

Good design can help enhance the education environment, driving forward advances in educational attainment. Here, speaking to **PEN**, independent consultant **Alastair Blyth** underlines its importance

# The design of education

**A**lastair Blyth is a leading analyst on the relationship between design and education. A contributor to the OECD's work on design in the educational process, he has helped further the understanding of the need for good design amongst policy-makers. Here, he speaks to PEN about the need to continue the dialogue between designers, educators and government representatives.

## What is meant by 'promoting good design in educational environments'?

It's very easy to mistake good design with something that's just purely about aesthetics; I would disagree that good design is purely about aesthetics. It's much deeper than that. One definition might be that it's an efficient and effective use of resources, or at least looking at how you create an effective way of distributing resources to solve a particular problem. Design is really as much about problem seeking and solving in its broadest sense, although that's not to say that matters such as aesthetics don't come into it.

In terms of education environments, good design is about creating physical environments that support educational needs. So one might go on to say that the building should be safe, comfortable, fit for its purpose, and satisfy the needs for which it is being used.

One issue that often comes up is 'flexibility', which is quite a loaded word in a sense. One of the criteria for flexibility is that buildings should enable change. Teaching, pedagogy and learning change over time, and the building needs to respond to these changes. Indeed the context also



Alastair Blyth

changes, whether it is government policy or the curriculum, and of course, technology.

Having said that, spaces that are responsive to the needs of education should also be what I would call 'agile'; while flexibility might be described as being able to change a part of a building or classroom. The idea of being agile means being able to make these changes quickly, enabling classrooms or other spaces to be reorganised always on the spur of the moment. For me, good design enables the learning and teaching activities to take place. I don't think a well-designed school is a luxury; it's a necessity. Also, I think it is a critical aspect of education policy, because apart from the need to create environments which can support the education, a lot of money is going to be spent, the environment ought to work.

Therefore, you do have to pay attention to this. Obviously, you cannot spend an inordinate or unreasonable amount of money, but we do spend a lot on the physical infrastructure of the schools, whether its constructing them initially, maintaining them over a period of time, renovating them, or adding to them, and really we need to find good ways of not only making sure that buildings are designed efficiently and effectively, but also that they are continuously managed, as you have to make good use of that resource. Good design will help with this. Essentially, well-designed schools are critically important.

## How can good design be embraced without increasing costs?

Obviously part of the problem is the amount of money you've got to spend on school buildings. This is always a constraint, and one has to design within such constraints. There is no getting around this, whatever sector you are talking about. It is possible to achieve good design at 'affordable prices'. This may appear abstract and does depend on the context and what is understood to be affordable. To create a well-



A foyer used as a space for group work. Dom Dinis Secondary School, Lisbon, Portugal

© Alastair Blyth



© Alastair Blyth

designed school you need to invest in the whole design process, which is all about enabling the architect to get a good understanding of the educational needs of the school client, and enabling the client to understand how the design of the spaces can support their educational mission. This actually results in the creation of something that is useful, manageable and supports the activities that are taking place within the building.

### **Is there generally enough collaboration between the relevant actors in the education design process today?**

There can always be room for good collaboration – it's really more about where collaboration takes place and what it is, with the notion that there has to be a good dialogue between all the actors in the process. An interesting question is the role of governments: in some countries it is central, others more local, where a national government has said that providing school buildings is a local responsibility. While governments many have delegated responsibility, it is at the very least arguable that because they are setting national policy frameworks in which local authorities

### **A new use for an old warehouse space as a teaching environment**

have to act, that they still should be concerning themselves about the provision of what is a key resource for education.

Governments can play a key role in facilitating collaboration, for example they can leverage the ideas of good design, and actually encourage educators and designers to talk together and understand what it is they should be designing. In more narrow terms, they have to remember that it's not just a school that is being provided, but a school in a particular context and with specific requirements. The design process can be used to explore the education needs as well as the required response from the physical environment to those needs.

An interesting example of this is in Victoria, Australia, where the Department of Education and Early Childhood Development (DEECD) developed some standardised designs of schools, but these designs had some flexibility to enable adaptation to particular contexts. Architects were key to this design process. Standardised design is coming back into the education building debate now as countries look at ways to respond to the common problem of building new schools or adding new space to existing buildings within very tight budgets. In Victoria the DEECD worked with architects and designers to create what they call a 'template design'. They were able to create a template that was very flexible and were able to use it as a briefing tool to architects as they began to roll out their programme for extending schools. As a briefing tool, the architects were able to design to it, but also had the flexibility depending on the type of space being developed.

That kind of initiative is a good example of how local government can work with designers and educators to begin to develop something they can use in a fairly economic and efficient way. Of course standardisation



© Alastair Blyth

has come back into play because in these budget-constrained times, everyone is looking for a solution where you design something once and repeat it a million times. Policy-makers are looking back to the heady days of the 1950s and 1960s when there were a lot of schools built to modular designs. These were designed on a standard structural model, where many components were prefabricated and the school was built quite quickly to a standard design.

They were successful in delivering places to put students, but less so in terms of being flexible. Today many of them need upgrading now, because they are obviously 30 to 40 years old and generally not very well maintained. I think that clever use of standardisation recognises that there is no 'one size fits all', there has to be an appreciation of what can be standardised. This can vary from standardisation of whole schools, in order to construct hundreds of exactly the same schools across the country – as I say, not a good idea, or it may be standardisation of process to achieve a well-designed school, or the standardisation of certain elements of the design.

### **Over the past decade, what have been the primary trends in school design and how has the process changed?**

The main changes are the breaking down of the standard classroom box model, which saw the stringing of classrooms in a row, similar to a train carriage. The breakdown of this model is not happening all the time, absolutely everywhere, but it is one trend. What we are seeing therefore is greater recognition of spaces that can be described as 'in between spaces'. This may include the circulation spaces, and other spaces, that might even include cafes and recreation spaces. These are also being used much more as part of the learning environment, for example where

**Agility – this science space can be rearranged quickly.**  
**Northern Beaches**  
**Christian School,**  
**Sydney, Australia**

students can do group work on projects together. It is important to appreciate that this practice did happen before, as examples can be found going back to the 1960s and even further back.

However, the current trend is more about recognising the value of such spaces. In the past, and to some extent now, clients – the local authorities and governments – talk in terms of the space allocation and dedicate a certain amount to circulation, and so you have 5-10% of buildings devoted to circulation. There still exists the notion that this cannot be interpreted into a useful working space for education. Today we are seeing many more examples across educational buildings, be it primary, secondary or even higher education buildings, where you have these spaces being used.

Another design trend is to make visual connectivity throughout the building. Consequentially, a student or a teacher can see what is going on in all sorts of rooms and spaces in the building without being a direct participant. So you see more glass enabling you to see what is going on, or the incorporation of balconies enabling people to overlook activities. There is a lot more thought being put into the design process and as part of

efforts to try and enable people to feel connected within the learning environment to encourage students to feel a part of it. Generally there is much more interest in the overall transparency of the building so that from outside people can see in, and from inside people can both see out and see through the school.

Going back to flexibility, there is more recognition of the sizes of spaces, so that the flexibility lies in the provision of variation rather than just one big area that can be subdivided. Flexibility is not just about having one big room where one big partition is in use to subdivide the room. In fact, we are seeing many more examples where you have different sizes of space that are made available to cater for different types of configurations for learning, whether it is small group learning or larger spaces.

It is also important to consider what happens outside the four walls of the educational environment. There is much more interest in the idea of utilising spaces outside the school for their learning. It is not a particularly new idea but is being recognised as more important. Another great opportunity is how other types of buildings can be reused as learning environments, for example unused offices. I even have one example of a customs building being transformed and reused as a school building.

The dialogue between the educator and the designer is fundamental to the process of creating effective learning environments. The process of design can be utilised, and this is where 'good design' also helps to explore with educators how differently conceived learning environments can help facilitate the learning process. With projects for new schools this can be difficult because there is no existing user client with whom you can have this conversation. But you can perhaps work with a surrogate and develop such projects with an existing school or a school working as an 'acting client'. This involves working with the principals, teachers and students, to explore the nature of how education happens within the school environment through the testing of ideas and dialogue. Including students in the dialogue is crucial if we are going to get a better understanding of how learning works.

However, it's really important that both designers and educators speak a common language, for having such discussions. By that I mean that



**Creating a vibrant circulation place**

they can communicate. Very often architects do not fully appreciate the nuances in the language of education, and educators will not always be able to read architectural plans and drawings. This means that architects have to be careful to devise means whereby this communication can take place. But when successfully applied, you can use the process of design to really uncover something that may have been implicit or may have been hidden in the sub consciousness of educators, and actually surface them. What can happen is that as you have a dialogue with the client, you begin to realise that the design solution isn't quite what they originally assumed it would be, and that's when you know the process is working. One other area which needs attention is finding ways of helping teachers use the space better.

Having talked about redesigning the physical environment, one problem still remains. That is that teaching has to change too. While educators are talking about new techniques and pedagogies, a huge amount is still conducted with students all lined up in a row with the teacher at the front of the class. It is very difficult to break that mould. One way of doing this might be for designers to work with teachers about how teachers can use the spaces differently, but it's something designers keep coming across. Put simply, designing a new school with a different layout isn't going to mean teaching is done any differently. If they don't want to take the opportunity of using their new spaces in different ways, they will try to get the whole thing to work as it used to.

### **Can design therefore be used as a catalyst?**

It can be a catalyst, but it doesn't just stop there.

**Alastair Blyth**

**browse [www.alastair-blyth.com](http://www.alastair-blyth.com)**

