

LEARNING BITES

EDITION 1

SEMINAR SERIES

Lessons from Kingsdale

The Headteacher's Perspective

Six years ago Steve Morrison was appointed Headteacher to the school, with circumstances "as challenging a school as any in the country", as described by Chris Woodhead, Chief inspector of schools at the time.

The context

A significant amount of funding had already been spent on improvement, without success. The School Works project at Kingsdale was about raising attainment, not specifically a building project.

The project was based on the idea that an improved built environment can have a positive impact on educational attainment. This was coupled with involving the school and community in the process, to both positively impact on the school culture and provide the most effective design solutions. Then Education Secretary, Estelle Morris, initially offered to fund a small building project to test this idea, but Steve Morrison and the School Works team were adamant that it would only work on a large scale. The attitude at the time was to question spending money on a building when it could be spent on books and computers. It was within this climate that the successes of Kingsdale School have been achieved. Morrison points out that a well-designed quality built environment endures, long after teachers, staff and pupils have moved on.

The Architects Perspective

Alex de Rijke, senior architect dRMM, was the lead architect on the Kingsdale /School Works project and continues to work with Kingsdale project team on the latest phases of work.

The context

Kingsdale School is one of the many typical post-war comprehensives across the country built during the last major phase of school building. It was designed by Leslie Martin in 1959 during a phase of experimentation with pre-fabricated steel frame buildings. Designed around the concept of a community oasis, the school sits amongst various other community buildings such as a local primary, nursery and housing. However, since the building's conception, the surrounding area has become affluent with many residents using private schools such as nearby Dulwich College. Kingsdale had, paradoxically, become a "reverse oasis":

- Local school - no locals attend (no local primaries are feeder schools)
- Ethnically diverse school in a predominately white area
- Glass school that you can't see in to
- Community facility that doesn't engage, set back from the road

At the start of the project Kingsdale was a school in special measures. Then came the appointment of an enthusiastic new head, who was open to change.

LEARNING BITES

The Learning Bites are designed to provide open access to all the learning and informed discussion from School Works' programme of events.

This edition has been produced from the "Lessons from Kingsdale School" session of our "Richard Feilden Future Schools Seminar Series" on 25th February 2005.

Chaired by School Works Managing Director, Ty Goddard, we invited 3 of the key partners in the redevelopment and renewal of Kingsdale School to give their perspectives of the project.



Stats Bites

1998 on OFSTED special measures

2000 came off Special measures

2000 11% pupils achieving 5 or more grades A*-C (GCSE/GNVQ)

2001 17% pupils achieving 5 or more grades A*-C (GCSE/GNVQ)

2002 41% pupils achieving 5 or more grades A*-C (GCSE/GNVQ)

2003 42% pupils achieving 5 or more grades A*-C (GCSE/GNVQ)

2004 47% pupils achieving 5 or more grades A*-C (GCSE/GNVQ)

Top 25 of most improved secondary schools in the country 2002,2003,2004!

KINGSDALE SECONDARY SCHOOL , LB SOUTHWARK

The Architects Perspective - Design Solutions

The initial strategy had a simple focus: “Create a heart at the centre of the School”



Participation

dRMM were happy to adopt the participatory approach developed with School Works. Across the first year planning stage of partnership, the full spectrum of stakeholders were involved. As architects, dRMM were interested in harnessing the knowledge and creativity of the pupils and wider stakeholders. Participation is not about asking participants to design buildings; it's about releasing the user knowledge and creative potential. Stakeholder involvement took many creative forms, such as free-associated montage. It provided the opportunity for participants to highlight their greatest struggles within their school environment, for example “trying to get down 100m of crowded corridors with no daylight.” dRMM integrated stakeholder input with their own more standard architectural analysis. They found the main asset of the school was land space, again in contrast with the surrounding areas' expensive and densely populated land. After extensive stakeholder involvement process it was decided to remodel the school in a phased approach, which after 5 years, still continues today.

ICT

Building works began with a pilot ICT suite. As de Rijke put it “buildings tend to bite back” and in this case asbestos and servicing problems were discovered. This helped to inform the planning and budgeting for the major works. The ICT suite has designed-in cross ventilation and light, an acoustic ceiling, comfortable and adjustable furniture (quite normal on the continent, according to de Rijke). Some physical remains of the dark corridor are now transformed into a timber clad “floating island” to provide storage, work space and area separation.

Circulation

The new design gets rid of most of the corridors to avoid circuitous routes. Glazed office suites were placed at the corners of routes to further break open the corridors. This increases the passive supervision, visibility into staff offices and includes them as part of the new circulation spaces. Alex described how buildings can have a repetitious rhythm created by the lighting, vents, and doors. The use of coloured bands on corridor walls was designed to break up this monotony.

Circulation was improved across the courtyard by the creation of direct, raised walkways in the form of a figure of eight. The open layout, in which everyone can see everyone, again uses passive surveillance to improve security. The refurbishment also integrates a timber clad lift, introducing full accessibility to all levels of the school.

The Courtyard and Roof

A key design objective was to open out the central courtyard for circulation and mixed use. This involved superimposing a roof canopy over the original structure, bringing outside qualities of environment inside. The roof canopy is made up of 3-layer ETFE cushions, the same Teflon coated plastic membrane used for the Eden Project

in Cornwall. A cross-pattern printed across the surfaces allows passive solar gain (heating from sunlight) to be controlled by inflating or deflating cushions to adjust the pattern density. Ventilation is provided by side vents with automatic or manual control. This was a genuine product innovation that had “never been done before”.

Alex de Rijke describes the courtyard as a “very adult” and “premier league architectural space”. One pupil assumed these “special” facilities must be exclusively for teacher use. Alex de Rijke sees this as reflecting the lack of self esteem felt by the pupils at the time, and yet also confirmation that this was a breakthrough in standards for school facilities. The courtyard has an impressive sense of scale and the quality of the light filtering through the membrane changes throughout the day.

The Auditorium

The theatre auditorium within the courtyard represents a building within the building. By using previously existing foundations, this detached facility houses a separated Library and Auditorium. The geodesic, plywood clad structure helps to maintain openness within the courtyard whilst remaining attached to the main building. With isolated access and acoustically shielding, the auditorium be used entirely independently of courtyard activities and for community use. It was entirely manufactured off-site. To add to the creativity of the space, the help of Dutch art collective Atelier van Lieshout was enlisted, who in uncompromising style, turned the heating vent into a “useful art” installation.

dRMM is now working with the school project board to build music and sports blocks, linking to the “heart “of the school.”

Genuine Partnership

The chosen contractors Galliford Try were committed to being genuine partners in the project. Instead of setting everything pre-contract they were very open to shifts and changes as the project evolved and encountered problems: “To be honest the contract stayed in the drawer since we started.” Neil Scott, Galliford Try Enthusiastic Head, Steve Morrison, has provided essential input. The value of his pure enthusiasm and insistence on the highest standards cannot be overestimated. He has always pushed for higher standards throughout the process, and continues to do so.

“THERE AREN'T REALLY ANY LIMITS, IT ONLY DEPENDS ON THE ATTITUDE OF THE PEOPLE INVOLVED”

Alex de Rijke

“YOU CANNOT OVERESTIMATE THE VALUE OF HIS PURE ENTHUSIASM AND INSISTENCE ON THE HIGHEST STANDARDS”

Alex De Rijke on Steve Morrison

The Heads Perspective - The Learning Experience

The environment in which pupils spend time outside of classes strongly affects their state of mind for lessons

School Journey

The original building was based on delivering little packets of knowledge in one area, with pupils arriving at the next room ready for the next package. The experience in between was completely ignored. The environment in which pupils spend time outside of classes strongly affects their state of mind for lessons. The school had



already looked at teaching methods and changes in the management of the school; however this alone was not enough. Steven highlighted the lack of focus on this issue: "If I said to the staff, you have to use pupil dining halls and toilets, how would they react? There would be retention problems and unions involved!"

Although the impact of employee conditions has been widely accepted, this thinking was never extended to pupils.

Circulation

When the process addressed transport time, the team worked out that 2 hours per pupil per week were wasted on lengthy journeys between lessons. The solution was to build a "heart" to the school through which all users could flow. The saving is translated into increased teaching time.

Social Spaces

The school was suffering from lack of shelter during bad weather. Finding lessons on rainy days particularly problematic, teachers were pleading "Don't inspect me on a rainy day!" Teachers and pupils alike suffered from the pressure and haste as pupils rushed to cram into whichever classroom was occupied by an unfortunate teacher. The majority were left in stairwells and corridors. This left teachers exhausted and the pupils unsettled.

The new atrium offers a large open space, with a calming atmosphere. The passive supervision frees up many of the teachers to prepare lessons or take a break.

Lockers

The school had lockers 15 years ago, but they were removed due to vandalism. The school is now revisiting this idea within the new layout. Steve Morrison points out that "some of the old ideas were right, just at the wrong time".

ICT Area

Deciding to focus on the worst area in the school to undertake pilot building work, they found that 90% of exclusions were caused outside classrooms whilst 90% of time was spent inside classrooms. The corridor area with the worst behaviour was transformed into the ICT suite. The problem now is trying to keep people out!



Passive Supervision

Previously the school had to enforce time consuming and exhausting military-style supervision using an "army" of teachers at break times.

The solutions emanated from the idea that: "if there is no possibility of being caught, even the severest of sanctions are meaningless".

Glass walls provide an effective solution without requiring extra staff time. Glazed shared office suites, situated at the corners of the circulation routes, leave people aware that their actions are constantly in view of others. Steve Morrison had to encourage staff, through the nature of the re-build, to work in a different way, moving from the previous multitude of hidden offices to open-plan shared spaces. The open walkways criss-crossing the central courtyard to create clear lines of sight over the whole area. The school has now managed to reduce lunch supervision from fifteen staff to one dinner lady! Steve Morrison puts this down to a simple point; Pupils are now aware of the very high chance someone will see any misbehaviour, without any confrontation.

Steve Morrison points out that it is no coincidence that the building work has been inside out. Much of the exterior still looks the same. This work has been focused to benefit the teachers and pupils.

"IT IS A BETTER LOOKING ENVIRONMENT. IT IS A PLACE WHERE PEOPLE WANT TO BE. YOU CAN SEE THIS IN EXAM RESULTS"

Steve Morrison on the new facilities.

PARTICIPATION AND PUTTING THE CLIENT FIRST

Morrison described how the "the impact of participation was immeasurable, amazing." 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. Steve Morrison doesn't see user involvement as a

democratic vote, asking what the majority want. It's about asking those who use a facility every day, why it isn't working.

Ownership:

Throughout the school, one area of wall had remained free from vandalism. A pencil line had even been scrawled either side, carefully avoiding this one

section. The section was a mural created by sixth form students 12 years earlier.

This was the one part of the school over which pupils felt a sense of ownership. The active involvement of pupils in the refurbishment has harnessed this sense of ownership and pride, massively impacting on vandalism.

Discussion Points:

Disruption

Alex de Rijke explained that school was fully occupied during much of the works. A small temporary decamp building was provided for four additional classrooms.

Partnership

In response to the importance of partners, de Rijke expressed that the Head, Steve Morrison, continues to push forward the limits of their work, and the DfES has provided enlightened support, recognising Kingsdale as an interesting exemplar that is an ongoing experiment worth funding.

Durability

de Rijke was asked about how reproducible the ETFE roof would be in other schools in terms of expense and durability. He explained that although the material itself is not particularly cheap, its special properties mean the lifelong costing can be very competitive:

- Extremely lightweight, saving money on the substructure to support it.
- Teflon coated, so requires no cleaning as dirt is washed off with the rain.
- Life span has yet to be determined as the pioneering use of this material in Arizona in the 60's remains in perfect condition to date! The suppliers provided a 30 year warranty.

Whole School Assembly

When asked about the initial vision of the project, Steve Morrison explained how the idea was to create a central "heart" of the school capable of housing the whole populus at one time. The space is capable of bringing together all 1200 pupils, or can be adapted for use in a variety of activities. He points out how this is commonly seen as not providing good value since such gatherings do not happen often, but during the stakeholder involvement it became clear this was a central feature of what people wanted. The additional benefits have been that the community now has a large space. The school benefits from the revenue generated. Some problems have been encountered with regard to controlling temperature and dealing with increased parking requirements, but the School seem confident these problems can be overcome. The courtyard allows extended use of the school and has encouraged a community ownership of the school.

"TO BE HONEST THE CONTRACT STAYED IN THE DRAWER SINCE WE STARTED"

Neil Scott, Galliford Try
(on Genuine Partnership)



Genuine Partnership

When asked about the synergies between the different parties, Steve Morrison began by highlighting the battle they were up against. The LEA were initially cautious until some funding had been secured, so the team had to capture the imagination, to sell the idea to the Minster and DfES. To do this the team chose not to spread

money out on "a lick of paint " but to focus on high quality spaces within the school. There now exists a "shared language" where the head knows more about architecture and the construction firms are talking about education. Steve Morrison was adamant that a "multidisciplinary team adds value to the project".

A WORD FROM THE CONSTRUCTION FIRM

NEIL SCOTT FROM GALLIFORD TRY

Neil Scott stressed the importance of a strong client vision. Clients need to make clear demands of the construction firms.

The 6 essential P's that can make or break a project:

PROCUREMENT

The steps taken in the client's route to procurement are key. You must have a robust supply chain. The amount of increased expenditure and lost time in "extras" which are negotiated by firms quoting the cheapest price can often far out way the savings in their initial quotes. Its not always most economical to go for the cheapest price!

PRICE AND PROFILE OF RISK

It is essential to allocate each risk to the party best placed to manage that risk. This needs to happen through genuine and open discussions.

PROGRAMME

A well planned but flexible programme of work is essential. Phase the work carefully.

PROJECT MENTALITY

For Neil Scott this is the most important of all. The project needs to become an entity unto itself, whereby those working on it become "servants of the project" and who are motivated by the good of the project rather than individual gain.

PERFORMANCE

Neil Scott compared this to an animal crossing the Savannah Plains. The quicker and most efficiently you can get across, the less danger and problems you are likely to encounter. Heavy protection from lengthy paperwork and contracts can become a negative hindrance to this.

PLYWOOD!

Galliford Try were initially concerned about dRMM's choice of plywood finish to much of the courtyards cladding. It is a soft pale wood finish, and in a school that was suffering from vandalism and graffiti, a brave choice. Neil Scott is delighted to find the surfaces remain free from harm to date. It is clear that investing in pupil "ownership" through participation and providing high quality well designed facilities, is paying off.

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