Inspiring spaces: creating creative classrooms

Dr Catherine Burke shows how creative learning spaces can open up the possibility of thinking differently and can stimulate radically different approaches to teaching and learning.

What is an inspirational space for teaching and learning? How might a young person’s view about learning environments differ from an adult’s view? Can we learn from the young by appreciating the creativity through which they manipulate materials in non-school contexts and from listening to their voices and respecting their vision, can we ensure that the spaces we create support their engagement with learning and school?

Historical impact

Many of our school buildings were built at a time when ideas about teaching and learning, and the role of schools in society, were very different. Many school spaces were organised according to strict gender division. Door entrances for boys and girls were placed at separate ends of school buildings; schoolyards were designed with gender walls built to divide the boys from the girls. Classrooms were designed to contain a certain number of pupils, to be instructed all at once, by one teacher. These historical aspects of schooling have also given us historically located design decisions, reflecting evident truths of the time. The legacy of these decisions can mean it is sometimes difficult to try to make appropriate design decisions fit for learning and teaching in the 21st century.

We may look back at the time we live in now and see it as the last period of time when knowledge was neatly divided into curriculum subjects, located spatially in school buildings. We may also recognise this as a time when school spaces began to be understood as going far beyond the school walls, incorporating other public spaces for learning and producing new knowledge, including museums, galleries and labs. We will also recognise a return to child-centredness in a new guise, currently known as personalised learning, and will note the ways that new technologies, including handheld devices, began to reshape the learning experience and create new experiences around time and space in the relationship between teachers and learners.

Preconditions of creative learning environments

For learning and teaching spaces to be creative, the NACCCE argues that adults and young people equally need to be supported by physical environments that provide them with the:

- ability to formulate new problems, rather than depending on others to define them
- ability to transfer what they learn across different contexts
- ability to recognise that learning is an ongoing, incremental process and involves making mistakes and learning from failure
- capacity to focus your attention in pursuit of a goal.

What students want

There would also be many comfortable and informal meeting places for creative interaction in small groups on key issues, not just on the syllabus but also wider issues occurring locally and elsewhere. (Jonathan, age 17, Manchester)

Art would be a huge part of education. The children would be able to do huge murals, statues, and so on, to be put around the school. This will make the children feel that they made part of the school. (Oliver, age 12, Taunton)

Students learn concepts by doing – seeing, smelling, hearing, touching and tasting as well as thinking, either creatively or logically ... so that learning is meaningful and practical. (Oliver, age 13, Loughborough)

Teachers should not be tied down by the tight restrictions the curriculum presents. They should be able to plan a lesson in the way they wish and develop it into a worthwhile life lesson; maybe the pupils will treasure it and apply it within their lives. Captivation of the imagination guarantees a lesson will stay with a person and not be forgotten the moment the classroom is vacated. (Angela, age 15, Croydon)

My ideal school would have normal lessons but one lesson a week would be given up to relaxing and unwinding. I think this would calm down those students who are troubled because of the life they lead. (Elizabeth, Upper Secondary, Suffolk)

(Source: Burke and Grosvenor, 2003)

We may look back at the time we live in now and see it as the last period of time when knowledge was neatly divided into curriculum subjects, located spatially in school buildings.

Students’ views on school space

Is life divided up into sections? No, I say.
Then why have subjects at school?
Teach living at school,
And living means understanding,
And understanding is all.

The school we’d like is:
- A beautiful school
- A comfortable school
- A safe school
- A listening school
- A flexible school
- A school without walls
- A school for everybody

(Burke and Grosvenor, 2003)

Strategies to encourage imagination

- Dialogue – this implies time and spaces designed to support this
- Dreaming time – rooms set aside for dreaming
- Experiment
- Storytelling
- Going beyond the school walls, making connections with the neighbourhood and community
- Allowing students to use their local landscape to identify problems and from there to develop imaginative solutions
If creativity is difficult to define, one certain thing is that it is possible to create the conditions in which creativity is more likely to thrive and the material and built environment is a key factor.

Examples of creative spaces

Campfire space
Campfire is a metaphor for creating a space where you would expect to learn through narratives from experts using story or song.

Cave space
Cave space is where you might find places for individual study, reflection, quiet reading and creative flow. Libraries are very much an adult view of silent places for study, often felt to be uninspiring to young people. Cave spaces are spaces of enclosure where one or two young people might meet and an adult might be able to discuss, read, think, break away (see: Nair and Randall, 2005).

Such spaces have been envisaged by young people as learning pods where, through technology, a zone of learning possibilities is developed where they can access information, communicate to others, arrange the space to enhance comfort and build their identity. Schools that have developed real examples of these spaces are operating successfully today, such as the Zoo School in Minnesota (see: www.district196.org/ses), which organises the whole curriculum through problem-based learning. Here, each young person has their own workstation, known as the building blocks of the school. The workstations look like office cubicles, with personal computers, spaces for storage and books and other study accessories. But the most interesting workstation artefacts are the ones that tell about the person whose workstation it is, including snapshots, drawings, and artefacts that speak of personal identity and belonging.

Such arrangements are not new but continue to re-emerge as design solutions as schools try to encourage and allow for integrated curriculum delivery, clustering classrooms around shared facilities.

The school I’d like: children and young people’s reflections on an education for the 21st century (Burke and Grosvenor, 2003) provided insights into what students want from their learning environment. Listening to the views of the pupils themselves can provide invaluable knowledge. This can be used to improve spaces so that they enhance learning and wellbeing. Student comfort, security, stimulation and ownership are linked to improvements in achievement. For more of the students’ comments, see the box at the top of page 35.

The traditional rectangular classroom design and the formal arrangement of instruction class-based teaching does not suggest the best conditions for creativity to flourish, for the personal agendas of learners to be supported or for the full potential of computer-supported learning to be realised. The facilities required may resemble more the traditional primary school and may include quiet areas for thinking and design; areas for wet or dirty activities such as art and technology; a computer pod and spaces for independent learning. Classrooms need not be square or rectangular, but may be designed to allow for diverse activities to be contained within spaces: Z- or L-shaped rooms have been popular in the past, according to the report of the new secondary schools consultation project, in New Zealand (Sutton et al., 2001). (See also the article by Jane McGregor on pages 16–19.)

A total of 65% of UK schoolchildren surveyed by the Independent, in September 2006, complained of too little space and cramped learning conditions. Young people need space to be creative and this is not always easy to provide in schools that are designed on the classroom/corridor model. So the layout of school itself is a mitigating factor. The curriculum being organised into short periods is one of the most powerful factors that act against creativity.

Teachers are positioned to instruct rather than to facilitate. Allowing pupils autonomy in spaces in schools can feel threatening to teachers who fear losing control.

One example of a space that has been successfully carved out of existing school structures and expectations is the National Endowment for Science, Technology and the Arts (NESTA) Room 13 Learning Programme (see: www.room13scotland.com/introduction.html).

Spaces that are inspirational and support creativity can be achieved through redesigning and reorganising existing space, especially if we critically review the necessity of classrooms as the principal building blocks of schools.

What is creativity?
Before we consider further how to create learning environments where creativity can flourish, we need to be clear exactly what we mean by creativity. The meaning of creativity is difficult to pin down but several definitions of creativity in relation to envisaging future learning environments have been suggested.

Tom Bentley, director of independent think-tank Demos, suggested, in a 2002 keynote speech at the National College for School Leadership (NCSL), that creativity is “the application of knowledge and skills, in new ways, to achieve valued outcomes” (Bentley, 2002).

The report of the National Advisory Committee on Creative and Cultural Education (NACCE), All our futures (DfES, 1999), emphasised the extent to which creativity involves the exercise of imagination. Very often, creative learning involves finding ways to generate a novel perspective on an existing question or practice and, through the process of rethinking or revisioning, coming to understand it more deeply. It is often achieved through bringing together existing ideas and structures in new relationships. Creativity requires operating the imagination; the optimal conditions for that to happen will differ according to each individual.

If creativity is enhanced by structures, spaces and situations that support students to approach their whole curriculum in a way that makes connections across it, it enables their ability to apply knowledge in flexible ways and increases their capacity to make use of other, informal, learning resources. This implies a serious challenge to the traditional configurations of school space and time. It implies the notion of the school as no longer containing all necessary knowledge and skills but becoming a space in which knowledge can be developed and made new. Regarding the school space as the centre of a complex network of potential interactions between young people, their teachers and the wider community (as meaningful links are made with city, town or village as a learning resource) requires a change in thinking about the design of the
curriculum, classroom and learning. Such new thinking challenges the subdivision of buildings into departmental spaces with subject specialisms located only in specific spaces. A good example of an initiative supporting the construction of spaces that crossed traditional curriculum divides was the Creative Spaces project funded by NESTA and managed by Cape UK (see: www.capeuk.org/view.php?id=889).

Creativity in learning and teaching does not happen only in spaces related to the arts but is possible across the entire range of the current definition of curriculum. Potentially, it is central to the development of whole new areas of curriculum, such as innovation education, which is a subject in the national curriculum of Iceland (see: www.innoed.is), where schools make time and space for problem-based project work that moves through the process of defining the issue, modelling the solution and creating a marketable product. If creativity is difficult to define, one certain thing is that it is possible to create the conditions in which creativity is more likely to thrive and the material and built environment is a key factor.

Tom Bentley comments in his NCSL speech:  
Creative learners are people who understand the potential to learn from any and all of their encounters with the world, as well as from the formal, taught curriculum they access. (Bentley, 2002)

They will require less exposure to a linear mechanistic approach to learning and more exposure to a web of possibilities and perspectives. In this sense, we might think of space in the curriculum as applying to mental space, physical space, and virtual space, through the design of the timetable. The NACCE provides four characteristics of creative processes:

- they involve thinking or behaving imaginatively
- this imaginative activity is purposeful – that is, it is directed to achieve an objective
- these processes must generate something original
- the outcome must be of value in relation to the objective.

Creating spaces for creativity

- Change the physical environment – you can make a massive difference by providing a place where people want to be and breaking the mould of what a school should look like.
- Remove or reduce elements of the classroom in school spaces. Diversify the learning environments and reduce reliance on the classroom and groupings of one teacher to 30 students.
- Communicate key messages through your school environment, for example, in celebrating and describing processes of creative learning in central areas and classrooms.
- An NCSL seminar, ‘Leading the creative school’ (Williams, 2002), suggests that you decide together (young people, teaching staff and wider communities) what an environment to support creative learning looks like, for example, in celebrating pupil voice, in illustrating a range of views and perspectives, in showcasing creative artefacts. Then work progressively to make this a reality. One way of doing this is through exploring existing environments, either using the internet or site visits.
- Set aside one classroom in the school and develop it as a creative space. Start with an empty space and ‘dress’ the space collaboratively. Make sure that every decision to bring something in or alter the interior is justified by an argument related to enhancing the space for creativity.
- Use what is given in creative ways. For example, walls can become more than spaces for display; create walls that can be changed easily through projections or other types of manipulations, such as using fabrics or easily removable and changeable materials.
- Think about smells, sounds, music, touch, light and taste. Allow pupils a say in applying these in spaces. For example, allow research and experimentation with different types of music, lighting, colours led by the students themselves.
- Model creativity. Teachers and other adult members of staff or the wider community might be given time and space to show an otherwise hidden side to themselves, revealing how creativity can be interpreted in a wide variety of ways.
- Allow pupils some ownership, for example in giving them some say in how rooms for learning are furnished.
- Think about how you use curriculum time – ask whether what you do matches the creative learning designs and processes you value. Does a lesson need to be 50 minutes or can it last a week?
- Allocate time to being more adventurous with learning. This might be a day or a week per term to help staff ‘dare to be different’.
- From time to time, set up weekly projects across the whole school with a focus on creative learning and use this to experiment with redesigning a learning space.
- Utilise corridors and social spaces for learning. Corridors can be made more than just spaces of transit through imaginative lighting and using colour. Once again, utilise pupils’ imaginative ideas about transforming such spaces.
- Consider furniture. Is it needed? What is it useful for?

Innovation is part of creativity. It can be taught in schools and has a key role to play in supporting entrepreneurship, through its roots in problem-solving and meeting needs. It can be harnessed to cross-curricular work with young people as actors able to meet the ecological and social challenges of the new century.

Innovation and inventiveness rely on the ability to observe carefully, consider critically and to articulate problems and solutions accurately. As such, a key factor is imagination. Imagination is not well understood but young people are well placed to imagine possible solutions to real-world problems.

If the facility for imagination is present, how can it best be released? See the box bottom left on page 35 on strategies for encouraging imagination. ICT can be utilised to support any of these.

Identifying creative behaviour

The Qualifications and Curriculum Authority (QCA) has suggested that spaces and relationships can be designed to enable pupils to connect areas of experience in innovative imaginative ways.

Spaces that enable pupils to do this should imply relationships between learners, teachers and the curriculum that promote:

- questioning and challenging
- making connections and seeing relationships
- envisaging what might be
- playing with ideas and keeping options open
- representing ideas in a variety of ways.

Not all spaces in a school can or should always allow for all of these but the school should work towards design solutions that contain as many of these as possible.

Spaces that support questioning and challenging behaviour might include the possibilities for one-to-one conversation, collaborative group dialogue, and communication (in real time or asynchronous time, for example, through email or interactive blogs).

Spaces designed to suggest connections and recognition of relationships across the traditional subjects of...
Reorganising curriculum to stimulate creativity

- Try to develop elements of the curriculum that are problem based so that the evidence that is provided is never defined. This promotes a more creative approach to gathering evidence. For example, have pupils make an audit of needs in school, neighbourhood or community and allow time and space to develop and model solutions to these problems. Have the results of the project available both inside and outside of the school to emphasise the relevance and significance of the results.
- Try to organise spaces and times for cross-curricular activities; for example, maths and music, biology and art, history and drama.
- Provide regular access to creative tools, such as digital cameras and sound manipulation software.
- Experiment with parts of the school community to develop a new curriculum through enquiry (an example is Enquiring Minds, a Futurelab project that is currently operating in secondary schools in the South West – see: www.enquiringminds.org.uk). Here, parts of the school week are given over to the development of a new curriculum, based on the knowledge that the young people bring to school and what they wish to know more about.
- Try to develop innovation in assessment. Allowing evidence of learning in as wide a range of formats as possible is difficult to assess, but its development is one of the keys to encouraging creativity. For example, you might decide to introduce elements of peer assessment to engage students in the process.

the curriculum could mean that maths is sometimes taught in an art studio using materials and equipment usually found there; music might be taught in a science lab. Such relocations and attention to the traditional associations between subject knowledge and space within schools can help to forge creative connections between and across the curriculum and can help to promote new, exciting and engaging views on the subject for teachers and young people.

Spaces that help teachers and learners envisage what might be could be designated thinking spaces, perhaps carved out of existing spaces that are underused in school buildings, relabelled as think-tanks or futures rooms. One junior school in London used the Creativity Action Research Awards (CARA) in 2005 as a way to investigate ways of creating learning environments to inspire pupil creativity and promote conditions for learning through meditation, relaxation and thinking skills. They developed a ‘creativity’ room and a ‘meditation’ room and examined the impact of the creation and use of these spaces on pupils. The creative room was developed from part of a prefabricated building and has hosted creative activities around writing, film, ICT and drama (CARA project, Latchmere Junior School, Kingston-upon-Thames – see CARA, 2005a). The results of the research (see the box at the top of page 36) showed evidence of the positive impact of the project.

There is some evidence that such experimentation with spaces can also be useful for older pupils in secondary school contexts. Examples from the CARA project in 2005 included a partnership at Belper School where students collaborated with practising architects to design a creative space in the school reception (see: CARA, 2005b).

It is important that, in such spaces, teachers and young people are understood to be equals as potential envisagers. Materials and equipment in these spaces should be carefully chosen by all to support the process of thinking, imagining, designing, inventing and should not be predetermined by teachers.

Spaces that allow for playing with ideas, keeping options open and representing ideas in a variety of ways could be spaces that encourage drama, storytelling, photography, film, blogging and exhibiting. The traditional design of schools – through the ordering of time, space and assessment – suggests completion and finishing of work. Spaces that support creativity need also to allow for the incomplete work in progress and the staged development of new knowledge. ‘To be continued ...’ implies the redesignation – even if only for parts of schooling – of time, to allow for project-based, experimental, innovative frameworks that expect and support the ebb and flow of generating ideas. An important part of this process is organising time and space to allow students to evaluate the effects of their ideas, products and actions. The box bottom left on page 35 shows what environments need to provide adults and young people with, if they are to make the most of their creativity.

Types of spaces for creative learning

In secondary schools, we could include the following types of spaces:
- **formally instructional** – classrooms or lecture theatres for occasions when direct instruction or demonstration is required
- **informally instructional** – workshops, laboratories and studios.

We are all familiar with the type of teaching and learning implied in such environments and these are necessary for certain purposes, but not for all. We should try to move away from the notion that an entire school curriculum must be delivered in such designated spaces in order to stimulate channels for creativity and knowledge production in schools.

Creative learning spaces should open up the possibilities of thinking differently around an issue.

Working with creative professionals

- Partnership and shared planning are crucial. Time spent on collaborative planning is a real investment. Do not bring in a creative professional simply to do a job but try to make links with staff development, possibly through action research. Developing a shared understanding and shared language of creativity around which you work as a partnership is important.
- Explore the CARA programme of work that has operated during 2005 and continues into a phase 2 during 2007. Here, the role of mentors in working with teachers, support staff and creative practitioners in action research projects is identified. Good mentoring means providing a critical sounding board to encourage exploration and learning. Many secondary schools reported on their CARA projects in 2005 and these are available on the Creative Partnerships website (see: www.creative-partnerships.com).
- Operating team-teaching and bringing together curriculum teams from across different areas is helpful.
- Choose your creative partners with care. They need to be willing to collaborate, but teachers need to be willing to take risks and learn as well.
- Have the confidence to step outside of very tightly planned constraints. It is OK not to know exactly what will emerge from a particular process – open-ended questioning is helpful.
- Pose challenges to the usual ways of working in partnerships. For example, make a commitment to involving all parties in keeping a personal diary of their experiences and using these to research and evaluate the key things they have learned from the experience.
- Explore new avenues and new partnerships through working with brokerage agencies, such as museums, libraries, archives and the Arts Council (see: www.artscouncil.org.uk), which can provide an overview of provision.
- Set aside time to spend in each other’s environments – this will build contextual understanding.
- Observe, record and reflect on the impact such partnerships have on learning spaces and use this knowledge to further develop your own wider approach to developing spaces for creativity across the school.
stimulating different approaches by opening up a questioning and querying approach. They might support different types of answers to problems identified by teachers and learners, so bringing both into the role of creative learners and producers of new knowledge.

What might such spaces look like? Some examples that have been tried in new school design include those in the box at the bottom of page 36.

**Inspirational spaces**

Inspirational spaces are not simply rooms for teaching and performance of the arts. The whole curriculum can be approached through creativity. Bringing together more than one curriculum area into a single space can promote creativity in teaching and learning.

Spaces that suggest creativity should signal a respectful and trusting relationship between learner and teacher in the physical setting because the required acceptance of risk, trial and error and freedom to experiment is supported by such a setting. In such spaces, it is important that teachers respect the knowledge and inventiveness that young people can bring with them to school that can become a resource for others, including teachers themselves.

Creative spaces are more likely to be found on the edges of spaces than in the middle because these are the sites where we might find nooks and crannies, meeting corners and softer, less exposed areas for dreaming and thinking. The same might be said of the outdoor school environment, where it is often around the edges of buildings that students gather to socialise and where imagination and meaning-making flourish in relation to the natural and built environment.

**Optimum arousal**

Creativity is enhanced through a certain level of arousal – too much stimulation, through colours, sound, materials, ideas, and the creative response can be overwhelmed; too little and the response will be too weak. There is no universal ‘right level’ that will work for everyone, but what is important is that flexibility is built into learning environments so that changes can be made easily and without fuss. Some architects and designers are experimenting with environments that enable users to change the appearance of materials and stimulate the senses differently, according to personal or group choice. Futurelab has speculated on how new technologies might achieve personalised and changeable learning environments. The walls of learning spaces would be programmable to externally signify to educators and others the immediate needs of the learner, for example, by using lights to externalise when learners need support, other resources, technical advice, and so on, or perhaps even their physical, social and emotional requirements at any given time. The ‘walls ... could be screens on to which learners could present their favourite images, or their own work to be shared with others’ (Rudd et al, 2006).

Practical pointers on how to change school spaces and organise the curriculum to stimulate creativity are given in the box on page 37.

**Organising the curriculum to stimulate creativity**

The traditional school curriculum reflects an idea of knowledge that is divided into subject parts, developed at the end of the 18th century in Europe. It supports the idea of excellence and concentration of knowledge in certain areas. This is important. But, one of the key features of creativity is bringing together disparate parts, playing with and developing the consequences. Examples of ways to stimulate creativity are given in the box at the top of page 38.

**Partnerships and creative spaces**

Creative professionals can bring into schools a creative energy that is very valuable. Creative Partnerships operates in England and is organised regionally (www.creative-partnerships.com). CARA, managed by CapeUK, for Creative Partnerships, supports teachers in carrying out action-research projects in their schools with creative partners (see: www.capeuk.org).

Building a collaborative partnership with a range of creative practitioners can enrich the learning environment further, with practitioners, learners and teachers all learning from and with each other. The British Library programme ‘Inside Story’ (see www.bl.uk/learning/-/cult/index.html) developed the creative skills of young people and teachers from three schools who worked with three key historic texts from the British Library, including the Ramayana. They worked with an animator, a storyteller, a graphic and interactive designer, Indian dancers and public librarians to create an installation that then toured libraries in the region.

Developing a creative learning partnership involves not only empowering the teacher (to take risks and be more flexible), but also allowing the young people involved to become agents in their own learning journeys. For tips on developing effective partnerships with creative professionals, see the box at the bottom of page 38. For tips on getting started, see the top tips given in the box below.

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**Tips for building creative learning**

**Start simply, build progressively**

- Find easy ways in to creative learning. Start with the classroom environment. Move on to how pupils and staff use speech and questions. Keep it manageable, keep the focus tight. Show and share tangible changes. This will develop confidence to go further.
- Be a ‘creative advocate’. Create a presentation or materials that you can use both within your school to convince colleagues and out of school. This will help to build a whole-school ethos around creativity.
- Focus on one area at a time, for example, in developing more creative learning in maths, and use this to raise awareness and encourage staff to think about applications in other subject areas and spaces in the school.
- Organise an Enquiring Minds-type project where pupils have an opportunity to negotiate the aim of the project and are instrumental in designing how it is carried out (see: www.enquiringminds.org.uk).
- Set up an ‘inventor’s club’ after school.
- Transform one small area in the school as a space designed for creativity and imagination. Make sure that the pupils have some ownership of the project.

**Build partnerships to sustain and enrich learning**

- Work with higher education and other agencies to stimulate thinking, open up imaginative possibilities and resources. Record your findings.
- Explore as a staff team what you mean by creativity and learning.
- Look carefully at what opportunities you give to young people to engage in real dialogue about real issues.
- Consider stepping back and giving space for young people to lead learning for themselves. Design activities where, for example, Year 9 leads activities for Year 7. Also, consider involving young people in the research and evaluation process as researchers themselves, giving them the understanding of the process and outcomes.

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The box below contains practical pointers on how to change school spaces and organise the curriculum to stimulate creativity.
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