and also creates a way of explaining back to the students why something they have suggested has been rejected and in this way helping with their understanding of citizenship.

Even after the design is completed and even if innovation survives into the completed building, the issue of how the school is managed after it is built, its ethos and culture, will have a major impact on the way the students will be allowed to enjoy their new school. Will students be evicted at break times, will cyber cafes be restricted to 'good' children, will lunch still be one sitting and therefore the same long queuing

system and hurried crush, will corridors still heave at lesson change over time which continues to be consistent and ruled by bells with all the associated poor behaviour and potential for bullying, will open viewing panels to provide transparency be covered with posters? These are the sort of issues that should be reviewed with students at post occupancy reviews, School Council meetings and during Ofsted inspections. Failure to address these issues will reduce the impact of the transformational change envisioned, and fail in the attempts to create the inspirational learning environments promised by the BSF programme.

The history of education tells a story of institutional change on the surface, but fundamentally the classroom, its routines, the regimentation of life, the lived experience of school does not change, a fact recognised periodically throughout time by commentators and, sadly, by some children who wrote about the future but expected adults to fail them again (Burke and Grosvenor, 2003, p. 152).

However the problem still remains, even if we were able to find a way to take student voice through a journey of creativity and develop designs that would facilitate and encourage pedagogical changes, transformational and personalised learning, how do we overcome the resistance to change by schools that was so clearly evidenced by the research (page 108)?

It would appear there is an urgent need to find ways to demonstrate the benefits of student voice and encourage school leaders to embrace the philosophy of BSF, transformational and personalised learning, flexible and adaptable spaces. Unless this is achieved, no attempts to introduce creativity will be accepted and the design process will continue to remain a ‘tug of war’.

What impact does the involvement in the design process have on the student?

To explore the possibility that there was an impact on the students from the process of being involved in the design process, the forms produced by three students individually at the initial stage of the Design Quality Indicator (DQI) workshop were examined and compared to the consensus score that was later produced when they were working with the adults in the full DQI group. This aspect of the research

suggested that students may change or tone down their views to concur with the adults. The research therefore demonstrates that even if it was possible for student voice to be included on the design team during the iterative and collaborative stage of the design process there is a possibility that in a mixed group, the student voice may not be very effective.

The research was inconclusive on the impact of involvement in the design process on the student. The research did find some evidence of skill development and improving behaviour (one example) and motivation (one example) but these were examples of where students had been involved in a more detailed, iterative and collaborative stage of the design development.

Conclusions

This research demonstrates that the students did not reflect a unique perspective; their voice was consistent. The items identified were very much in line with what parents and staff have voiced. This was confirmed by the interviews and by the comparison with the two smaller comparator projects and even with the student voice that is not usually included; the student voice from the PRU. The view that student voice is consistent is further reinforced by the Literature Review comparison (Table 2.1) and at Bishops Park College, a PFI development in Essex that engaged student voice only to find that, as with the case study school, their comments '*were similar to those captured in The School I'd Like (Burke and Grosvenor 2003)*' (Beard, 21CS, issue 2, p. 31). To be able to re-create and develop the innovation which began in the Sorrell projects (2005) and anticipated by Lackney (2001) there needs to be a move away from the present level of involvement, which constitutes consultation, to something that is more akin to collaboration and that gives the students far more time and support to explore and develop creative learning environments that surpass the expectations of the current exemplars.

It would appear from the research that the level of direct impact that the student voice was able to achieve was fairly minimal. Not only were the students unable to overcome the invisible architecture of experts who are resistant to radical change (Graber, 2001), other members of the design team also found this difficult as the design was pushed back to the more traditional during the process of finalisation.

The problem will still remain, even if a process can be developed to work collaboratively with student voice, even if creative designs are produced, the possibility of those design aspects being incorporated into the BSF designs will be minimal, unless staff and school leaders can be convinced of the benefits.

As discussed earlier, there is a difference between consultation and collaboration. Creating opportunities for consultation for students within the BSF process is possible, as the research was able to demonstrate, however the barriers to involving them in the iterative and collaborative process were very difficult to overcome. The interviews demonstrated that the time involved in running and analysing the input, the cost, and the perceived motivation of the students, the reluctance to take the students away from their curriculum studies and even the reluctance to place them in a situation of conflict, were all raised as issues that prevented their involvement and therefore reduced the impact they were able to achieve. The research did not demonstrate any tangible proof that this reluctance was in fact fuelled by the fear of the outcome, which results in student voice being limited to relatively safe areas that do not have a significant impact on the adults within the school (Fielding and Rudduck, 2002), but clearly the external play and habitat areas that the students were given more input to, did reflect their findings that relatively safe areas may well be identified for the students to make a contribution towards rather than those that staff would feel strongly about, such as classrooms. There was evidence from the way the student voice was ignored on the swimming pool and skate park issues that the school was not: *'prepared to listen to all students' voices (only) those that resonate sympathetically with conventional adult views'* (Martin, Worrall and Dutson-Steinfeld, 2005).

Changing the level of student voice from one where they are engaged in the consultation process, to one that enables them to be involved in a much richer collaborative process where power is genuinely shared (Fletcher, 2004) would appear to be very difficult. The barriers to enabling this to happen within the present system, e.g. time, impact on curriculum and cost, which were identified and voiced during the research, may also be reinforced by the unvoiced concern; fear of the outcome (Fielding and Rudduck, 2002). It may be that the only way to achieve this is to move on from the current practice (asking students what they like and dislike about their

current schools, getting them to describe what they want in their new school, either with pictures, plans, drawings or mood boards and then critiquing plans as they develop) and move instead to a more creative platform over a much longer period of time. If this creativity was unleashed on fictitious and futuristic learning environments, instead of 'live projects' it may be possible to facilitate a collaborative environment which may result in designs that are innovative. Further research is needed to explore this possibility.

There is however a benefit to involving students even if it is only at the level of consultation; the research demonstrated that involving the students throughout the design process, does keep the design team focussed on their needs and that in this way the students are able to exert an influence. Also that the design can be inspired by students because empowered contributors to the design process can become an advocate.

The building of a new school is a major project for all concerned, it probably only happens once in a lifetime and is seen by many involved as a legacy they will be leaving for future prosperity. It is not something that can be taken lightly and understandably therefore evokes strong emotions. It is also a very costly and risky endeavour. It is not therefore surprising that this process can become a battle of wills and one where people are reluctant to relinquish power. The power struggle that results; who holds the balance of power and the level of risk aversion within that group will all impact on the level of innovation in the completed design. Changing culture and ethos of a school within the tight timescale of a project is unlikely to succeed and therefore processes that can create the environment for student voice to have any chance of being heard and having any direct impact within this process need to be explored.

Future directions

The research revealed that student voice had very little impact on the completed design, compared to that of others involved, with very limited opportunities for their voice to be heard above the more powerful voices of others. The research demonstrates that unless there is a positive attempt to change the balance of power, distributing power back to the students, they will be unable to contribute innovation

in the design or have any direct impact on the completed design other than for small and insignificant areas, such as external habitat areas. This will not be possible unless new ways are found to work with students in a protected environment, where they are not overwhelmed by the agendas of others and the power struggle that this invariably creates. To ensure that student voice is heard not only during the consultation process but also during the iterative or collaborative stage of the design process we need to manage the situation and change processes. Elevating the students to the design/project team with equal rights, as we have seen would be impracticable because of the time involved and may be less than effective if students did alter their views as the research indicated may be a possibility. Tasking one member of the design team to work as an advocate for student voice may be a possible solution but this may not have the potential for releasing their user knowledge in the creative way that the Sorrell (2005) projects have been able to achieve.

A possible solution may be for a book of exemplar designs to be commissioned and created with pupil involvement, not only at the beginning, as tends to happen with design days, but by taking them through the iterative process of development for the whole design, through to RIBA stage C. It was suggested at a recent RIBA conference that young designers should be involved in designing BSF schools, but the research has demonstrated that this would normally be too much of a risk for an established practice to take. It is possible that the exemplar route could be a possible way of overcoming this dilemma, partly because the architect would be paid for the delivery of a commissioned exemplar design and partly because RIBA stage C, the concept stage, would avoid the later possibility of a claim, as the exemplar would then be adopted by an experienced architect to take it through to a built design. Staff and a Headteacher selected by the students could be invited onto the group as advisors.

The need for speed that invariably accompanies financial allocations and the short time-scales for developing building designs are frequently raised as a barrier to good design (Fielding, 2003). This issue was raised constantly throughout the research.

Too often the goal is to improve what's there. We are so grateful to receive funding for new buildings, so constrained by areas and guidelines and the need for speed that the process drives out innovation (personal transcript notes, Blueamber conference 'Another Brick in the Wall' 19th-20th September, 2005).

This need for speed also rules out the input of student voice on the very detailed and iterative design process because the time required would significantly impact on their curriculum needs. One possible way to overcome these issues could be that the LAs and schools begin their planning stages much earlier in the process. Although it is accepted that many of the students would not then be as motivated because they would not enjoy the benefit of moving into the new school, there is some evidence that the more detailed level of input this would allow would be of benefit to the students. The students could be selected to maximise that benefit, choosing students for example with an interest in design as a future career. A further consideration would be that the DCSF recognise the time scale and begin the process of planning with each wave of BSF schools at an earlier stage, which would also release funding to assist the process.

According to CABE there are four key phases in any project; preparation, design, construction, and use (CABE, 2004a, p. 5). The research would suggest that evaluation should be added as a fifth key phase. The literature review revealed very little evidence of this aspect and this omission could result in failure to recognise and learn from experience and previous mistakes. It was clear from the research (Appendix A) that students do have a valuable role to play in evaluating completed schools and could make a valuable contribution to post occupancy reviews which should be encouraged and documented to ensure that architects and design teams continue to learn from examples, good and bad. This involvement of students in the reviews would strengthen student voice taking them into the directive role described by Lee and Zimmerman (1999) or that of a student researcher described by Fielding and McGregor (2005).

As watchdogs for the DCSF, CABE should also be involved in this review of every school completed, which when published could add to the library of knowledge and

inform every new project. Reviews of designs on completion, with student involvement, could be filmed for Teachernet for all to see and learn from. A web page should be developed; the designmyschool.net page or Teachernet should be extended to inform all stakeholders of the body of knowledge and research available, including the pupils' views, together with a library of photographs demonstrating good and bad design practice in designing learning environments.

The research demonstrated that students had little influence on the innovation of the design but that the role of the Headteacher could make the difference between a school design that embraces innovation, and one that remains more traditional. For most Headteachers, involvement in the planning and design process of building a new school will be a one off, a new learning curve. It will probably be quite a daunting experience. To assist with this the National College of School Leadership has developed a programme for Headteachers who are preparing for BSF waves. The focus is mainly about transformational learning and the management of change. It would appear that there is a dilemma, in that Headteachers are expected to think student centred, personalised learning, changing classroom delivery (tried, tested and safe) and adopt a more personalised approach to learning and the spaces needed to support that, more open plan, flexible learning spaces but at the same time maintain or improve standards and behaviour. Letting go of the 'norm' requires a leap of faith, which many will be reluctant to take. A short course is not likely to change this opinion significantly. They will need hands-on experience and evidence to change opinions developed over many years. Perhaps the course should be attached to a study tour of the schools identified as 'good practice', so that Headteachers can acquire first hand experience of how different learning environments can affect teaching and learning; or perhaps there should be a 'buddy' system for Headteachers about to enter the BSF programme linking them to a transformational school with shadowing opportunities made available.

The Headteacher at the SW meeting described on page 108 of this thesis was prepared to drive the transformational agenda through but what is his agenda in doing this; to satisfy his own belief, because of a desire to become an advocate for student voice or to progress his career? Will he want to move on after the project is completed, as happened at the Bexley Academy, and what impact is this likely to

have on how the completed design is used? Should the government be looking for strong Headteachers with experience to act as facilitator during the building period or would that only add to the already complex combinations of agendas? Delivering a transformational message (that many staff find very difficult) may only add additional conflict to the planning and design process that already tends to be quite tense.

This research has been conducted on the basis of accepting not only the need and benefits of involving student voice, but also based on the belief that transformational and flexible learning spaces are a good thing to have and will result in the inspirational learning environments that it is said, will encourage students to achieve their full potential. The research demonstrated that many remain unconvinced and that there is a reluctance to change. Flexible learning environments may well work in small schools, such as the one cited by Heppell in New Zealand, it may work in other parts of the world such as Scandinavia, but then the student discipline may also be different. Staffs are not convinced that it would work in the vast majority of schools, many of which cite behavioural issues and concerns with potential attacks on students and staff as a major issue? This belief and concern about behaviour will impact on the development of the building design and on the way the building is managed after completion. Further research is needed to explore and validate the beneficial claims made.

Recommendations

A book of exemplar designs could be commissioned and created; with students working through a collaborative process, along side young designers through the concept and iterative stages of a school design. This would have the additional benefit of creating the right environment for young designers to develop their skills without the risk constraint identified during the research.

We should be learning from our mistakes and carrying out post occupancy reviews of every new school, involving children in the process and publishing the results. Involving students in the reviews would strengthen student voice taking them into the active or directive role. CABE also have an important role to play in this process.

The design process needs to have someone with the influence and power to drive the transformation agenda. This could be the Headteacher if they have the right credentials or training, or perhaps there should be a 'buddy' system, with experienced Headteachers acting as facilitators during the building period. The training provided should be strengthened to include a study tour of the schools identified as 'good practice', so that Headteachers can acquire first hand experience of how different learning environments can affect teaching and learning. The training programme should also be compulsory. Teacher training could also be expanded to include aspects of designing better learning environments, although it is accepted that this could take longer to have an impact as it may be some time before newly trained teachers are in a position to influence school design.

The timescale for the design process is perceived to be extremely tight and consideration should be given to beginning the process at a much earlier stage. This will create problems for student involvement as many of the students will have left and will not therefore have the motivation. This could be addressed by selecting students for the early stages of the design process who have the maturity and interest because of career aspirations in their future.

The cost implications of the present system should be reconsidered. Improvements could be made by changing the procurement process so that the PFI process (which the DCSF are unlikely to abandon) is divorced from the design process i.e. the tenders are invited against completed designs with the quantity surveying and costing process already completed. This could be achieved by extending the number of exemplar designs, and expanding the time scale for the design process.

A further issue related to cost was the constant reference to the financial burden of schools releasing senior staff time to be involved in the planning and design process without a financial recognition. This issue needs to be addressed by the DCSF if schools are to take their responsibilities seriously and fully engage in the process. An allocation should be added to the fees percentage allowed by the DCSF in the funding formula to cover this aspect.

There is considerable resistance to the DCSF assumptions on the benefits of flexible learning spaces, personalised learning and transformational learning environments. To change the deeply embedded views and prevent the tendency for designs to ‘drift’ back towards the more traditional status quo areas that teaching staff feel more comfortable with will require a body of evidence to demonstrate the positive impact on standards. This aspect requires further research.

The Innovations Unit, which was part of the DfES have, for a number of years, invited applications for innovative classrooms of the future. These inspirational designs have then been published to inform the designs of future classrooms. Perhaps the prize of a new school would create the right sort of situation to inspire the innovative learning environment that the DCSF are striving to encourage?

Epilogue

The draft thesis was submitted to Russell Andrews, Education Director of Partnership for Schools to see if the findings accorded with what he had concluded about incorporating student voice in the process of designing school buildings. His e-mailed response is reproduced below:

Wendy

Really enjoyed the thesis and it is very well written. Your conclusions broadly correspond to my (totally subjective) observations of projects that have invested time and effort in gaining pupil views. Much of it seems replicable and LA's might save money by referring the Sorrell Foundation outcomes. Whether there is a democratic/citizenship benefit is a different issue altogether and if this what schools want to promote then they would probably go about the exercise a different way.

My focus at the moment is on transformation on 3 levels through BSF. As a hierarchy:

Estate wide transformation

Buildings transformation

Transformation of practice within buildings

Much of what has happened to date in BSF has concentrated on the middle level i.e. buildings, however for real transformation we need to be seeking estate-wide transformation and transformation of practice within buildings. If we start at these two outer levels then

thinking about the buildings ought to drop-out naturally. So I'd be much more interested in starting with pupil views on the estate, ie where and when they should learn – it could be at home/the local library/local small businesses/museums in addition to school sites. Then go down to practice within buildings – what are pupils' views about the internal cultures and processes of schools and learning spaces? That's really useful data, that would be contextualised to the local situation and promote real citizenship!

Russell,

The draft thesis was also submitted to the DCSF Schools Capital Design Team. Peter Kemp, Senior Architect for the Capital Design Team, kindly agreed to peer review the document and his e-mail is also produced below:

Dear Wendy,

I apologise for not replying until now.

I enjoyed reading your thesis. It was well written and I thought the research gave an objective insight into pupils' views. It adds some convincing evidence to work already done in this area.

How to extend involvement in the consultative phase is complex and understandably difficult to give guidance on. In the case of early academies, for example, there was considerable influence from sponsors and educational advisers who often took a challenging view to current guidance.

At least the information on pupils' views should form some part of the designer's understanding and make them aware of the pupil as user.

I think the importance of feeling valued in the process probably has wider reaching benefits, at least for the first users. I think further post occupancy research into how children react and how their views are influenced by their new school environment would be a very useful follow up.

Peter Kemp, 29th August 2007.