

It is often claimed it is difficult to be innovative with school design, since traditions and culture are so powerful within schools that change is difficult. This is not necessarily true, and over the last 100 years a significant amount of change has occurred and been embedded within the school building

Not all of this innovation or change is permanent: a variety of progressive, child centred approaches such as the “open plan” school movement in England, for example, failed to become part of the mainstream primary school for a wide variety of reasons.

Globally, over the last fifteen-twenty years, there has been significant investment in school buildings. Programmes. In other countries, investment has been much lower but the school buildings created have tended to be more innovative due to the lack of pressure on scale. Yet the UK is starting to develop some innovative ideas too.

Here are a selection of the most effective and innovative school designs. Some of them are well known examples, but the lessons learnt from these deserve repeating.

01. Learning spaces can be specialised around specific pedagogies or learning activities



New Line Learning, Kent, by Gensler



Abraham Guest Project Faraday Solution, Wigan, by DEGW

Most learning spaces in existing schools – classrooms or labs – are generic learning spaces filled with standard sized tables and chairs, aimed at supporting a very wide range of activities and pedagogies, but knowing they will only be adequate at doing so. They are trying to support activities that may range in group size from individual, to paired, to small group, to whole class. These activities may have differing degrees of interaction between peers and staff.

The solution is to begin to specialise learning spaces to support a wider range of activities. This allows staff to utilise a broader range of pedagogy. The learning space is designed around a number of potential activities and pedagogies (without becoming too specific and fixed, such that it only supports one pedagogy, such as Create Design Implement Operate).

This can happen with one room, which tends to require larger spaces with larger groups within them to be affordable. Examples of this include [New Line Learning Academy](#) in Kent which have created learning plazas with a variety of large and small group settings.

It can also happen across a suite of spaces, where different spaces are purposed for different activities, such as the concept for Abraham Guest within Project Faraday, where science spaces were specialised to separate out experimenting and debating, for example.

02. Schools are being organised around alternatives to curriculum-centric models



Leigh Technology Academy, Dartford, by BDP



Hellerup Skole, Copenhagen, by Arkitema

Most secondary schools are physically organised around a subject based curriculum model, leading schools to create suites of spaces for each department or faculty that learners go to in order to access content.

One alternative to this is organising around the learner; instead, to create a better sense of “human scale”. This breaks down a large school into smaller groupings, based around the concept that it is difficult to form meaningful relationships with more than 150-200 people.

Small schools within schools can be vertically split, such as [Leigh Technology Academy](#) in Dartford by [BDP](#), where students join one mini-school and remain within it for their school career. They can also be horizontally split into “home bases”, where the school is organised around combinations of year groups and learners spend the majority of their time in these groups. An example of this is [Hellerup Skole](#) in Denmark, the concept of which was created by [LOOP](#) and which was designed by [Arkitema](#). In the [Space for Personalised Learning](#) project for [Phoenix School, Telford](#), we are taking a more fluid approach, with a combination of vertical and horizontal minischools to create a very specific organisational model.

An alternative to organising around the learner is to create a number of multipurpose, highly versatile suites of spaces that are not specified for a learner group or department. This is appropriate where learners are co-constructing curriculum options and modules with staff, requiring significant flexibility in planning space, delivery space and independent/group space.

03. Schools are piloting new approaches to teaching and learning prior to building



Chantry School Learning Hive, Concept by DEGW, Design Scott Brownrigg



Chantry School Learning Hive, Concept by DEGW, Design Scott Brownrigg

For a small investment relative to the scale of a new school build, space can be created within a school to research and develop new approaches to teaching and learning in advance of a building scheme.

This has huge advantages in terms of change management and CPD, but also in terms of creating informed clients to engage in a briefing process around the whole school design.

Most importantly, it gives schools an opportunity to be radical in their approach, assess whether it has been successful, and if so approach whole school implementations with more staff “on board” than before.

One school that has developed this approach particularly successfully has been Chantry School, in Ipswich. Working with our [Space for Personalised Learning](#) team, they developed a concept for a space that would allow them to experiment with a variety of pedagogies and approaches.

They are currently using it to examine whether putting together teaching teams from different departments working with a year group of learners over one week in a project could be a successful development strategy. Staff have initially struggled in the new environment, then thrived. Learners have loved the experience.

The aforementioned Plazas in New Line Learning are also pilot spaces. Version one, by Allsop Architects, acted as a transition space for new year 7 learners coming from primary. Version two by Gensler, a little bit more mature in feel, is for year 8. These are viewed as prototypes to inform the final school.

04. Schools are being created in non school buildings



Valby Skole, Denmark, by RIA



High Tech High, Stichler Group

When Local Authorities lack the investment required for a new build, they often look at how to remodel the existing school building. This may not always be fit for purpose, or may provide a range of constraints on innovative practice.

However, there are a range of other buildings that may exist close to the existing school that may be well positioned in the local community and could be repurposed into a school.

This may be existing office space, warehouse space, or even retail space. This may not need to be purchased – it could have a long term lease. Instead of spending money on architectural interventions, money becomes more targeted at a fit out and may cost significantly less than a school remodel or new build.

One example of this is Valby Skole in Denmark. This school relocated into a former porcelain factory. The change in building type allowed them to think from first principles about the kind of spaces they wanted to create, eventually creating something significantly more transformational than what they had before.

Similarly, High Tech High in San Diego was developed in a former naval training base, which provided a “clean slate” to produce a school of the future.

05. Schools are connecting to other real estate in their local community



Discovery 1 and Unlimited, Christchurch, by Wynyard Design Studio



LA Fitness gyms

We tend to imagine schools as being mini islands, where people enter and exist at set times and which house every activity required under one roof.

In practice, schools find it expensive and difficult to create certain types of facilities, well. An example is fitness gym space, increasingly prevalent in schools but usually built too small and with poor quality machines. In some locations, these facilities exist commercially only minutes away, and during the school core hours may be poorly utilised as its core customer base is at work. A long term partnership could be brokered with such spaces.

Extending this principle further, other real estate in the local community, from library space to performance space, to other schools, could also be linked into a network and used by learners. This requires a different understanding of how learners manage their learning experience, but has been done successfully in both a primary and secondary context in New Zealand.

Unlimited, located on the top floor of a Christchurch shopping mall and leasing an adjoining office space, uses pre-existing public facilities located close to the school, from the National Library, to a local gym, to a local polytechnic's advance science facilities.