Professor Peter Barrett
Author of the Clever Classrooms Report

Top 10 ways to innovate the primary school classroom
Tip 1 – Maximise Daylight
Daylight is good for us. Where you can it should be maximised, but subject of course to avoiding problems with glare. Obstructing the windows with large items of furniture or covering them with pupils’ work is not usually a good idea. Depending on the orientation and size of the windows in your classroom you may need to use blinds, but only as much as you have to. Of course there will be times when artificial light is needed and good quality lighting is important to keep up attention levels.

Tip 2 – Ensure Adequate Ventilation
Again a very basic human requirement – oxygen! An average classroom with thirty children in it will develop poor air quality within 30 minutes if no fresh air is introduced. This is important as poor air makes pupils drowsy; not a good basis for learning. Active use of opening windows is recommended as poor air quality was very commonly encountered.

Tip 3 – Control the Temperature
Hopefully you have a thermostat in the classroom and can control your space to be cool but comfortable. If there are problems of overheating from the sun then external shading is the answer, as internal blinds come too late, after the heat has passed through the glass. Pragmatically though, you may have to use a combination of blinds and ventilation.

Tip 4 – Choose the Right Level Flexibility
A classroom that has defined learning zones, that are suited to the pupils’ stage of development, assists learning. Given the usual blended learning approach to teaching that we saw, this means a range of zones for the more play-based learning of KS1 children and bigger, simpler spaces for KS2 pupils, as the learning becomes more formal. So, do you need more learning options – or maybe fewer?

Tip 5 – Engender Ownership
Having aspects of the classroom that reflect the individual pupils is important - some of their work on the wall, names/pictures on trays and pegs, etc. Also something that maybe they have created together that makes the classroom instantly recognisable – not just a soulless box. This is all supported by good quality, child-centred furniture and equipment. Lots of teachers do these things, and our evidence shows that it really helps.

Tip 6 – Manage the Visual Complexity
A mid-level of visual complexity is to be sought. This is a lot to do with the displays, where you are aiming for a lively feel, without it becoming chaotic. As a rule of thumb, leaving something like 20-50% of the wall space clear is recommended. Of course the basic complexity of the floor plan and ceiling structure is your starting position and should be taken into account.

Tip 7 – Use Colour Carefully
Young children do seem to like bright colours, but for effective learning a combination of quite a calm background colour for the walls with some brighter highlights, say the teaching wall or a feature area, seems best. Then you have to factor in the effect of the furniture and displays etc. So just stand back and judge whether the colour scheme is “shouting at you,” feels really boring and bland or is just right, somewhere in the middle.

Tip 8 – Attack on All Fronts!
The impact on learning of the above actions is spread pretty evenly across all seven areas. So, don’t focus on one or two only, but try to assess and address all of them together. Not easy in a busy world, but once you have taken an initial view it will get easier. A large part of it is increased awareness to what matters – now we have established the evidence.

Tip 9 – Don’t Assume a “Good” School Means a “Good” Classroom
From our study we know that there are typically more and less effective classrooms in the same school. Sometimes it’s to do with the different orientations of classrooms and other times it comes from the different things individual teachers do with their spaces. So you should look at every classroom as an individual case. Design issues at a school level (shared facilities, playgrounds, etc) were not as important from our analysis as the factors at the classroom level – which is, after all, the primary school pupil’s universe.

Tip 10 – Remember to See the Classroom as Another Teaching Tool
All of the above can sound like the type of thing that a building surveyor would go on about. Remember, these are the specific aspects that have been shown to have positive (and, if ignored, potentially negative) impacts on learning. You and your pupils need all the help you can get to enhance learning, so hopefully the physical features of the classroom will now feel more like a set of levers you can pull to positive effect.
Peter Barrett is a Professor in the School of the Built Environment at the University of Salford. He was the first Chartered Building Surveyor to gain a PhD and has since developed research interests in optimising the value and experience of the built environment for users. Previously, Professor Barrett has held prestigious roles, including being President of the UN’s International Council for Research and Innovation in Building and Construction. Over recent years he has been working on this project to understand the link between primary school design and pupils’ learning. This was funded by the Engineering and Physical Sciences Research Council (EPSRC).