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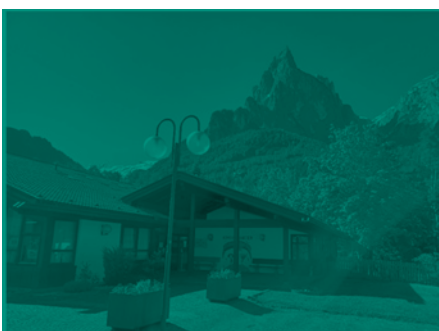
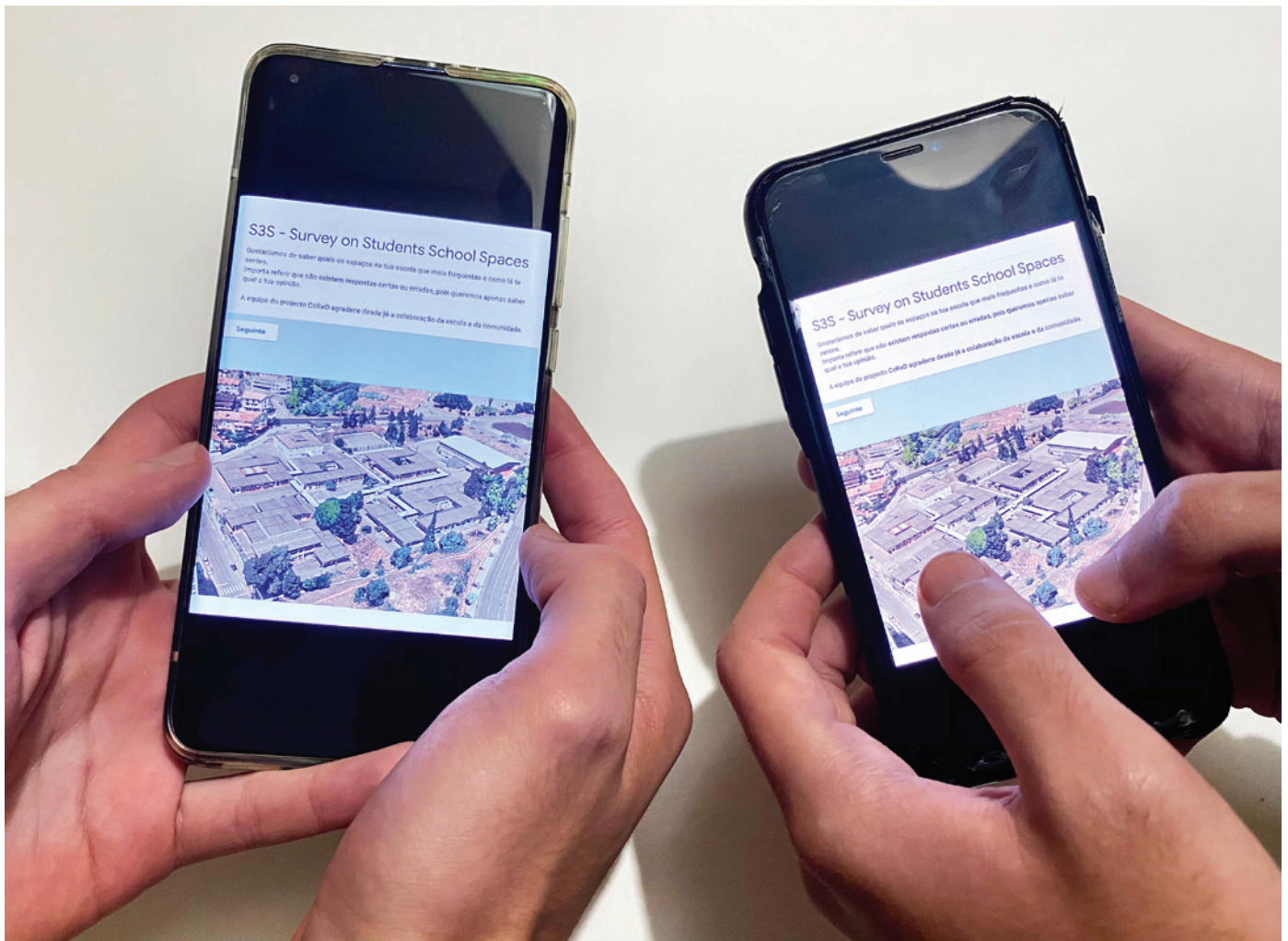
CoReD



Collaborative
Redesign
with schools

CoReD Principle 4:

Appreciate the complex, lengthy process
that is change





Space matters for Education

Physical space and material resources, both what you have and how it is organised, make a significant difference to the processes and products of learning and teaching. Research conducted over the last half century in many different countries and multiple educational settings, has shown the impact of the physical learning environment (Higgins et al., 2004; Byers et al., 2018) and encourages the funders and users of educational infrastructure to try to improve their premises and resources (Blackmore et al., 2011; Duthilleul et al., 2021).



But no learning environment, however ‘innovative’, is a magic bullet. Just as was seen with developments in IT at the end of the 20th century (Cuban, 2001), equipment only gets teachers and students so far. Across all types of educational resources, both physical and digital, the key to success is achieving a match between what you have and what you want (and are able) to do with it. The fundamental importance of this relationship between design and use is the take-home message from numerous attempts at innovative school design in the past (such as ‘open plan’ schools in the 1960s and 70s) and the present (ILEs in Australia and New Zealand; building for personalised learning in Iceland; schools for the new core curriculum in Finland).

To align the design and use of educational settings, we can look to key ideas developed through participatory user-centred design, which concur with knowledge about educational change: **people need to work together**. Collaboration is central to develop shared understandings of educational values and goals; of the processes and activities needed to achieve these; and of the choice and arrangement of physical resources and spaces that these activities require.

Such collaborations will be different every time, with many local decisions to be made: who should be included in the collaboration (school students? Teachers? Other school staff? School leaders? Municipal decision makers?). When should different groups or their representatives be included? What funding (if any) is available to change the premises? What is the timescale of the change process?

There are, however, some consistencies across participatory processes. Collaboration takes time, and it can be hard to know how to approach discussions about school space with people who see it from the perspective of users, rather than as planners or designers. This is where the CoReD tools come in, presented through our guides, which cover each of four principles for facilitating successful collaborative engagement about school space (Woolner, 2018).

Collaboration is central to develop shared understandings of educational values and goals

This guide is to help you to...

1. Start where people are (mentally and physically);
2. Understand the intertwining of physical, organisational and social aspects of school environments;
3. Facilitate the exploration of ideas and possibilities;
4. **Appreciate the complex, lengthy process that is change.**

Appreciating the complex, lengthy process that is change ...

In any setting, change is always hard. History and experience show that education is no exception to this generalisation. There are also particular challenges for attempts at change in education, including the need to ensure all members of the school community are committed to any change, with all groups (staff, students and parents) prone to conservatism in differing ways and about different things. There are also many other demands on the time and concerns of school leaders, teachers and students, such as national and international comparisons, new and revised curricula or other policy changes, all of which can make additional changes seem overwhelming.

Fullan is read widely for his advice on change, which can be summarised as follows: get new approaches really embedded in school structures, have a critical mass of school staff trained and committed, and have a procedure for continued support (Fullan, 2007:102). But he also makes the point about how long a successful change can take to become established. A further issue connected to time is that, once a collectively agreed and well-supported change is initiated, any delays can be demoralising. Such delays are quite common in projects to redesign and refurbish school spaces, often due to problems with funding, and it's important not to lose sight of the original intentions. Research shows that it is worth persevering because changing space can be such a powerful way of enabling, supporting or entrenching other educational changes (Woolner et al., 2018).

The activities suggested under this Principle, and the CoReD case studies of tools in use that exemplify them, are all rooted in school communities, their spaces and the things they (want to) do there. Sometimes collaborative redesign processes begin with the space, perhaps because an opportunity for spatial change arises, but sometimes the impetus comes from other aspects of the educational experience or school practices. However the change process starts, and whatever the twists and turns of the journey, there are tools and ways to use them to help you stay on track.

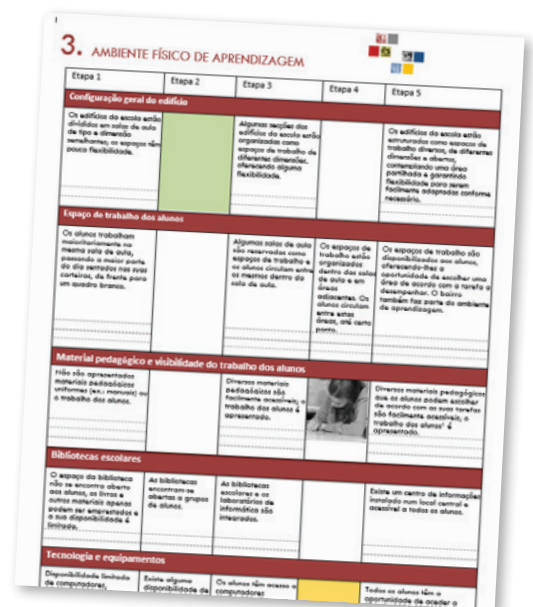
Which tools work best to address P4?

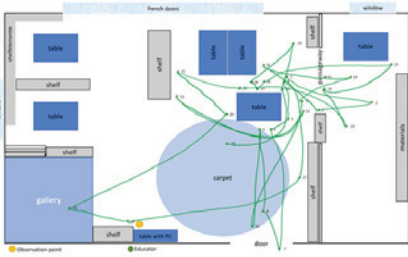
	UK tool: Diamond Ranking	DK tool: Stories of Educational Spaces	SW tool: Pedagogical Walk-through	ISL tool: School Development Evaluation Tool	PT tool: Survey on Students' School Spaces S3S	IT tool: Cartographic observation
1. Start where people are (mentally and physically)	✓✓	✓	✓			✓
2. Understand the intertwining of physical, organisational and social aspects of school environments			✓✓	✓	✓✓	✓
3. Facilitate the exploration of ideas and possibilities	✓	✓✓			✓	
4. Appreciate the complex, lengthy process that is change				✓✓	✓	✓✓

- ✓✓ this tool is particularly suitable for school communities focusing on this Principle in light of where they are with their particular change process of design, development and evaluation.
- ✓ this tool can also be useful for school communities focusing on this Principle.

How can these tools be used?

The **School Development Evaluation Tool (SDET)** <https://www.ncl.ac.uk/cored/tools/sdet/> is particularly suitable for use over time within a complex change process. The SDET was originally designed, and published in Icelandic and in English, with six dimensions, or strands, that need to be considered in successful school development. It is intended to support professional discussions among school leaders, teachers and other education practitioners. One of the six strands is focused on the physical learning environment, prompting users to consider how the overall school design and certain named areas enable or hinder teaching and learning. This strand is available on the webpage in all the CoReD partner languages. Initially, practitioners can consider where on the five-point scale they would place their existing spaces and current ways of using, but then discuss practices that the school aspires to put in place. Overtime, the SDET can be used to track progress on these aspirations.





Cartographical Observation <https://www.ncl.ac.uk/cored/tools/cartographic-observation/> is also very suited to tracking change over time. Importantly, it also enables a close focus on exactly how spaces and resources are used by teachers and learners as alterations in arrangement and use of space are attempted. Initial use can help educators

start thinking spatially about their practices by examining parts of their current educational environment and how it is used. The findings can then be used to inform adjustments or changes, then further mapping of the use of this changed space can enable evaluation as well as inspiring more change. The mappings produced on each occasion provide a lasting visual record of the layouts and usage over time, to which participants can refer.

Focusing on the student experience, **Survey on Students' School Spaces (S3S)** <https://www.ncl.ac.uk/cored/tools/school-spaces/> has two stages, which can be timed to fit in with other on-going evaluations of the school's design and use. The two stage process begins with an online survey, which is edited according to school needs, mainly through uploading photos of particular spaces and places. This survey can be administered to whole classes or even the entire student body. The data generated is then used to inform the second stage, where small groups of students visit the spaces and discuss issues raised in the survey. It is equally suited to evaluating student experience of a new setting or to exploring the use of an old building where change is planned, so can be used at any stage of a longer term process of change.

Each tool has a webpage where you can find detailed instructions, and sometimes other resources, in all the languages of CoReD.

S3S - Survey on Students School Spaces

Gostaríamos de saber quais os espaços na tua escola que mais frequentas e como lá te sentes. Importa referir que não existem respostas certas ou erradas, pois queremos apenas saber qual a tua opinião.

A equipa do projecto CoReD agradece desde já a colaboração da escola e da comunidade.

* Required

Espaços exteriores: recreio / entrada da escola

Entrada da escola



Each tool has a webpage where you can find detailed instructions, and sometimes other resources, in all the languages of CoReD.

Case study examples from the CoReD project

Using the SDET to frame staff conversations about change at Vallbacksskolan, Sweden



The school was originally built in 1897. In 2016, the premises were renovated and re-opened as a secondary school for approximately 550 students, aged 12-16 years. The School

Development Evaluation Tool (SDET) was used more recently, in 2021-22, to guide continuing staff discussions and support them to plan possible changes to the design and use of their space. The school staff also used Diamond Ranking to help them reflect on the use of particular spaces in relation to student support and wellbeing.

Using the SDET, staff agreed that overall school design and student workspaces (both at Phase 1 of the SDET) limit what can currently be done. They noted, however, that other material aspects (specifically, the library and the school's ways of using technology) are at Phase 5. This recognition initially led to a conclusion that, "We have done the best with what was there". The staff members went on, though, to consider how small alterations to the space might enable them to develop different uses. In particular, they wondered if additional break-out spaces could be created with glass panelling.

As well as supporting this collaborative planning, the SDET will enable them to keep track of their progress as limited alterations are attempted in the next few years.

Combining Cartographic Observation and S3S to understand use of space in Escola Básica Rainha Santa Isabel, Coimbra, Portugal

Schooling in Portugal is undergoing a period of change, as the central government devolves more responsibility for education to municipalities, and schools are required to provide a more diverse curriculum to a more inclusive student body. Facing these uncertainties, the community of Escola Básica Rainha Santa Isabel, on the outskirts of the historic city of Coimbra, decided to embark on their own change process.

The school faces various specific challenges due to its location, the economic situation of the community it serves and the design of the building, which dates from 1999. Currently it works at maximum capacity, with 533 students on roll, aged 10 to 15 (5th to 9th grade). The premises comprise three blocks surrounded by paving, and the school has agreement from the municipality for some refurbishment. S3S was chosen for use to achieve an inclusive reflection on possible changes, considering interior and exterior spaces across the site. Alongside this tool, Cartographic Observation was undertaken to consider the detail of how classroom space was being used.

Two classes of differing ages answered the S3S online survey during the school year 2019-20. The second stage,

site specific focus groups took place the following year with some of these students, and, again, a mix of ages. Cartographic observation was used the year after that to map the movements of teacher and students within a standard classroom in two contrasting lessons (arts and Portuguese). Thus, over a period of time, a more complete understanding has been developed, with the future design and use of the premises becoming a shared concern of the principal, a number of class teachers and their class groups. The wider school community has been kept updated through assemblies, including an occasion where designs and plans for improvements, particularly to the outside space, were presented and discussed.

Addressing the deficiencies of the building which the investigations have revealed, students have created murals on interior classroom walls that visualise aspects of the subjects studied and the municipality has agreed in principle to the planned changes to the exterior.



Further information – available for free download

Read all about the use of S3S at two schools with very different settings and student bodies in Coimbra, Portugal:

<https://www.mdpi.com/2075-5309/12/4/392> (Coelho, C.; Cordeiro, A.; Alcoforado, L.; Moniz, G.C. Survey on Student School Spaces: An Inclusive Design Tool for a Better School. *Buildings* 2022, 12, 392)

This article discusses how altering school space can enable an extended change process. It draws on the experiences of a primary and a secondary school in the UK attempting curriculum and pedagogical change:

<https://link.springer.com/article/10.1007/s10833-018-9317-4> (Woolner P, Thomas U, Tiplady L. (2018) Structural change from physical foundations: The role of the environment in enacting school change. *Journal of Educational Change*, 19(2), 223-242)

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