A JOURNEY INTO SPACE



How it began

Find out how staff started to recognise the relationship between pedagogy and space.

The Workshops

Teachers looked at how to transform learning activities into design principles.

Educational Outcomes

Reflections on the impact the project has had on the learners and their progress.

HOW IT BEGAN

This ambitious project aimed to explore the relationship between pedagogy and space at Trumpington Park Primary School (TPPS) in Cambridge. It started in 2020 and carried on throughout that year, despite the Covid-19 pandemic. The project was based on a series of workshops specifically developed to take a new pedagogical approach to design developed in conjunction with Murray Hudson and Terry White authors of *Planning Learning Spaces published*. Following the workshops a classroom was redesigned and reconfigured in the first part of 2021 (Phase 1). The physical implementation (Phase 2) began within the new space over the remainder of the academic team.

The first meeting between the Head of Trumpington Park Primary School and the implementation team was in February 2020. The team wanted to explore the articulation between pedagogy and space looking at "real pupils, in real classrooms, in real time". The basic idea was that the team would provide support to the teachers in a process of reflection (led by Terry White), culminating in the selection and provision of new furniture / layouts, driven by the teachers', now explicit, pedagogical imperatives. By this means the objective was to create practical, realistic actions that any school could be inspired by.

TPPS had various positive attributes as a school to study, in that:

- it was accessible (compared with NZ where a pilot had been carried out);
- had spatial flexibility (as it was not a fully populated school yet);
- was representative (in that it was not especially well-resourced and was growing as the new housing estate around it grew);
- had a strong personal relationship with the study team via a former teacher who had recently worked there
- had an appetite for transforming its educational practices (in terms of the Head's attitude, the staff and the School's role as a designated "teaching school" for experimentation within the Trust of which it is a part).

- The study could target Year 4 as this year are not quite so pressured around SATs (Standard Assessment Tests) etc.
- In addition it was possible to keep the teacher who took them in Year 3 involved, sharing the teaching 50:50 with an NQT. In this way there were two teachers involved, both very enthusiastic about the project, but able to bring different experiences and provide different perspectives.

As background, TPPS opened as a new school in 2017 with just 30 pupils, but now has 265 pupils on its roll, 25% of whom carry a pupil premium, 50% are EAL (English as an Additional Language) and a number have Special Educational Needs (SEND). The current Year 3 is the first whole cohort to move through the school. Year 4 was taken in from Christmas in the first year and has grown piecemeal over the first couple of years, but has stabilised now.

The school is built to accommodate three-form entry and is currently a mixture of one, two and three forms per year-group, such that there is still quite a lot of unused space held for the future. The school serves the new housing estate that surrounds it. Pupils can walk to school or are dropped off by parents. There is quite a high churn in those living in the area which is reflected in the school population.

The Head, Mel Shute (MS) and teachers were all passionate about exploring "learning by enquiry" or



project-based work. However, it was hard to escape the pressure of passing tests, despite feeling that the former approach would be more effective in the longer term. So, in a way they knew what they wanted to do, but thought the project could help them work out how to realise it in practice by gaining a better understanding of the possible options open to them via interesting / stimulating examples from elsewhere.

The Year 4 teachers were clear that a certain amount of ambition / experimentation was called for to make the most of this opportunity. The analogy of the grasshopper in a jar was mentioned (which can only jump as high as the lid until it is removed). The risk

was not seen as high as the teachers are there every day and can quickly change direction as impacts are observed. The over-riding sentiment was one of excited expectation, tempered by pragmatic realism.

"THE TEACHERS WERE CLEAR THAT A CERTAIN AMOUNT OF AMBITION AND EXPERIMENTATION WAS NEEDED." 04

⊘ A COVID-SHAPED SPANNER IN THE WORKS

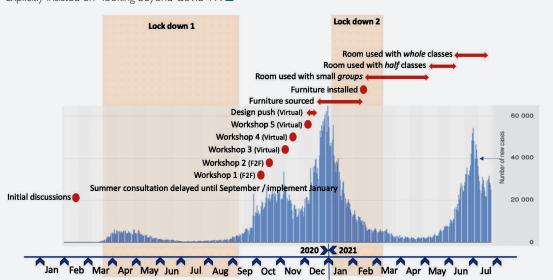
After the initial discussion the aim was to commence the workshops in the Summer Term, with changes to the classroom made ready for the start of the 2020/21 academic year. However, this had not allowed for the arrival of the Covid-19 pandemic. This slowed progress as the school was closed for quite long periods, except for educating the children of key workers.

In the face of this unprecedented disruption, the school decided to keep on with the project, but the start of the consultation process was put back to September 2020, with the fit out of the adapted classroom re-scheduled for January 2021. In the meantime the planned interactive workshops were re-thought to be (mainly) carried out remotely, building on the team's experience of working this way with a NZ school.

Figure 1 gives the overall timeline of the project against the profile of Covid 19 cases in the UK. It is a testament to the commitment of the school staff and the PLS in Practice Team that the initiative continued. The Head explicitly insisted on "looking beyond Covid-19.

"IT WAS TESTAMENT TO THE STAFF AND IMPLEMENTATION TEAM THAT THE INITIATIVE CONTINUED."









O THE WORKSHOPS

The first workshop took place on 7 October 2020 and was then followed by four more at regular intervals of 1-3 weeks, through to 8 December. The workshops took place in the study classroom, which was empty in this period, with Year 4 being taught in the space next door. This added immediacy to the discussions and meant that material could be left out from session to session. Each workshop involved the Head, the two Year 4 teachers and two members of the team

The first two workshops took place face(mask)-to-face(mask), but after that, owing to Covid-restrictions, the meetings were run virtually via Zoom, with just the teachers in the classroom and the facilitators sending material ahead and leading the sessions remotely. The workshops followed the "Planning Learning Spaces in Practice Design Framework" covering the six areas of; pedagogy, curriculum experience, organisation of learning, leadership of learning, community participation and research and data". Whilst maintaining this breadth of consideration, the focus moved from: Values / Ethos and current practice, to a consideration of next practice, and then; to the design of appropriate spaces. The workshop progression is summarised in Table 1.

06

Table 1: Summary of Workshop Consultation Process

orkshop	Focus / activity	Outcome
D	After an initial briefing, the teachers engaged in an exercise where extracts taken from the TPPS Aim / Ethos were manipulated on hexagonal cards to cluster around the key PLS key themes. The connections and any gaps revealed were discussed and it was immediately felt that evidence about "community" engagement was under-represented.	It was agreed that this workshop had got everyone thinking and that the teachers would "fiddle" with the hexagon patterns and <i>reassess the vision</i> statement, maybe emphasising the "child-centred" dimension.
2	After some scene setting and exemplars, the teachers were asked to take their hexagons from the previous session and use these as a stimuli as to where the school had existing "challenges" and "strengths", together with possible "next practices". The focus was still very much on an explicit discussion of pedagogical issues and learning practices. The final output was summarized in tables against the key PLSiP key themes.	This session successfully provided a pivot from current to "next" (or future) practice. The Headteacher commented that the exercise was "making dialogue around something meaningful", rather than something abstract.
3*	This was a very frenetic workshop. The teachers were each asked to pick one "next practice statement" from the last workshop and then say what it would look like in practical / behavioral terms around the key PLS key themes. Having really imagined their way into the practicalities of their desired next practices, they were then asked to select from forty-three numbered images of possible elements of a classroom, things they would like to see in their classroom, adjacent spaces or in the school as a whole. After discussion and probing on reasons and connections to pedagogy a final consensus list of images was identified.	This session moved matters strongly into the <i>physical set up</i> of the planned new classroom, but all still closely connected to teaching practice and the school's ethos. At this stage the elements are still atomized, but the teachers were clearly energized and looking forward to beginning to develop the new classroom design.
4+	The exercise was now to look back and identify priority "next practices" from the meeting before last, and to consider them against eleven images of highlighted classroom elements from the last workshop. The linkages between the practices and elements were discussed in turn, stressing anticipated practical behaviours. The discussion then dug deeper by focusing on the variety of demands that might be faced in delivering different subjects, such as Maths, English and Science. Group sizes were discussed. Usually it is 4-6, but three seems perfect.	This workshop had tested out the linkage between putative desirable classroom elements and their impact on "next practices" across a range of subjects. The outcome was a list of the main types of FF&E chosen, plus further options that would be considered as enhancements.
5	The focus in this workshop turned immediately to a rough classroom layout design sent by teachers that morning (see Figure 2). They introduced their ideas, which led to questioning back and forth between the teachers and facilitators over a wide range of issues. After this rapid development from a rough sketch to quite detailed initial ideas about furniture, the focus pulled out to take a perspective driven by teaching practice. The teachers were asked	Based on the shared understanding that had crystallized from these discussions, the facilitators suggested an acceleration of the process. They would work out a proposed plan over the next few days and send it to the school for their reaction with

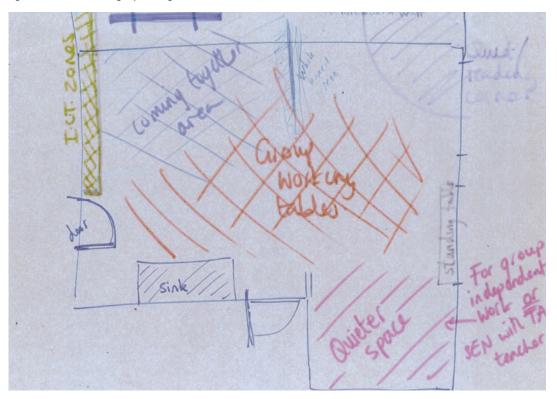
[•] It had been intended to include a wider range of staff from this point, but Covid-19 restrictions precluded this. After Workshop 3 it was agreed to leave material up in the room for other teachers and the pupils to see, and maybe comment on. + It was stressed by the facilitators in Workshop 4 that it was "not a problem if what was wanted was not there, as we can create whatever you need". This palpably raised expectations, but also kept the discussions un-constrained at this stage.

the dynamics of the use of the space.

to describe typical lessons, which surfaced various aspects driven by an aim of installing the new furniture

on 4 January 2021.

Figure 2: Teachers' initial rough layout design



⊘ EXPANDED EXPECTATIONS



Reflecting on the consultation phase the Headteacher concluded that "the process is strong", it helps link back to aims and values, and had created strong engagement. The Year 4 teachers remarked how they were now reflecting much more actively on how the School values were reflected in their teaching practice. They were already "looking for and finding ways to change behaviour in their existing classroom setting". The process had expanded their expectations as to what may be possible. They were excited to get going, but it was also a bit scary as they felt they "have to succeed" so they can showcase the child-led, exploratory approach they believe in, to the rest of the school and Trust.

OUT THE SPACE

After Workshop 5, a first design sketch was sent by the team to the teachers the next day. This encapsulated the main issues discussed regarding the arrangement of zones and the broad types of furniture that could be used. At this stage the furniture choices were being expressed in general terms, but the way they added up to the whole classroom provision was becoming apparent. The Year 4 teachers kept with this rapid process and fed back their comments the next day.

The facilitators then worked together to take this feedback into account and to think about specific furniture to make it a reality. In doing this they were able to look back at the outputs of Workshop 4 where individual putative items of furniture were linked to "next practices". There was also some communication with the school on measurements and sizing and ideas.

By mid-December (the end of the Autumn Term and just a week after Workshop 5) a range of furniture choices had been made. At about this stage, despite an impressive rate of design development, it was decided that it was not feasible to source and instal the new furniture over the Christmas break and the target for this was pushed back to mid-January.

Next a full equipment list was developed that was then used as a basis for working to source the items with various manufacturers. Over the course of January the Covid-19 situation worsened dramatically in the UK, but despite this the equipment was successfully sourced and on 15 February 2021 was delivered to the school. The facilitators spent the next day experimenting with and arranging the furniture.

This marked the end of a major phase of the project. Built solidly on extensive discussion of the pedagogical aspirations of the teachers, a redesign of the classroom had been developed and agreed, and now it had been realised as a practical reality. Initial images of the new classroom are given in Figure 3.







Figure 3: Initial images of the newly equipped classroom



"... REALLY LIKE THE DESIGN AND THINK IT WILL WORK WELL FOR OUR AIMS OF INCREASING COLLABORATION AND ENQUIRY... PARTICULARLY LIKE THE ICT BENCH AND STALLS. THE LARGER GROUP TABLE AND THE WAY AREAS ARE SECTIONED OFF AT THE BACK OF THE ROOM ... ALSO LIKE THE FLEXIBILITY OF THE SPACE IN THE MIDDLE OF THE ROOM AND CAN SEE HOW THIS CAN CHANGE FOR **DIFFERENT LESSONS AND ACTIVITIES.**"

The Year 4 teachers' reaction to the newly fitted out space was positive. The impression was that it seemed "big and open and fresh". However, in some ways the changes were "less dramatic" when compared with some of the more radical images shown in the consultation process. That said the teachers agreed they had got what they asked for and, actually, went on to list a lot of new aspects that they were:

- excited to explore, such as: the variety in seating options, including standing tables, soft areas and the moveable triangular tables; the re-purposing of the recess as a separate study zone; the two whiteboards on the long wall; plus the "discovery" of Wi-Fi in the room so the laptop station can be moved and still control the whiteboard.
- not so sure about, such as: the writeable / wipeable tables, the capacity of the storage lockers outside of the classroom and lack of display location for topic books. ■

MOVING IN

With the new classroom fitted out, Year 4 were still actually in their existing classroom next door, working under quite severe lockdown limitations. Because of this it was not possible to move the whole class into the new space as the higher level of unconstrained interaction would be too much. So, the decision was taken to make the most of this time by using the new space with small groups. This carried on for two and a half months.

The approach consolidated into a deliberate process where the teachers rotated the groups involved with a view to all of the children having a good level of familiarisation with the new classroom. Further, as the use of groups was planned, diverse mini-experiments were designed with "expected outcomes" compared with actual experience. As examples:

- Designing in children choosing appropriate different settings for different stages of classroom exercise success, mixing group working and individual efforts
- Actively encouraging children to use whiteboards to do working out success, but also found it meant pupils helped each other and teacher could circulate freely and intervene as needed.
- However, found some problems with competition for high table teachers working on a solution.
- Children with SEND working in "cubby" at the same time as rest of class success as any associated "noise" contained.
- Leaving children to select where to sit to access level of support needed success but also found some children in grey area found less binary and so felt encouraged to try alone.

Then for about another month, up to the end of the first week of June, the new space was used with half-classes as things moved towards full occupation, which then continued for the remaining weeks until the end of the 2020/21 academic year.

The teachers' initial observations of the children were that they were very excited to be in the new space and that changes in behaviour would have to be made bit by bit, but that the threat of *not* being able to come to

"THE TEACHERS LOVED THE MOVEABLE PEDESTAL, AND THE TRIANGULAR TABLES WERE WORKING REALLY WELL."

the room seemed enough to drive better behaviour. The teachers' sensed that the pupils seem to know they are meant to work differently as the space feels more practical and there is more freedom to move around. This phased introduction was driven by circumstances and the parallel availability of the old and new classrooms, but was actually found to be very beneficial to the adaptation of both teachers and pupils to the opportunities of the new room.

Interestingly, the shift to full occupation did prove a challenge, despite and to some extent because of all the preparatory use. This was because suddenly there were no free spaces. Everyone had a place, as insisted upon by the teachers in the design phase, but it took some time to adapt to the notion of children moving around more freely when it depended on others moving too. However, after a couple of weeks this seemed to settle down into a fairly free flow pattern of use, albeit with the teachers more actively encouraging mixing to avoid the children simply gravitating towards fixed friendship groups.

Once the spaces had been in full occupation for some weeks the teachers were able to objectively reflect and:

■ found the new layout more spacious than before with the "cubby" providing a really valuable space for children with SEND and those moving ahead. They loved the teachers' moveable pedestal, and the triangular tables were working really well — especially





- the writeable surface (despite their initial worries), which actively supported experimentation, group sharing and immediate teacher interaction when needed.
- They did miss the possibility of "carpet time" owing to limited space and the high table was in great demand and could become a bit of a "messing around" table. Some obscured sight lines and the control of behaviour could be slightly problematic at times, but adaptations were being made to address this.
- In terms of learning activities, it was lovely to see children helping and learning from each other. The class activities were explicitly much more rooted in the children's ideas "taking a risk in a way, but better thinking, even if the work doesn't look as polished".





The pupils' perspective was very positive about the changes – "more exciting and colourful", although they had nuanced views about pretty much every element. They did like the variety and choice – soft / hard, high / low, together / apart. The implication is that they completely understood that each aspect is suited to different activities.

So, they liked the choice of where and who to sit with and found the cubby a "peaceful" place to write stories or work alone when they had finished the set task. At a more general level, they felt they could feel "more free" in the new space where even if they "put lots of ideas in the room it still doesn't feel small".

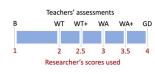
They really liked the comfort of the new chairs and, especially the new triangular desks which they could just move back out of a group if they needed some space and of course could be used to make notes "so don't forget things". The classroom storage outside of the classroom was very popular as they were big enough for jumpers etc and meant they "can't lose anything".



MAKING AN IMPACT

The workshops has successfully led, through a reflective consultation phase, to the re-design and fitting out of the Year 4 classroom. This was explicitly to support a shift in teaching practice to bring it more strongly into line with the School's declared ethos. In addition to the interviews to gain multiple stakeholders' views, reported at points above, repeated independent observations and analyses of the pupils' progress were made. The initiative had much wider aspirations than academic progress alone, but looking at this first provides an interesting perspective.

The pupils in this school are assessed as to their level of working in reading, writing and maths at least three



times a year (start, middle and end). For these they are judged against the national norms expected for the academic year they are in. So, if the pupil is working at that norm they are designated WA. To allow some simple calculations we created a scale scored this 3. Similarly for Below (B \sim I), Working Towards (WT \sim 2), Working Towards Plus (WT+ \sim 2.5), WA (\sim 3), Working At Plus (WA+ \sim 3.5) and Greater Depth (GD \sim 4).

In broad terms, for a profile for the year it can be anticipated that, on average, children in a class will be WA by the end of the year, but are likely to start well below this as they are confronted with the higher requirement for the new year as it starts.

For the year being studied here things have been complicated by lockdowns and restrictions even when pupils were able to be in the school. So, to try to get some impression of the impacts of lockdowns, as opposed to changes to the pedagogy and classroom, comparison, data for the lower school year (Yr 3) was also obtained. Taking this and the focal Year 4 data, and by averaging the scores for each class and across the three subjects together, crude overall measures of the academic progress of the classes can be constructed. These are given in Figure 4 for the 20/21 year, plus the year before as an extra dimension of comparison.

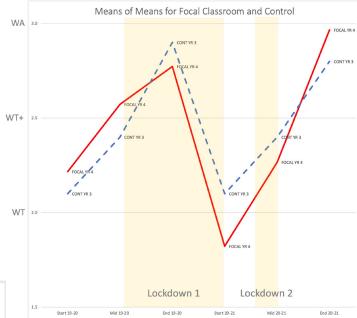


Figure 4: Mean of classes and means of subjects for this and last year.

It can be seen that the control class (blue dashed) followed a consistent profile for both years. The focal class (Yr 4) dipped a bit lower at the end of last year (2019/20), seemingly more impacted by the first lockdown. This could be owing to more Year 3 children coming in to school during lockdown than Year 4 and also slightly higher numbers of EAL (English as an Additional Language) and Pupil Premium children in the Year 4 cohort.

At the end of the first lockdown and the start of 2020/21 Year 4 had declined relatively still further. However, as this academic year played out, they made good progress, strengthening markedly in the latter half, so that by the end of the year they were (on average) well clear of the previous year's end point. It is impossible to be categorical as to whether this indicates the positive impact of the new classroom layout / pedagogy, but, in the context of the complementary observations and interviews carried out, it does seem likely that they had a positive impact.

O DIFFERENT REACTIONS TO THE SPACE

For all that, there were a number of individual cases that seemed to jump out and these were highlighted to the teachers and their views sought.

"PROGRESS STRENGTHENED MARKEDLY IN THE LATTER PART OF THE YEAR."

In order to dig further into the impacts on individual children in the focal class, the class average was deducted from the individual pupils' performances, averaged across the three subjects. This "net" progress removed the expected general rise across the class as a whole. This data was then examined for each of the pupils who had made significantly more or less progress. In doing this the nature of the scale, that caps the highest level of performance (GD) had to be considered as, owing to this, these pupils appear to go backwards compared with the rising class average. Equally some of the pupils with SEND may progress, but will still be rated at the bottom of this scale (B), so will also seem to be progressing less.



For the small group of children who have progressed very strongly it would seem that, in the new classroom dynamic, they have had increased opportunities to work with the "GD" children and benefited a lot from the quality of the discussions and support they provide. There has also been a noticeable increase in their willingness to engage in discussion and to follow right through in tests, which had been a problem.

- For another group that has done well, but not quite so markedly, the explanation seems to be that they are generally sociable personalities and now, instead of being easily distracted and disruptive, the increased discussion, group work and collaboration have helped them.
- One of the SEN children is still at the "B" level, but the teacher has noted a big increase in their involvement in the whole class and in accessing more Year 4 learning than ever before.
- Progress for a few children has, in the teachers' view been "perhaps a little disappointing" and in these cases it seems to reflect their strong inclination to work alone and reticence in discussion, and in one case a tendency to now work more closely with a child at the B level.

Overall, the picture is of lots of individual children responding to the new classroom and pedagogy in a variety of ways as would be expected. In almost all cases the increased flexibility and associated choice presented has been a positive opportunity that has resulted in a stronger overall class performance. As the teachers observed in some cases the transition to the new approach is taking longer, but they can see "green shoots".

One dimension behind the above discussion is the ability of the pupils to concentrate and be engaged in the work they are doing. There was some question as to whether the less structured classroom environment would lead to reduced concentration. To get some feel for this the Leuven "involvement" scale was used to assess this class (Yr 4) last year and after the changes this year, together with some "control" observations of other year groups, this year and last. In terms of this measure, it can be said that there is very little variation in the levels of involvement observed either for the focal class or the control groups. It can be said that, when the whole class is being briefed from the front, if it goes on too long, the attention of those at the periphery often begins to wane.



A STRONGER OVERALL

CLASS PERFORMANCE."



WATCHING PUPILS USE THE SPACE

The last element of assessing the impact of the process was two extended sessions of passive observation of the focal classroom in action and of a comparison year (Yr I) elsewhere in the school. It was immediately clear in the focal classroom that there was very active group work taking place and that this drew in initially distracted children.

Concentration was high throughout. The groups flexed quite a bit, although there was a tendency for groups to split on gender lines. Some children were clearly more inclined to "roam" and did so. Equally the teachers seldom stood at the front, and even when they were addressing the whole class did it from different places in the classroom. The write-on tables were used actively and collaboratively by all, including the teachers (and other pupils) in giving support. The "cubby" was used for one group as their base and the bean bags were explicitly used as, and seen as, a reward for what the teacher adjudged to be individuals who had done particularly well.

The Year I class observed was obviously not a direct comparison, but raised some interesting issues by way of contrast. The classroom felt quite dark and was quite cramped, which made moving around difficult. For all that there was quite a bit of movement of children driven by, either those who had quickly finished the class task set and wanted "extension" work, or, conversely, those who were struggling and wanted assistance. Either of these categories of child initially put up their hand, but then as the teacher started to deal with these exceptions, others got impatient and started to trail round after the teacher.







⊘ A PROFOUND DIFFERENCE

This combination of practical and attitudinal changes seems to have made a profound difference, so the teachers were asked if this was reflected in any differences to how they planned their lessons. Only small adjustments have been made, but they, broadly, devolve more responsibility to the children and suggest more collaborative options for how the task can be addressed, for example:

"THE PUPILS WILL HOPEFULLY BECOME EVER MORE INDEPENDENT AND CREATIVE IN THEIR APPROACH TO LEARNING."

- Consistently encouraging them to write notes on the tables and discuss things with their peers ahead of any more general discussion.
- At the same time they allow pupils the choice to follow the traditional approach if they want to. So, for example, with a reading / discussion task, they can do it themselves and choose who to discuss it with, maybe recording their thoughts on a writeable table, or they could choose to sit with the teacher and listen to the book being read and discuss it in this group.
- On extension work, individual copies are not often provided now, but are instead pinned up in the "cubby" or a whiteboard and anyone who is ready goes there and is encouraged to work together with others at the same stage. ■

♦ A SUCCESS STORY TO BUILD ON



Using the framework developed using a specific pedagogical approach has without much a doubt led to a transformation in the appearance of the Year 4 classroom, but much more importantly it is underpinned by a re-evaluation of the pedagogy and teaching practice to more directly align with the declared ethos of the school. These changes are well thought through and thoroughly owned by the teachers involved. There is well triangulated evidence that the impacts of the initiative are very positive from the perspective of the pupils and of the staff. This has all been achieved against the very demanding backdrop of the Covid-19 pandemic, which makes it all the more impressive.

For all that, this is a start. There is no doubt that through their evident professionalism the Year 4 teachers will continue to evolve and improve their practices. The pupils will hopefully become ever more independent and creative in their approach to learning. It can be hoped that they will do well academically, but that they will also acquire important soft skills in the process. For a very few pupils, for whom the less structured approach is a problem owing to their personalities, it may be that they will change over time, or it could be that adaptations in how the classroom works will be invented. This is an area to be watched with interest.

The major opportunity that now faces the school, and Trust more broadly, is how they can build on the investment in this one class and learn from the experience to the benefit of the whole school. So far this has been hampered by the Covid-19 restrictions and the associated pressures. It does not mean to simply replicate the process multiple times, but rather to reflect on the lessons learnt and to work out how they can be adapted to suit different age groups and other teachers in a way that is within the capacity of the school in terms of human resource and finances.

Lastly, another dimension that could reward more attention, now there is some prospect of a version of

normality returning, is to fully address the basics of the learning environment in terms of its healthiness, level of stimulation and individualisation for each child. The last of these has been swept up in the PLS changes to some extent, and the air quality has been very much in focus owing to Covid, but the level of stimulation and other aspects such as glare and over-heating could be assessed and addressed.

Overall, this is a success story that can be the basis for positive future developments. Please see more on the workshops and the pedagogical approach at

www.planninglearningspaces.com.

Professor Peter Barrett 02 September 2021.

Peter is an emeritus professor of property and construction management. His work on the impact of the value of the built environment within society led him to study the connection between the physical design of schools and pupils' academic progress. This focus led him to becoming an Honorary Research Fellow in the Department of Education at Oxford University. As well as holding many strategy/policy roles nationally and internationally, he is past President of the UN-established International Council for Research and Innovation in Building and Construction. He now works as an independent researcher in the school design arena, for clients in the UK and abroad.

THE CAMBRIDGE CENTRE FOR LEARNING SPACES INNOVATION

Is a worldwide forum to support and advance excellence, innovation and wellbeing in school design. The centre was the base for this academic study undertaken by Professor Peter Barrett.



LEARNING SPACES in No Votion
CAMBRIDGE

Supported by

