

Denmark is currently embarking on the ‘New Nordic School’ project, designed to nurture the values and characteristics that have ensured the success of the Danish education system as architectural leader, **Gitte Andersen**, explains

# Quality of space

**G**ood design and the quality of physical space play a very important role when it comes to the quality of good learning environments. From the advice we provide at SIGNAL Architects, we know that space is a strategic tool to reach organisational goals, as well as in learning environments.

There is today a demand for differentiated learning – where the traditional school classroom is one place amongst many sites in which learning takes place. Therefore, there is also a call for bringing in differentiated learning environments with a variety of others and where design, pedagogical learning and space go hand in hand.

It could be places that both support interaction as well as autonomy, spaces that promote both group learning as well as focused learning, spaces as an alternative to learning in ‘hard chairs’ behind tables on rows, facing the teacher and the chalkboard, spaces that teach our children all about ‘the art’ of cross disciplinary work in teams.

This is more or less what top management in organisations in Denmark find is the greatest internal challenge in developing more sufficient and, at the same time, attractive working environments – something important to the skills we have to give our children at school.

## Quality of space

We cannot push and develop the quality of differentiated learning principles without doing something about the quality of space. What we have learned, from a lot of development projects in different learning environments on this issue, is, that developing the design and the quality of the space has a lot to do with challenging the private ownership around space in schools.

Generally every class has a private link to its own educational space. Therefore most classrooms remain similar to ones that we entered when we went to school.

So bringing in diversity in space, you also have to bring in common ownership to space – shifting from ownership of a single classroom to teaching within the school’s communal areas – a number of teaching styles can be used. For a teacher, this can be beneficial.

In achieving this, it is a matter of looking at this process as not only a building process but a change management process. It must also be a process that involves the end-users, because it is the teachers whose perception needs to be challenged in regards to blending



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learning. This calls for blended ownership and blended educational techniques in this space. The physical design of the surroundings is also an important factor.

## Richness of resources

From a lot of observation studies conducted in primary schools all over Denmark, it is clear that there is a richness of free m<sup>2</sup> resources during the traditional ‘peak hour use’ of the schools during the day which is closely combined to the private ownership of classrooms.

There are a number of key figures from these observations:

- In general there is between 29 – 36% free capacity in teaching rooms/classrooms spaces during the day in the school;
- Group areas are typically only used 20% of the time, and therefore they are free 80% of the time;
- Professional or special classrooms are typically free 70% of the time;
- Canteens only being used for lunch leaves them free for other activities 75% of the time;
- Libraries are typically free 28% of the time.

What is interesting about these key figures is how it shows that in the future we could use all this free space to create better learning environments in all the existing schools we have in Denmark. In the future there will not likely be a focus on constructing new schools. Realistically, a programme to rebuild schools will be developed, perhaps accompanied by a rethinking of what the school means today through a ‘mental rebuild’.

By going from private ownership to common ownership to m<sup>2</sup> and space, we could for instance transform the space into:

- New project areas for the students;
- Spaces that promote new learning with focus on diversity and new artefacts in space that promote and develop new learning principles – also giving possibilities to combine theoretical and practical learning;
- Bringing in new spaces for all teachers for preparing together or alone – but at the school, and maybe also being available for the students during the day;
- Bringing together a variety of institutions considering new and different kinds of offers to the students during the day – from pre-school institutions, after school sport or music institutions, activities that could share space during the day with focus on bringing in new offers in the welfare society, with focus on higher quality to the children and the adults that work with them;
- Areas that have a focus of integration of special learning for the pupils that have special needs – also allowing the participation in normal class learning but also having the opportunity to have small focused areas designed differently.

When it comes to what government should do to promote good design for public schools, there are four recommendations;

- Help develop the expertise of teachers through creating new spaces to strategically develop their long-term learning and training. At the same time promoting learning processes so teachers and students throughout their education build an awareness of how design of space plays a very important role in the quality and diversity of their own learning;
- Challenge the private ownership to space – and shift thinking amongst education practitioners – bringing in new perspectives in both the training of teachers as well as training for current teachers. This training would focus on teamwork, and draw

attention to outside class learning. At the same time, sharing spaces with other institutions can be a boon – helping utilise all the free resources we already have in our existing school infrastructure. This would also be a very sustainable way of using resources;

- Support pilot projects where schools and other relevant institutions co-operate together in sharing and developing new concepts for learning and playing. New concepts for sharing, new strategic concepts for the use of space, and new concepts promoting diversity, where a focus on both the individual student, as well as the community, goes hand in hand, ought to be pioneered;
- Ensure local ownership of the development of this new ethos towards the use and sharing of space. It will be important that this support goes together with support and commitment from the local municipality, pilot institutions and the boards of relevant institutions.

The support should be financial but it is also important to support the change management process. In fact this process will have more to do with a mental rebuild than a physical rebuild. It is therefore crucial to ensure end-user involvement from teachers and all other professionals involved, as well as the students.

This change management process in particular is something where architects, designers and educators, as well as people from municipalities could work together, right from the initial programming project-phase to ensure that pedagogical learning and the design of space goes hand in hand. It calls for new ways of programming where it is necessary to challenge the usual 'prolonging of the pass' and bring the focus on new habits and new ways of using space.

There is a great deal going on in Denmark at the moment when it comes to combining learning and the design of space. In particular there is new attention on using the resources we already have in a better way. Due to economic problems and increasing demands from citizens for a larger welfare state, it is important to think about how the design of learning environments takes place. New ways of thinking on the use of resources are required. Importantly, the experience so far is where by sharing more, greater access to educational facilities can be guaranteed.

This is something other countries can take away from the Danish attitude towards, and experience of, designing better educational environments.

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