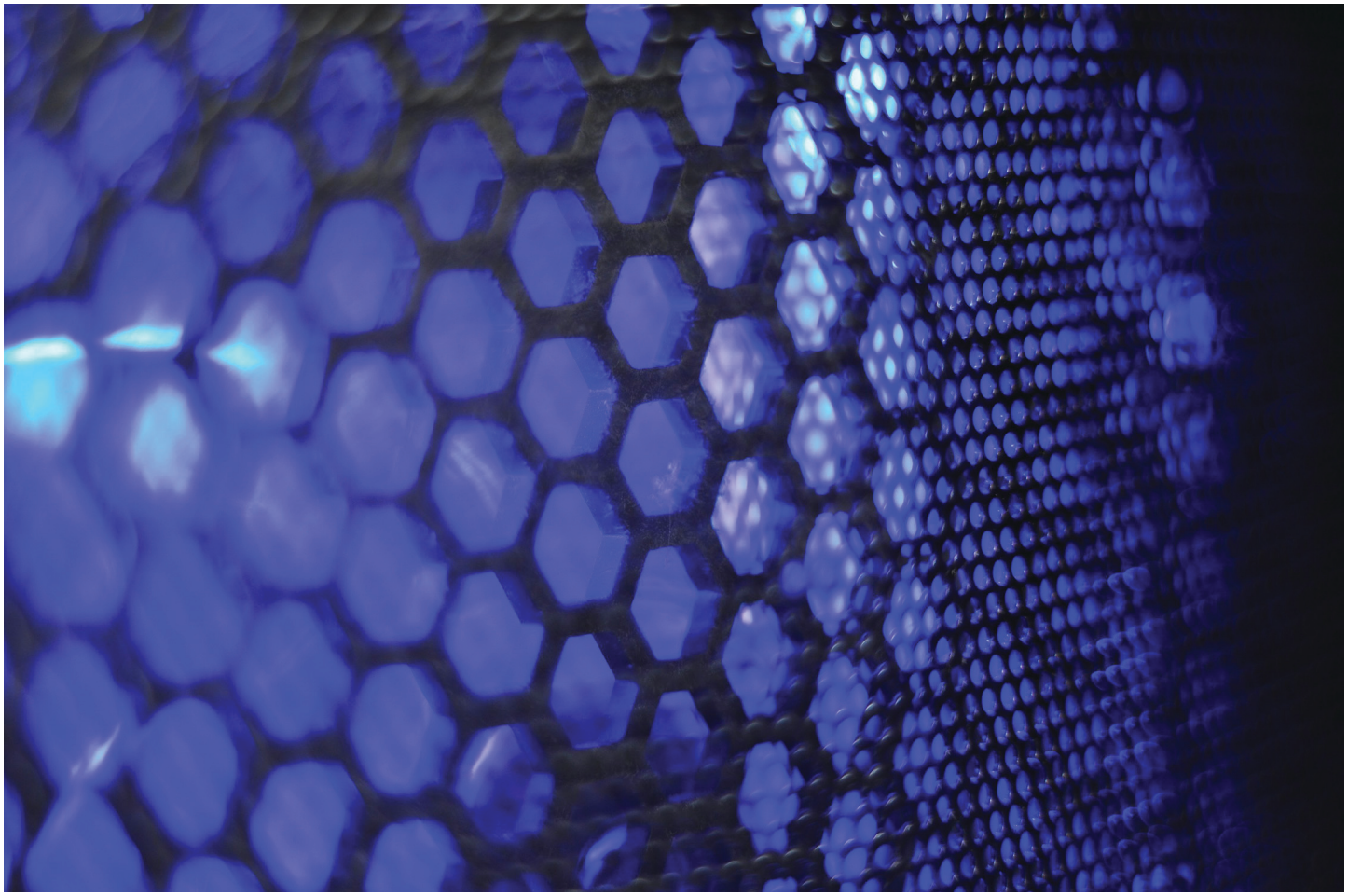
OpenLearn

The Open University

Creativity, community and ICT



About this free course

Find out more about studying with The Open University by visiting our online prospectus.

This version of the content may include video, images and interactive content that may not be optimised for your device.

You can experience this free course as it was originally designed on OpenLearn, the home of free learning from The Open University: http://www.open.edu/openlearn/education/creativity-community-and-ict/content-section-0.

There you'll also be able to track your progress via your activity record, which you can use to demonstrate your learning.

The Open University, Walton Hall, Milton Keynes, MK7 6AA.

Intellectual property

Contents

Introduction

The activities in this unit are designed to support an individual or group of teachers in preparing a school-based training session for colleagues on creativity and information and communications technology (ICT) in the curriculum.

Find out more about studying with The Open University by visiting our online prospectus.

Learning Outcomes

After studying this course, you should be able to:

- engage in debates on different views of creativity and form a view on what creativity means
- recognise the ways in which individuals can be creators and generators of new knowledge
- demonstrate an awaeness of the ways in which ICT creates new opportunities for creative, collaborative activity.

1 Exploring creativity

1.1 Creating creativity

Read the poem below, ‘The Hundred Languages of Children’ by Loris Malaguzzi (translated from the Italian by Lella Gandini). Consider how the school curriculum and environment may or may not encourage creativity in children. Do you agree or disagree with the statements expressed in the poem? Note down your thoughts or the thoughts of your group so you can review them as you continue to work through this unit and engage with some of the debates on creativity.

The Hundred Languages of Children

Invece il cento c'è	**No way. The hundred is there.**
Il bambino	The child
è fatto di cento.	is made of one hundred.
Il bambino ha	The child has
cento lingue	a hundred languages
cento mani	a hundred hands
cento pensieri	a hundred thoughts
cento modi di pensare	a hundred ways of thinking
di giocare e di parlare	of playing, of speaking.
cento sempre cento	A hundred always a hundred
modi di ascoltare	ways of listening
di stupire di amare	of marvelling, of loving
cento allegrie	a hundred joys
per cantare e capire	for singing and understanding
cento mondi	a hundred worlds
da scoprire	to discover
cento mondi	a hundred worlds
da inventare	to invent
cento mondi	a hundred worlds
da sognare.	to dream.
Il bambino ha	The child has
cento lingue	a hundred languages
(e poi cento cento cento)	(and a hundred hundred hundred more)
ma gliene rubano novantanove.	but they steal ninety-nine.
La scuola e la cultura	The school and the culture
gli separano la testa dal corpo.	separate the head from the body.
Gli dicono:	They tell the child:
di pensare senza mani	to think without hands
di fare senza testa	to do without head
di ascoltare e di non parlare	to listen and not to speak
di capire senza allegrie	to understand without joy
di amare e di stupirsi	to love and to marvel
solo a Pasqua e a Natale.	only at Easter and at Christmas.
Gli dicono:	They tell the child:
di scoprire il mondo che già c'è	to discover the world already there
e di cento	and of the hundred
gliene rubano novantanove.	they steal ninety-nine.
Gli dicono:	They tell the child:
che il gioco e il lavoro	that work and play
la realtà e la fantasia	reality and fantasy
la scienza e l'immaginazione	science and imagination
il cielo e la terra	sky and earth
la ragione e il sogno	reason and dream
sono cose	are things
che non stanno insieme.	that do not belong together.
Gli dicono insomma	And thus they tell the child
che il cento non c'è.	that the hundred is not there.
Il bambino dice:	The child says:
invece il cento c'è.	No way. The hundred is there.
Loris Malaguzzi	Loris Malaguzzi (translated by Lella Gandini)

Figure 1

'The child is made of one hundred' by Loris Malaguzzi. © Preschools and Infant-toddler Centers - Istituzione of the Municipality of Reggia Emilia, Italy, published by Reggio Children, 1996. Translation © Lella Gandini.

'The child is made of one hundred' by Loris Malaguzzi. © Preschools and Infant-toddler Centers - Istituzione of the Municipality of Reggia Emilia, Italy, published by Reggio Children, 1996. Translation © Lella Gandini

1.2 Influences on creativity

In the late 1630s, the poet John Milton travelled from England to Italy. While there he visited the astronomer and physicist Galileo Galilei and observed the skies above Florence through the telescope through which Galileo was studying the moon and Saturn.

Figure 2

When viewed through even the crudest of telescopes, a galaxy is a stunning sight – a nucleus and a misty swirl of spiral arms, billions of stars caught in a whirlpool spanning hundreds of thousands of light years. Milton never forgot this experience, drawing on it in his poem *Paradise Lost* (1667). The poem is packed with images of the heavens, the stars and planets, and the sheer immensity of the universe: in the description of creation itself, God's pathway to heaven is:

A broad and ample road, whose dust is gold,
And pavement stars, as stars to thee appear
Seen in the Galaxy, that Milky Way
Which nightly as a circling zone thou seest
Powdered with stars.

(*Paradise Lost*, Book vii, lines 577–81)

Over a hundred years later, Milton's poem was highly influential in Joseph Haydn's composition of his musical masterpiece, *The Creation*. A telescope also provided the

inspiration for this work. Haydn's diary entry, written in England in 1792, gives an account of his visit to the home of William Herschel, also a musician and composer, and his sister Caroline. The Herschels were to become the greatest astronomical observers of the time.

> On 15th June I went from Windsor to (Slough?) to Doctor Herschel where I saw the great telescope. It is 40 feet long and 5 feet in diameter. The machinery is very big, but so ingenious that a single man can put it in motion with the greatest ease. Sometimes he sits for 5 or 6 hours under the open sky in the bitterest cold weather.

This telescopic opening up of the universe made as unforgettable an impression on Haydn as it had on Milton so many years earlier. Biographers have suggested that Haydn stored away at the back of his mind some impression of the vastness of interstellar spaces, which fired his imagination as he later worked on his oratorio, *The Creation*. At its first performance, not even his chief patron had previewed the section where light is first described. Haydn himself was conducting. According to reports of the time, his eyes 'flashed with fire' at that point and the audience was left totally electrified.

Look at the following sequence of creative people and works of art: Einstein, Virginia Woolf, Alice Walker, William Blakes' etching *Jerusalem*. Think about what influenced their creativity and note your thoughts down in a notebook or on a flip chart.

Interactive content is not available in this format.

1.3 How can ICT support creativity?

Through this unit I hope to encourage discussion about how three apparently rather different ideas – creativity, community and new technology – are inextricably linked. How can new technologies enable young people to be more creative?

What activities can we involve them in that will unleash their best expressions of self – as individuals and as members of a school community?

Now think a bit more about what creativity is by doing Activity 1.

Activity 1

Although this unit can be studied by an individual, I have designed it primarily to be used by a group of colleagues. So, if you can, spend some time identifying a small group of staff interested in working together to explore how ICT might support the development of creativity in your school.

Individual activity

Think about the following questions and note your answers.

- Who would you identify as being really creative?
- What qualities do they have that make you say this?
- If you were asked to choose the most creative activity you have ever been involved in, what would it be?

Group activity

Compare your responses to these questions. Were you in agreement about what makes for creativity? (It would be worth summarising the ideas discussed in your Learning Journal or on a flip chart so they can be referred to later.)

1.4 What is creativity?

> All people are capable of creative achievements in some areas of activity, provided the conditions are right, and they have acquired the relevant knowledge and skills … creative *possibilities* are pervasive in the concerns of everyday life, its purposes and problems … creative *activity* is also pervasive … *creativity* can be expressed in collaborative as well as individual activities, in teamwork, in organisations, in communities and in governments.
>
> (DfEE, 1999, p. 28)

It seemed appropriate to begin this unit with accounts of two of the western world's most celebrated works about 'creation' (the poem *Paradise Lost*, and the oratorio *The Creation*), composed in times when new technologies, each in different ways, were causing an absolute sensation. Galileo was imprisoned for his 'treasonable' proposition that the heavens were variable, although it is unlikely this was an issue he was considering when he first pointed his 'tube of long seeing' at the moon in his garden at Padua, Italy.

Although creativity is a twentieth-century word, it has an important and significant history, reaching back to Galileo's time and beyond. Interestingly, the way in which the words 'creation' and 'creativity' have developed across the centuries provides us with an insight into modern views of creativity. What did you and your colleagues consider as your most creative activities? Did you see yourselves as creative? When a group of teachers working at The Open University were asked who they thought of as creative and why, they came up with ideas that included:

- 'Da Vinci – saw possibilities that no-one else had; he was creative within / across a range of fields: science, art, maths, engineering, craft; he synthesised skills and talents from separate domains into integrated projects / ideas / objects';
- 'Salvador Dali – challenged conventional thinking about how the world is viewed; generated a style of imagery that is instantly characteristic';
- 'Tim Berners Lee (creator of the World Wide Web), Mary Wollstonecraft, Sylvia Plath – independent, innovative thinkers, linked together ideas to produce, and effectively communicate, an original way of looking at the world. Challenged conventional perceptions.'
- 'My grandmother – sewed the most exquisite, minute dolls' clothes from scraps of fabric, fur.'

Only one said 'me'!

About their own creativity they were hesitant – 'Don't know.' 'Difficult question.' I'm not a very creative person.' 'All seems very mundane.' When pushed: 'various dance productions'; 'working with gymnasts who represented chemical elements to make a video about the periodic table.' I was surprised by their view that they were not

themselves creative. After all, they were creating teacher training courses and resources being delivered over the web; they had all been involved in the design and functionality of the website and were pushing the boundaries by delivering online content using new technologies. Yet the colleagues who together helped to envision and create such an environment did not see themselves as especially creative.

Have a look now at Activity 2 to explore these ideas in more depth.

Activity 2

(PDF, 4 pages, 0.1MB)

View document

Individual task

Read the extract 'A Hundred Possibilities: Creativity, Community and ICT', linked above. This is my account of the history of creativity as a concept. It explores three views of creativity: the *elite* view; the *sectoral* view; and the *democratic* view (DfES, 2001). I also give a critique of the commonly held view that creativity is an innate and rather rare human quality.

Group task

Decide in your group what you think are:

(a) the key aspects of creativity;

(b) the view/s of creativity that you are most in agreement about;

(c) the areas of your school curriculum (including extra-curricular activities) that you think already foster creativity.

If you are interested in reading more about creativity, take a look at the government report All Our Futures (accessed 28 July 2008), which emphasises the equal importance of creative and cultural education to literacy and numeracy. This somewhat controversial report was never sent to schools in the way most commissioned educational reports are.

2 Creative communities and ICT

We oppose
'any prophetic pedagogy
which knows everything before it happens,
which teaches children
that every day is the same,
that there are no surprises,
and teaches adults
that all they have to do is repeat
that which they were not able to learn.'

(Loris Malaguzzi)

Despite a vast literature on the topic of creativity in educational settings, most research indicates that educational institutions rarely promote the creative process. Many schools tend to focus on enculturating students into existing school knowledge, driven by a concern for individual children to acquire certain amounts of 'statutory' know-how before leaving a particular key stage. Research also suggests, however, that in settings where creativity is valued, and where creative processes are themselves the subject of learning, teachers and learners begin collectively to share and develop purposes and activities commonly ascribed to 'creative' individuals. Sources for such research include learning communities influenced by the work of educationists such as Dewey, Montessori, and Freinet. One international and celebrated contemporary example is the pre-school community of Reggio Emilia in Italy, founded by Loris Malaguzzi. Read Howard Gardner's vivid account (linked below) of the kind of activities found in Reggio's pre-schools, as well as the sorts of knowledge valued by those communities.

(PDF, 1 page, 0.12MB)

View document

Although the children's creations are significant, Gardner argues here that they do not represent the heart of the Reggio enterprise. Rather, it is the social dimension of the Reggio community that is paramount: Reggio Emilia schools, Gardner concludes, are schools that 'suit the entire community: teachers, parents, the physical setting, the region and above all the growing children working together to create a creative whole.' You can read more of Gardner's views in *The Disciplined Mind: Beyond Facts and Standardized Tests, The K-12 Education That Every Child Deserves*, Howard Gardner, 2000.

Within creative communities, technologies are also usually integral to daily activity. Below is Loris Malaguzzi's account of a famous project undertaken in one of the Reggio Emilia pre-schools (an 'Amusement park for birds') which demonstrates the role that technology can play, even within a community of very young learners:

(PDF, 1 page, 0.12MB)

View document

Creative communities often look at how the very latest technologies can be used to develop ideas and activities – and creative educational communities are no exception. New information and communications technology (ICT) can play an exciting role at all levels and stages of the educational process. The three case studies outlined in the next three sections of this unit provide some examples.

See how to use them to inform yourself and your colleagues about creativity within ICT in Activity 3.

Activity 3

Group task

(a) Discuss the kinds of information and communications technologies you are currently using in your school. Remember to include the *purposes* for the use of ICT in the curriculum.

(b) Case studies 1–3 in the following sections present a range of case studies of teachers and students using ICT. Assign each member of the group to explore one (or more) of the case studies in some detail. Each must prepare to report back to the group on:

(i) key aspect(s) of creativity supported by ICT use;

(ii) aspects of ICT and purpose not currently used in the school (refer to the notes you made in Activity 2);

(iii) elements of the case study that might be of interest to other colleagues.

In addition to the three case studies, you will also find links to other examples that show creative uses of ICT. These are included to extend the range of examples provided by the main case studies. You might also like to consider one or more of these for this activity.

3 A knowledge-building community

3.1 Introduction

> We have the obligation to think about the future, precisely because of the type of work we do … Venturing the future is not a risk – it's a necessity of the dignity of humankind.
>
> (The Disciplined Mind: Beyond Facts And Standardized Tests, The K-12 Education That Every Child Deserves, Howard Gardner, 2000)

This first case study shows the way in which ICT is used within a classroom community:

- to make thinking explicit and reflective;
- to support collaborative thinking;
- to enable such thinking to move in new and unpredictable directions.

3.2 Case Study 1: Caswell's cockroaches

The setting is a class of nine- and ten-year-olds in Toronto, Canada. The curriculum focus is biology. The classroom has been carefully organised to mirror the way in which a real adult scientific research community operates at the University of Toronto's zoological

department, local to the school. Over a ten-week period, the young students are given the opportunity to become immersed in a culture of 'scientific inquiry' by their teacher, Beverley Caswell, who has chosen to make the Madagascan Hissing Roach the focus of research. She had already used sustained investigations of this roach with previous classes as a way of developing scientific thinking. Her experiences confirm those of other teachers: showing the species to be ancient in adaptation and evolution is 'interesting and awe inspiring' for young students. See for example http://www.uen.org/utahlink/activities/view_activity.cgi?activity_id=2027.

Figure 3

Photo: © Emma Craib

As the weeks unfold, the students take care of and study the roaches in their own classroom community. Caswell starts with an introductory lesson to inspect the live animals, hear some facts about them, as well as taking turns to hold and sketch them. Each child is given its own research journal, which Caswell tells them is what scientists at the Zoological Department use for observation questions, research notes and experimental designs. Each student also learns to use the CSILE (Computer Supported Intentional Learning Environment) Knowledge Forum technology as an integral tool for working.

The CSILE Knowledge Forum is a computer software programme which creates 'a multimedia community knowledge space'. In the form of 'Notes', users can contribute theories, working models, plans, evidence, reference material and so forth to this shared space. The software provides knowledge-building 'supports', both in the creation of these notes and in the ways they are displayed, linked and made objects of further work. 'Revisions, elaborations and reorganisations over time provide a record of group advances, just like the accumulation of research advances in a scholarly discipline' (Scardamalia).

Read this account, linked below, of how the young science community develops:

(PDF, 4 pages, 0.4MB)

View document

This bustling classroom with its whole-group debates, visits to the zoological department and ongoing use of the Knowledge Forum software reflects a ‘mutual community’ which Bruner suggests:

> Typically … models ways of doing and knowing, provides opportunities for emulation, offers running commentary, provides ‘scaffolding’ for novices, and even provides a good context for teaching deliberately. It even makes possible that form of job-related division of labour one finds in effective work groups … the point is for those in the group to help each other get the lay of the land and the hang of the job.
>
> (Bruner, 1996, p. 21.)

Case study 1 has emphasised the way in which ICT (Knowledge Forum and the use of a video camera) can help:

- to make thinking explicit and reflective;
- to support collaborative thinking;
- to enable such thinking to move in new and unpredictable directions.

The next section is a case study in English: the uses of digital cameras to support collaborative thinking in the exploration of poetry.

4 Collaborative creativity

4.1 Introduction

> Collective oeuvres* produce and sustain group solidarity. They help make a community. Works and works-in-progress create shared and negotiable ways of thinking in a group … externalising, in a word, rescues cognitive activity from implicitness, making it more public, negotiable and solidary.
>
> (Bruner, 1996, p. 22)

*An oeuvre is normally defined as the total output of an individual writer or artist (or a substantial part of it).

New technologies, particularly the internet, electronic mail and multi-user domains can give us access to knowledge and expertise formerly unavailable in classrooms and schools. They provide new means of accessing information, as well as new forms of communication between teachers and learners. ICT can also provide greater and more flexible possibilities for creative collaborations. Across schools in Chile, for example, young students in the Enlaces Project worked together to create the first ever dictionary in native dialects by collaborating via electronic mail. The Open University's Digital Education Enhancement Project (DEEP) links students in remote and poor communities in South Africa with children in Milton Keynes and London by video conference on a monthly basis. They discuss topics of mutual interest – music, the environment, marriage, etc., in order to learn about each others' experiences, views and cultures.

In the case study that follows, the internet is used to:

- provide a medium that allows students to move in unpredictable directions;
- extend the range of tools currently available within the ‘subject’ discipline;
- enable collaborative ‘products’.

4.2 Case Study 2: A digital arts collaboration

The Virtual Identities Digital Arts Project (Learning Schools Programme, 1999a) involved post-16 art and design students from two Liverpool schools and two Kent schools in the United Kingdom. The project unlocked new ideas and ways of working by encouraging collaboration between students from different geographical areas, cultures, experiences and perceptions. Each student was assigned a partner. To begin with they exchanged a ‘digital postcard’ that represented one aspect of their personal identity. Every email image received had to be responded to, modified and interpreted, while retaining 20 per cent of the original in order to provide a sense of sequence.

The stimulus for these images and artistic statements was open ended, chosen by the students themselves. In addition to using images and texts that represented their individual identities, students were encouraged to think about their own values and concerns. They collected newspaper cuttings reflecting local, national or global issues, such as ecology or peace studies. One student scanned images of her hand, which she then digitally manipulated and modified. Here are her teacher's comments:

> This was intended to reflect her identity in a subtle way. As with fingerprints, the truth was there, but only if the code could be interpreted. There was a deliberate attempt to be obtuse and enigmatic, to see what it would draw from her collaborator. Her image was then altered and posted to the web site. It now contained military elements and reference to the Gulf War, which was threatening to escalate at the time. The hands, which originally appeared to be welcoming, now looked as if they were surrendering or imploring. By restricting the colour of the whole image to tones of red, the fingers resembled flames within a sea of fire. She decided to make the conflict with Iraq more explicit in the work. She used the modified image as a background, overlaying images of war and incorporating the flags of the UN and Iraq.

The students became highly focused fellow ‘artists’, passionate about the project in hand. One of the project teachers said:

> I was keen to exploit the vast potential of the internet for art and design. In this sense, the collaboration was intentionally creative, indeed this remained the first and key ‘possibility’ of the project, i.e. the possibility of moving in exciting and unpredictable directions.

The use of the internet enabled students to *transform* physical objects into digital images. It also provided a medium in which they could explore visual phenomena, experimenting with visual language and extending the range of tools currently used in art, including image manipulation and layering. As with the roach documentary, the resulting images and web site became a visual record of the development of students' ideas, a joint ‘oeuvre’ (as Bruner calls it), with a potentially international audience: the sharing of work-in-progress with others.

Again, in common with our young scientific community, the project clearly drew on a range of expertise both within and outside the schools, including the work of a 'talented and experienced teaching team' and a visiting artist. Technology enabled teachers and students to interact collaboratively, communicating with different audiences at a local, national and international scale.' This initiative represented a totally new way of working for both departments and students involved.

Figure 4

Learning School Programme, © The Open University

The image above was created from a collaborative project called 'Virtual Identities', worked on by a group of students from Anfield Community College. Students used library resources, newspaper cuttings and the internet to explore the ideas around virtual identity. They had access to scanners, photocopiers, digital cameras, and software packages such as CorelDraw, PhotoPaint, Adobe Photoshop. The students started by photocopying their hands, then tried scanning them and manipulating the images by cropping, using a layering technique, using colour and finally manipulating the pixel resolutions.

Case study 2 has emphasised the way in which ICT can help:

- provide a medium that allows students to move in unpredictable directions;
- extend the range of tools currently available within the 'subject' discipline;
- enable collaborative 'products'.

Linked below are two other examples to explore, plus an OpenLearn unit on the role of digital media as a teaching tool:

- Microsoft Miro Portraits
- Animation: 'Out of your head'
- E500_12 *Teaching using digital video in secondary schools*

5 A community of writers

5.1 Introduction

> Creativity should not be considered a separate mental faculty but a characteristic of our way of thinking, knowing and making choices. Creativity seems to emerge from multiple experiences, coupled with a well-supported development of personal resources, including a sense of freedom to venture beyond the unknown. The most favourable situation for creativity seems to be interpersonal exchange, with negotiation conflicts and comparison of ideas and actions being the decisive elements.
>
> (Loris Malaguzzi, 1990)

The focus of this third case study is a class of 15-year-old students in a Gloucestershire comprehensive school in the UK in the beginning stages of a two-year GCSE English course. Here, computer software is used to:

- develop students' understanding of the subject;
- encourage the creation of a new product;
- enable that product to be publicly shared.

5.2 Case study 3: Menon poetry

The class teacher (Menon, 1999) was keen to develop the sense of a ‘writing community’ early on in the term. In the first few weeks she invited her students to form groups of their own choice, research a poet from a selected list, then plan and carry out a presentation. Students were encouraged to use the internet as part of this research.

> At such an early stage in the academic year, when getting to know a group, the ‘freedom’ of such lessons is a risk in terms of class management. I very much relinquished any leadership role, but was available to students for reference and suggestions. The time allowed me to get to know the class in terms of group dynamics, student initiative and motivation. Students led and supported each other in terms of their use of new technologies. Many automatically chose to go to the internet to find information and several found materials relevant to their work, such as Benjamin Zephaniah's own web site. Once one group had found material on the web, others were keen not to be outdone. A couple of groups floundered in terms of choices of poems, poets or presentation – content as well as method – and I needed to work alongside both individuals and groups. It was interesting to watch the development of students' research skills in the library context.
>
> (Esther Menon, 1999)

In the run-up to these presentations, one student, who had been learning to use PowerPoint in another lesson, volunteered to put the poems chosen by each group onto

an overhead screen for the final presentations. It would save the English department a considerable amount of photocopying money, he argued! The teacher agreed and set up a public document on the school network into which each group typed their chosen poem. One group placed a Caroline Duffy poem, 'Valentine', into the software programme for projection during their presentation. The girls involved wanted to preface their presentation with a reading of the poem, one of them taking the *actual* 'voice' of the poem, the other *imagining* the recipient's response. Not only did the projected text enhance the presentation considerably, the group collaboration using PowerPoint software during the preparation led to a far deeper understanding of the poem.

This work led directly, but unexpectedly, to the students exploring an innovative way of creating their own kinetic poetry. Here is their account of how it happened:

> We started off with a poem by Bruce Naumann … we did quite a bit of preparatory work on the poem … We were then asked to find a quotation of our own for homework. I used the *Bloomsbury Dictionary of Quotations* and came up with a whole pile which I thought might be suitable. Me and Matt then chose the one we eventually used. After we had the quotation, everything was just plain sailing, we had a great time making all sorts of interesting lines for it. We just kept churning them out and, afterwards, took them away and came up with our own version. We decided on the final version together. Then we had the idea, in discussion with our teacher, because we had already been using PowerPoint, of also using PowerPoint to animate the words.

The final animated product, 'Revolution' seen below, demonstrates the potential of ICT to make poetry a multi-sensual experience. The poem exemplifies how multimedia can be used to highlight the kinetic qualities of a text to convey meaning, and the exciting possibilities for students' writing as they draw on music and image or movement to add meaning to text. Texts in this new electronic medium may be non-linear, many-layered, combine different media, and have an element of duration, thus there are multiple opportunities for young writers to create new forms of writing that extend and challenge traditional conceptions of text.

Interactive content is not available in this format.

('Revolution' by Matthew Gavin and Stephen Windsor.)

'Revolution' by Matthew Gavin and Stephen Windsor.

Below is another example of how poetry can be enhanced by animations. Notice how some of the words have been animated to emphasis the sentiments expressed in the poem 'Search for my Tongue' by Sujata Bhatt.

Interactive content is not available in this format.

('Search for my Tongue' by Sujata Bhatt, from Bhatt, S (1997) 'Point No Point'. By kind permission of Carcanet Press Ltd.)

'Search for my Tongue' by Sujata Bhatt, from Bhatt, S (1997) 'Point No Point'. By kind permission of Carcanet Press Ltd.

This animation was taken from the Moving Words website which gives teachers innovative ways of using ICT to explore literature.

More information on this project is available at http://www.lsp.open.ac.uk/english/teaching/cameo1/.

Activity 4

Take a look at the video clip below, in which students Chosen Hill Secondary School in Gloucestershire explore their presentation of the poem 'Valentine' together. Think about or discuss how you could create opportunities in your teaching for pupils to work collaboratively and creatively like this.

Exploring a presentation of 'Valentine'

File attachments are not available in this format.
View document

Case study 3 emphasises the way in which ICT can help:

- develop students' understanding of the subject;
- encourage the creation of a new product;
- enable that product to be publicly shared.

Linked below are two other examples to explore:

- Information skills
- Using ICT to enhance learning and its assessment: a storytelling project

6 One hundred possibilities

> The more teachers are convinced that intellectual and expressive activities have both multiplying and unifying possibilities, the more creativity favours friendly exchanges with imagination and fantasy.
>
> Creativity requires that the school of knowing finds connections with the school of expressing, opening the doors to the hundred languages of children.
>
> (Loris Malaguzzi, 1990)

In each of the learning communities described in the case studies, there is the expectation that teachers and their students share the same goals and purposes. But also, that individuals are experts in different things – and speak from different experiences, and therefore they take a variety of roles in the classroom community.

Creativity is also an aspect of knowledge that is valued – and it is itself the subject of learning.

Students in each of these communities value collaboration and joint knowledge-building. The social nature of learning is explicit.

Here is how I would summarise the key elements of these inspiring classroom communities:

Goals

- strong sense of purpose and ultimate goals;
- fully engaged in, passionate about, their 'subject';
- a desire to do new things;
- ambitious and risk taking.

Activities (commonly ascribed to 'creative' individuals) include:

- initiating projects;
- considering a range of ideas before settling on one solution;
- problem solving; formulating new ideas, hypothesising;
- using technologies as integral to work, to make thinking explicit or in order to create new products.

Products (commonly ascribed to 'creative' individuals):

- high quality;
- explicit about values;
- innovative;
- unique.

Margaret Bowden (1999) says that there are two key dimensions to creativity: the *historical* and the *personal*. In this unit I have argued for the importance of a third – the *social*.

As educators, we need to pay attention to this social dimension of creativity if our young people are to have access to 'one hundred languages, one hundred hands, one hundred thoughts, one hundred ways of thinking.' One hundred possibilities.

You can plan a school-based training session on ICT and creativity by looking at Activity 5.

Activity 5

Share the ideas from the case studies for which you were responsible. Decide together which you think might be of most interest to your colleagues. Plan a school-based training session on ICT and creativity for your colleagues (you might wish to use some of the activities from this unit with them).

Include in this session:

- the opportunity for everyone to explore views of creativity – as well as time for colleagues to explore its meaning for themselves;
- a discussion on how creativity might be fostered more strongly in your school community using ICT.

Conclusion

This free course provided an introduction to studying Computing & IT. It took you through a series of exercises designed to develop your approach to study and learning at a distance, and helped to improve your confidence as an independent learner.

Keep on learning

Study another free course

There are more than **800 courses on OpenLearn** for you to choose from on a range of subjects.

Find out more about all our free courses.

Take your studies further

Find out more about studying with The Open University by visiting our online prospectus.

If you are new to university study, you may be interested in our Access Courses or Certificates.

What's new from OpenLearn?

Sign up to our newsletter or view a sample.

For reference, full URLs to pages listed above:

OpenLearn – www.open.edu/openlearn/free-courses

Visiting our online prospectus – www.open.ac.uk/courses

Access Courses – www.open.ac.uk/courses/do-it/access

Certificates – www.open.ac.uk/courses/certificates-he

Newsletter –
www.open.edu/openlearn/about-openlearn/subscribe-the-openlearn-newsletter

References

Bruner, J. (1996) *The Culture of Education*, Cambridge, Harvard University Press.

Caswell, B. and Lamon, M. (1999) 'The Development of Scientific Literacy: the Evolution of Ideas in A Knowledge Building Classroom' in Leach, J. & Moon, R.E. (1999) *Learners & Pedagogy*, London, Paul Chapman.

Cummins, J. and Sayers, D. (1995) *Brave New Schools*, Toronto, OISE Press. DfEE (1999) *All Our Futures: Creativity, Culture and Education*, London, National Advisory Committee on Creative and Cultural Education.

Eco, U. (1997) *The Search For The Perfect Language*, London, Fontana, 1991.

Gardner, H. (1993) *The Disciplined Mind*, New York, Basic Books.

Gruber (1985) 'Giftedness and Moral responsibility: Creative Thinking and Human Survival' in *The Gifted and The Talented: developmental perspectives* ed. Horowitz, F. and O'Brien, M., Washington, American Psychological Association.

Howe, M.J.A. (1990) *The Origins of Exceptional Abilities*, Oxford, Blackwell.

Lave, J. (1988) *Cognition in Practice*, Cambridge, CU Press.

Lave, J. and Wenger, E. (1991) *Situated Learning*, Cambridge, CU Press.

Leach, J. & Moon, R.E.(1999) 'Recreating Pedagogy' in *Learners & Pedagogy*, London, Paul Chapman.

Leach, J. and Moon, R.E. (2000) 'Pedagogy, Information and Communication Technologies and Teacher Professional Knowledge' in *Curriculum Journal*, forthcoming.

Leach. J. (2000) 'Mother Tongue Teaching' in Brown, S., Moon, R. and Ben-Peretz, M. (eds) *International Companion to Education*, Routledge, London.

Leach, J. (2000 forthcoming) 'Breaking the Silence: the Role of Technology and Community in Leading Professional Development' in Moon, B., Bird, L., Butcher, J. (eds) *Leading Professional Development*, Paul Chapman, London.

Leach, J. and Moon, R.E. (forthcoming) *Pedagogies*. Lodi, M. *(1970) Il Paese sbagliato*, Turin, GiulioEinaudi.

Menon, E. (1998) 'Not Drowning But Surfing', *English and Media Magazine*.

Messenger, J. (1958) 'Esthestic Talent', *Basic College Quarterly*, 4, pp. 20–24 Open University (1999a) CD-ROM ART Learning Schools Programme, Milton Keynes, Open University and Research Machines.

Open University (1999b) CD-ROM ENGLISH Learning Schools Programme, Milton Keynes, Open University and Research Machines.

Perkins, D. (1981) *The Mind's Best Work*, Cambridge, Harvard University Press.

Pinker, S. (1995) *The Language Instinct*, London, Penguin.

Rogoff, B. (1999) 'Cognitive Development Through Social Interaction: Vygostky and Piaget' in Murphy, P. *(ed.) Learners, Learning and Assessment*, London, Paul Chapman.

Ryhammar, L. and Brolin, C. (1999) 'Creativity Research', *Scandinavian Journal of Educational Research*, Vol. 43, No 3, 1999, pp. 259–73.

Sloboda, J., Davidson, J.W. and Howe, M.J.A. (1999) 'Is Everyone Musical?' in Murphy, P. *(ed.) Learners, Learning and Assessment*, London, Paul Chapman.

Steiner, G. (1975) *After Babel, Aspects of Language and Translation*, London, Oxford University Press.

Sternberg, R. ed. (1988) *The nature of creativity*, New York, Cambridge University Press.

Tonucci, F. (1981) *Viaje alrededor de 'ElMundo': Un diario de clase de Mario Lodiy sus alumnos*. M. Vassallo, trans. Barcelona: Editorial Laia. (Original work published in 1980 as *Un giornalino di classe* (a classroom newspaper), Roma Bari, Guis, Laterza and Figli Spa.)

Williams, R. (1984) *Keywords. A vocabulary of culture and society*, London, Fontana.

Zuckerman, H. (1997) *Scientific Elite: Nobel Laureates in the United States*, New York, Free Press.

Acknowledgements

Grateful acknowledgement is made to the following sources for permission to reproduce material in this unit:

'The child is made of one hundred' by Loris Malaguzzi. © Preschools and Infant-toddler Centers - Istituzione of the Municipality of Reggia Emilia, Italy, published by Reggio Children, 1996. Translation © Lella Gandini;

Craft, A. (2001) 'Creativity in Education', by kind permission of Continuum;

'Search for my Tongue' by Sujata Bhatt, from Bhatt, S (1997) *Point No Point*. By kind permission of Carcanet Press Ltd.;

'Revolution' by Matthew Gavin and Stephen Windsor.

Madagascan Giant Hissing Cockroaches Photo: © Emma Craib;

Image of hands Learning School Programme, © The Open University;

Einstein Photo © CORBIS;

Virginia Woolf Photo © Mary Evans Picture Library;

Alice Walker Publisher unknown;

William Blake Plate 100 from 'Jerusalem' (1820) Photo © Bridgeman Art Library.

The Learning Schools Programme, © The Open University.

Every effort has been made to contact copyright owners. If any have been inadvertently overlooked, the publishers will be pleased to make the necessary arrangements at the first opportunity.