

Foreword

Developing creativity

Mihaly Csikszentmihalyi

Doctoral students drop out of universities before graduation not because they cannot pass exams or get good grades in courses, but because they cannot come up with an original idea for a dissertation. They are bright and know an enormous amount, but all their academic careers they have learned how to answer questions, solve problems set for them by others. Now that it is their turn to come up with a question worth answering, all too many of them are at a loss.

One hears the same story in industry and the business world, in civil service and scientific research. Technical knowledge and expertise might abound, but originality and innovation are scarce. Yet the way our species has been developing, creativity has become increasingly important. In the Renaissance creativity might have been a luxury for the few, but by now it is a necessity for all.

There are several reasons for this, some that are in conflict with each other. The first is the undeniable increase in the rate of change, mainly spearheaded by technology but also involving lifestyles, beliefs and knowledge. Today's technical marvel is obsolete tomorrow; the diet so many swear by today turns out to be unhealthy after all; the scientific specialty one has trained in for many years no longer provides a stable career. Great nations collapse, wealthy corporations dissolve in bankruptcy. It takes creativity not to be blinded by the trappings of stability, to recognize the coming changes, anticipate their consequences and thus perhaps lead them in a desirable direction.

A second trend is the rapid globalization of economic and social systems. Ideally, this would lead to a better distribution of labor and of resources; a better integration of beliefs, values, and knowledge. At the same time, globalization involves a great deal of what Schumpeter called 'creative destruction' – without a certainty that the destruction will actually result in a creative outcome. It will take a good dose of creativity to avoid the result that the division between rich and poor will not replicate on a global scale the former division between capitalists and proletariat; that the valued traditions of less powerful cultures will not be lost, but integrated with the Western patterns so as to enrich the future instead of impoverishing it.

Another emerging trend is the specialization of knowledge, leading to new forms of fragmentation based on knowledge rather than tradition. A great number of breakthroughs in science of the past century have come at the interface of disciplines: between physics and chemistry, between chemistry and

biology. As each discipline keeps becoming deeper and more complex, it is easy to lose sight of those neighboring branches of knowledge that might help transform one's own.

Any society, any institution that does not take these realities into account is unlikely to be successful, or even to survive in the coming years. On the other hand, individuals who see the opportunities in this new scenario are going to be in a better position to add value to their communities, and prosper in the process. But this requires the ability to recognize the emerging realities, to understand their implications, and to formulate responses that harness the energy of evolution to build products, ideas, and connections that add value to life. And that requires creativity.

How is education preparing young people for this creative task? So far, not very well. The culture-lag between what is needed in the present and what the schools offer has always existed; now it threatens to grow ever larger. Schools teach how to answer, not to question. They teach isolated disciplines that, as the years pass, become more and more difficult to integrate. Reference to the present, let alone to the future, is lacking in most school curricula which are dominated – understandably, perhaps – by a concern with transmitting past knowledge. Yet the past is no longer as good a guide to the future as it once had been. Young people have to learn how to relate and apply past ways of knowing to a constantly changing kaleidoscope of ideas and events. And that requires learning to be creative.

The present volume, edited by Norman Jackson and colleagues, is thus very timely. To my knowledge, this is the first volume addressing the role of creativity in higher education. It is a difficult but essential project. Difficult for several reasons, some more easily avoidable than others. The most obvious danger is that of reducing creativity to a facile routine of exercises in 'thinking outside the box.' These days the popular view of a creative person is someone who spins off original ideas left and right, a person one would like to hang out with at a cocktail party so as to be amused by a constant stream of witty apperceptions.

But if one is to go by the evidence of the creative individuals of the past, creativity requires a focused, almost obsessive concern for a clearly delimited problematic area. Neither Isaac Newton nor Leonardo da Vinci would have been great hits at a party. Neither Johann Sebastian Bach nor Dante Alighieri were known for their witty repartee or fluid imagination – except in their own work. There are occasional exceptions: Benjamin Franklin was more like the current conception of what a creative person should be like, as apparently he *was* the life of the party at the French court during his residence there. But within their domain of interest, all creative individuals love the task that engages their whole energy. They all echo the words of Paolo Uccello, the Florentine who was one of the first to learn how to use perspective in painting, who according to his wife used to walk up and down the bedchamber all night, shaking his head and muttering: 'Ah, what a beautiful thing is this perspective!'

So if one wishes to inject creativity in the educational system, the first step might be to help students find out what they truly love, and help them to immerse themselves in the domain – be it poetry or physics, engineering or

dance. If young people become involved with what they enjoy, the foundations for creativity will be in place. Vittorino da Feltre, who at the turn of the 1400s started one of the first liberal arts colleges in Europe, well understood the relationship between enjoyment and creative learning. He called his school *La Gioiosa* – The Joyful Place – and many of his students ended up among the leading thinkers of the next generation.

But how can the joy of learning be instilled in modern universities? There are several approaches one can take: First, making sure that teachers are selected in part because they model the joy of learning themselves, and are able to spark it in students; second, that the curriculum takes into account the students' desire for joyful learning; third, that the pedagogy is focused on awakening the imagination and engagement of students; and finally that the institution rewards and facilitates the love of learning among faculty and students alike.

But even this is just a first step, a setting of the stage, so to speak. When students are eager to immerse themselves in learning because it is a rewarding, enjoyable task, the basic prerequisites for creativity are met. What next? That is where the readings of this volume come in. They present a variety of perspectives on the stimulation of creativity, on how to support and nurture it. Taken together, they provide a much needed cornerstone for the systematic introduction of creativity into higher education.

Claremont, December 2005

1 Imagining a different world

Norman Jackson

Imagination is the beginning of creation.

(George Bernard Shaw)

Imagine a different world of higher education

Our ability to imagine and then invent new worlds for ourselves is one of our greatest human assets and the origin of all human achievement. It is the vision of a higher education world in which students' creativity is valued alongside more traditional forms of academic achievement that provides the driving force for this book and energises the Imaginative Curriculum network:¹ a loose association of people campaigning for greater consideration of the role of creativity in higher education. Underlying this project are the assumptions that: helping people to be creative is a good thing; that people tend to be more satisfied if they are able to be creative; and that individually and collectively we need to be creative to continually adapt and invent in an ever-changing and increasingly complex world. But, more than anything else, we are campaigning for creativity because we believe that students' experiences of higher education and their future lives will be enriched if teachers help them recognise, experience and develop more of their potential. Pragmatically, we believe that students will become more effective learners and, ultimately, successful people if they can recognise and harness their own creative abilities and combine them with more traditional academic abilities.

This book is part of a strategy to encourage higher education to think more deeply about its responsibilities and practices for nurturing students' creativity and to provide practical help and advice to teachers who want to develop their curricula and teach in ways that are more likely to foster students' creativity. Our strategy reflects Michael Fullan's (2003: 23) wise advice for accomplishing complex change:

- Start with the notion of moral purpose, key problems, desirable directions, but don't lock in.
- Create communities of interaction around these ideas.
- Ensure that quality information infuses interaction and related deliberations.

- Look for and extract promising patterns, i.e. consolidate gains and build on them.

The book draws together the results of many of these interactions to 'extract promising patterns'. Our objective is not to provide definitive scientific definitions of what creativity in higher education means. Rather, it is to open up the many rich and diverse conceptions of what creativity means to individuals and groups of people and how it is enacted in different teaching and learning contexts. Our hope is that readers will find things that resonate with their world and be inspired to see their own practices in a new light. In doing so we are seeking to give substance to the *voices* of higher education teachers in their individual practice settings. In producing this book our objectives are to:

- show why higher education should be helping to develop the creative potential of students and advance understanding about the role of creativity in higher education.
- stimulate interest/curiosity in creativity in higher education beyond the disciplinary fields that have traditionally embraced the idea.
- provide practical advice and aids to encourage more teachers to examine their own understandings of creativity in their disciplinary and curriculum contexts and develop their practice in ways that will enable students to experience and develop their own creativity.

The formulation of a problem is far more often essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old problems from a new angle requires creative imagination and marks real advances in science.

(Albert Einstein)

Finding the problem

Finding and working with problems is core to the academic creative enterprise and when we began to explore the question of, 'what does creativity mean in higher education?' Anderson's Law came into force with a vengeance.

I have yet to see any problem, however complicated, which, when you looked at it in the right way, did not become still more complicated.

(Anderson's Law)

The 'right way of looking' entailed exploring the issue of creativity through multiple perspectives, engaging with the lived experiences of teachers and students and using the research literature on creativity to try to make sense of the patterns that emerged. I like to think that the imaginative curriculum project has helped to create the conditions for the emergence of sense-making in this complex perceptual and practice world (see Tosey, Chapter 4, for an elaboration of the concept of emergence). Inevitably, the approach is leading to a deeper

appreciation of the complexity underlying our problem, some of the dimensions of which are examined below.

Problems are things or states that someone thinks are worthy of attention or investigation. They might be visualised from two very different perspectives. The first sees a problem as an issue that needs to be resolved or rectified, the second that there is an opportunity for something different. The problem called 'creativity in higher education' contains both of these perspectives but is much more about the latter than the former.

Finding a problem requires someone to be looking for it – people who will own and care enough about the problem to do something about it. In our network-building activities through the Imaginative Curriculum project we have encountered many individuals – teachers, staff and educational developers, managers, educational consultants/advisers, and researchers who care enough about a problem called 'creativity in higher education' to commit their time, energy and minds to trying to understand and work with it. The Imaginative Curriculum network was invented to provide a social structure to enable people who cared about creativity in higher education to connect, communicate and collaborate by pooling their knowledge and resources to develop a deeper understanding of the problem and how it might be addressed and to co-create new opportunities for students' and teachers' creativity.

The ill-defined problem we are engaging with is associated with a question like, 'how can we improve the higher education experiences and the future lives of students by giving greater attention to the role of creativity in their learning?' Or, if you are a teacher you might prefer, 'how can I be a part of the educational experience of students fostering creativity in pursuit of our shared goals?' Such a representation locates our problem in the ultimate moral purpose of education – 'making a difference to students' lives' (Fullan, 2003: 18) and provides us with our inspiration and motivation.

Our problem is not chronic, in the sense that the vast majority of teachers believe there is an issue to be addressed. It is more of a sense of dissatisfaction with a higher education world that seems, at best, to take creativity for granted, rather than a world that celebrates the contribution creativity makes to academic achievement and personal well-being.

Our intellectual curiosity is aroused by questions like, 'what does creativity mean to a teacher of history or engineering?' Our response has been to engage higher education teachers in conversation about creativity, in the belief that it is only through conversation that meanings can be shared and new understandings co-created. Our current perceptions of the problem are outlined below.

First, our problem is not that creativity is absent, but that it is omnipresent. That it is taken for granted and subsumed within analytic ways of thinking that dominate the academic intellectual territory. Paradoxically, the core enterprise of research – the production of new knowledge – is generally seen as an objective systematic activity rather than a creative activity that combines, in imaginative ways, objective and more intuitive forms of thinking. The most critical argument for higher education to take creativity in students' learning more seriously is that creativity lies at the heart of learning and performing in any subject-based context

and the highest levels of both are often the most creative acts of all. Our problem then becomes one of co-creating this understanding within different disciplinary academic communities.

Second, although teaching and designing courses are widely seen as sites for creativity, teachers' creativity and creative processes are largely implicit and are rarely publicly acknowledged and celebrated. Teachers are reluctant to recognise and reveal their own creative thinking and actions in the many facets of their practice. In the UK, the introduction of National Teaching Fellows² and institutional teaching fellowships which evidence and publicly reward individual teachers' commitments to teaching and innovation, and the establishment in England of over 70 Centres for Excellence in Teaching and Learning,³ which reward innovative and effective teaching teams, departments and institutions, is beginning to change this situation. We have a long way to go, though, before the unique creative contributions of every teacher are valued and recognised.

Third, although students are expected to be creative, creativity is rarely an explicit objective of the learning and assessment process (except for a small number of disciplines in the performing and graphic arts). Creativity is inhibited by predictive outcome-based course designs, which set out what students will be expected to have learned with no room for unanticipated or student-determined outcomes. Assessment tasks and assessment criteria which limit the possibilities of students' responses are also significant inhibitors of students' and teachers' creativity.

Fourth, for teachers whose motivation derives primarily from their passion for the subject, creativity only has meaning when it is directly associated with the practices and forms of intellectual engagement in their discipline. Many teachers find it hard to translate the generic language and processes of creativity into their subject-specific contexts. Conversely, many higher education teachers have limited knowledge of creative approaches to teaching, even within their discipline. Most higher education teachers are unfamiliar with the body of research into creativity and how creative-thinking techniques can be used to facilitate problem working. So the problem becomes one of growing awareness and understanding of the meanings of creativity in the discipline and of persuading teachers that teaching for creativity is no more or less than good teaching to achieve particular outcomes in disciplinary learning.

Fifth, while many higher education teachers recognise the intrinsic moral value of promoting students' creativity, they balk at what they perceive as the additional work necessary to successfully implement more creative approaches. Furthermore, any conversation about creativity raises many organisational barriers and factors that inhibit or stifle attempts to nurture creativity. Paradoxically, for some teachers these barriers are themselves catalysts for creativity.

It is hard to imagine a more difficult set of conditions to work with, and academics recognise that they will not make much headway with changing these conditions unless they can influence the behaviours of the organisations in which they work. It is not enough for teachers to overcome such organisational barriers through their own ingenuity and persistence; ultimately, organisational systems and cultures themselves have to be changed. Such changes have to be led through sympathetic, inspiring and energetic leaders. The problem of cre-

ativity in higher education is also one of leadership at many different levels. Our message to higher education leaders and managers is to seize the opportunity for leading higher education into the sort of world we are imagining.

In exploring the nature of the problem, it has been posited as teachers doing something for students to foster their creativity. But what if we were to turn this around and see it as a problem of teachers doing it for themselves in order to satisfy unfulfilled needs? For example, to work in different ways with students, to develop different sorts of relationships and engage in different sorts of conversations to achieve different sorts of outcomes that they felt were missing or under-represented in the curriculum. There is evidence in many of the conversations we have had with teachers that these sorts of values and beliefs are an important source of inspiration and motivation for engaging in discussion about creativity in higher education. So perhaps our problem is also about satisfying value-based personal and professional needs in a higher education system that increasingly seems to ignore such things.

What sort of problem is it?

Apart from the obvious – a blooming big, complex and fuzzy one – our problem is a systems problem involving the thinking, relationships and actions of many participants and contexts. Checkland (1999) described two very different ways of viewing a system. The first perspective is an engineered system in which the entities, their relationships and the way they function can be defined, designed and predicted with accuracy. He used the term 'hard system' to characterise the thinking that is applied to the analysis, definition and understanding of the functioning of such systems. A hard-systems approach to problem solving attempts to define, analyse and resolve problems within a conceptual framework that relies on and seeks to create a highly ordered real world.

But, in socially constructed systems, such as that in which our problem is embedded, the very nature and complexity of human thinking, action and relationships defies such a rational and logical approach to the definition of the system and its behaviour. Checkland used the term 'soft system' to describe this type of situation. A 'soft systems' view of the world accepts confusion, diversity and complexity and uses this as a resource and a source of inspiration to orchestrate enquiry and grow new learning. Soft systems theory does not see all new perspectives as problems to be solved. Rather, it sees different perspectives as routes that can be taken to open up and examine possibilities.

Checkland (1999: 154) identified two different types of problem that systems thinking might be used to resolve. Structured problems are those that can be explicitly defined in a form that implies a theory might be developed to enable them to be resolved. These are amenable to hard systems thinking. Unstructured problems manifest themselves in a feeling of unease but they cannot be explicitly stated without appearing to oversimplify the situation. These are more amenable to soft-systems thinking.

Solving problems that can be defined in hard systems terms, through proven techniques, strategies and theories is a feature of many disciplinary learning

contexts, but the problems associated with teaching and learning, including the problem of how we can improve the conditions for creativity in higher education, requires a soft systems approach. The Imaginative Curriculum project has, through its growing network of interest, created a social system for learning about what creativity means and how students' creativity is enabled in many different higher education contexts. Through this process, we are harnessing our collective imaginations and intellect to find ways of changing higher education to make it a more creative place.

We will either find a way, or make one.

Hannibal

Why are we working on this problem now?

We believe that this is a challenging problem that needs to be explored now. UK higher education is in a process of inventing, or co-creating, a different system. The process involves all the agents (people, organisations, networks and other collaborative associations) continually interacting and influencing each other in ways that cannot be conceived or explained in detail, but from which new forms of organisation, new relationships and patterns of behaviour emerge. Everything we see in higher education we have created, our imagination and creativity is there for all to see, yet rarely do we acknowledge its presence or effects. This is the great paradox of a society in transformation, and addressing this deficit is a central purpose of this book.

Higher education is a place where we try to understand the world in all its rich complexity and glorious detail, but it is also a place where we prepare students for a lifetime of working with their own complex issues and problems. An important theme developed throughout this book is that to grapple with complex problems requires complex learning and thinking that draws on all of our mental and emotional capacities and capabilities. Ron Barnett (2000) sums it up well when he proposes that higher education is faced with preparing students for a supercomplex world: a world in which individuals have to continually reconstitute themselves through their lives. These ideas are reflected in the sorts of personal qualities, abilities and capacities that employers seek when they recruit graduates. Here is concise synthesis of the sorts of things employers want in their graduate recruits:

research over a quarter of a decade finds a broad consensus about the attributes that employers expect to find in graduate recruits. They should exhibit the following: imagination/creativity; adaptability/flexibility; willingness to learn; independent working/autonomy; working in a team; ability to manage others; ability to work under pressure; good oral communication; communication in writing for varied purposes/audiences; numeracy; attention to detail; time management; assumption of responsibility and for making decisions; planning, coordinating and organizing ability.

(Pedagogy for Employability Group, 2004: 5)

Higher education is full of intelligent, creative people and the professional act of teaching, with the significant autonomy attached to this role, provides fertile conditions for people to be creative in order to promote students' learning. But many teachers do not take advantage of this opportunity. All too often they prefer to replicate well-tried methods and designs rather than experiment with more imaginative but riskier, perhaps less comfortable, ways of doing things. The constant pressure for greater efficiency and cost effectiveness, increasing levels of personal accountability, quality assurance and peer review systems that favour conservatism, and resistance in colleagues to anything that involves doing things differently, are just a few of the things that can inhibit our individual and collective creativity. In fact, when we get down to thinking about it, the organisational and professional worlds we inhabit are full of conditions, beliefs, attitudes and practices that constrain our ability to be creative. We can't escape the problem! Yet in spite of these seemingly unfavourable conditions, many higher education teachers invent new strategies, designs and materials to make a difference to the lives of their students every day of their working lives.

The book

We are exploring the idea of creativity in higher education from four different but inter-related standpoints: contextual, perceptual, practical and conceptual. The first three themes create the organisational framework for the book while the fourth runs throughout.

The book begins by examining the contemporary social, educational and organisational contexts within which our discussion of creativity in higher education is located. Richard Smith-Bingham provides a policy perspective on creativity and the key role of education in promoting a more creative society; a theme which is continued in Anna Craft's excellent synthesis of the policies and work being done on creativity in schools. Paul Tosey sets us off on our exploration of creativity in higher education by examining universities as complex adaptive systems through which creativity emerges through every-day social interaction and conversation. Paul locates creativity in universities in terms of a change paradigm and concludes that, 'The spaces for emergence in HE currently seem ill-matched to the issue of change that appear most urgent to address'.

The stepping-stone to advancing teaching and learning practices is to develop and elaborate our understanding of creativity. The second part of the book synthesises the results of a number of research studies that have been undertaken within the Imaginative Curriculum project. Martin Oliver, Chris McGoldrick and Margaret Edwards describe studies in two universities aimed at understanding creativity from the teachers' and the students' perspectives. Marilyn Fryer describes the results of a survey of views on creativity conducted within the community of English National Teaching Fellows, and Norman Jackson and Malcolm Shaw develop a subject perspective on creativity based on the views of academics in four disciplinary communities. The quintet of studies is completed with Ruth Dineen's account which combines teachers' and students' views in

the field of Art and Design, a field that actually does value and celebrate creativity. An important conclusion from these studies is that academics appear to share beliefs on the main features of creativity in the higher education teaching and learning contexts, although how these beliefs become operationalised varies enormously across the disciplines.

The final section of the book turns to the practicalities of designing programmes and learning environments, teaching and assessments that develop students' creativity and enable them to experience being creative. Chapters in this part of the book are supported by the Curriculum Guides and other resources that can be found on the Imaginative Curriculum website. On the site, Norman Jackson and Christine Sinclair describe their search for an appropriate pedagogy and provide a map of resources to underpin a strategy to aid students' creative development. The theme is developed further by Caroline Baillie, who describes some of the techniques that might be used to stimulate creative thinking and draws out the learning gained from an experiment to develop the facilitation skills of higher education teachers. Assessing creativity is the most contentious, contested and poorly understood aspect of creativity in higher education, and John Cowan tackles the issue in his own highly individualistic style, providing us with novelty that may perhaps influence the domain. His strategy for integrating the construction of meanings, formulating and evaluating standards by students and tutors points us in a direction that could spark a much-needed assessment revolution! Tom Balchin fans the flames of revolution with research-based insights into the idea of consensual assessment.

In the penultimate chapter, James Wisdom considers how we might give more support and encouragement to developing creative teachers and valuing the contribution of creativity to the higher education teaching and learning process. In the final chapter, I try to draw together some of the themes that have emerged, outline a systems perspective on teaching environments to support students' creativity and elaborate some principles for the design of teaching and learning environments to promote students' creative development in higher education.

Finding our creative voices

So far we have avoided trying to define creativity, but definitions contain ideas that can inspire and it seems appropriate to introduce one here. I particularly like the one proposed by Dellas and Gaier (1970), which suggests that personal creativity is the ability to use imagination, insight and intellect, as well as feeling and emotion, in order to move an idea from its present state to an alternate, previously unexplored state. The idea of 'moving an idea from one state to another' captures my imagination and seems to me to lie at the heart of our intellectual and practical enterprise. But movement requires decisions to be made and energy, imagination and skill to turn an abstract idea into concrete reality. Covey (2004) provides us with another inspiring view of creativity as something that we have the freedom to choose to do, or not to do:

Between stimulus and response there is a space.
In the space lies our freedom and power to choose our response.
In those choices lie our growth and our happiness.

Covey (2004: 4)

The act of creation or re-creation is the purposeful process of exploration. Russ Law (2005) has coined the term 'explorativity' to embody the state of mind and being that enables us to overcome feelings of inertia and helplessness, and of opening the way to a more rewarding existence, by the development of attitudes, approaches and practices that harness the potential that each of us has in our own way. To overcome inertia we need to be inspired: our imaginations need to be fired and our curiosity aroused. I encountered such a moment when, browsing in a newsagents on Liverpool Lime Street Station, I came across Stephen Covey's book, *The 8th Habit: From Effectiveness to Greatness*. My curiosity aroused, I thumbed through the book to find his eighth habit: something that he called 'voice' – 'the unique personal significance we all possess – the voice of hope, intelligence, resilience and the limitless human potential to effect positive change'. I read and was captivated by the idea that:

voice lies at the nexus of **talent** (your natural gifts and strengths – [including creative talents]); **passion** (those things that naturally energize, excite, motivate you); **need** (including what the world needs enough to pay you for [and the needs you identify and feel a need to fulfill]); and **conscience** (that still, small voice within that assures you of what is right and that prompts you to actually do it).

(Covey, 2004: 5, with my additions)

This set of ideas and meanings connects in a profound way the idea of self-identity with the abilities, attitudes, motivations and purposes so necessary for creativity within an ethical framework that guides personal decisions and actions. This representation of voice seemed to me to embody the essence of what underlies and gives expression to our unique personal significance – our creativity. It ultimately defines our individual identities as people, be it as students, teachers, managers, administrators or members of support staff, and underlies the core moral purpose of education. This book is about trying to give expression to the individual and collective voices that make up our world of higher education.

Notes

- 1 The Imaginative Curriculum project was launched in January 2001. Information about the project, the activities of the network and the resources produced can be found at: www.heacademy/creativity.htm.
- 2 Information about the National Teaching Fellowship scheme can be found at: www.ntfs.ac.uk/.
- 3 Information about the Centres for Excellence in Teaching and Learning (CETL) can be found at: www.hefce.ac.uk/learning/TInits/cetl/.

Forces with a Vengeance (2003); Lao Tzu's *Tao te Ching* (1963); Price and Shaw's *Shifting the Patterns* (1998); Wheatley's 'Leadership and the New Science' (1999).

- Acknowledge, respect and build on someone else's creative idea before you decide to knock them down: as Yeats wrote, 'Tread softly because you tread on my dreams'.¹⁰

Having read the list, note the objections that arose whilst reading them – these are likely to embody the key 'unwritten rules' that are interfering with emergence. Aspects of anxiety and lack of time may well feature in these. And if you found no objections, then you are probably already adept at enabling dreams and mistakes to give rise to novel forms, and will have understood, better than I do, the applied dimension of what I have just been talking about. Please carry on interfering.

Notes

- 1 I heard this story during a training course in Neurolinguistic Programming offered by PPD Ltd. It originates in work by Grinder and DeLozier (1986), though does not appear in publication to my knowledge.
- 2 www.santafe.edu/
- 3 See also Zimmerman's article for an introduction to this model www.plexusinstitute.com/edgeware/archive/think/main_aides3.html.
- 4 'The team advises that the University consider more clearly defined methods to monitor variability with respect to the operation of quality assurance processes and the assessment of students across the University since some of the variation noted by the auditors appeared to be mainly the product of inherited custom and practice and insufficiently informed by University's published guidance on academic standards and quality management' www.qaa.ac.uk/reviews/reports/institutional/Surrey04/summary.asp
- 5 Online, Available at: www.qaa.ac.uk/reviews/reports/subjReports.asp?subjID=9#S.
- 6 These general problems of the relations between conscious and unconscious processes are the subject of much writing by Gregory Bateson (Bateson, 1972; Bateson and Bateson, 1988).
- 7 I am indebted to Professor If Price, Sheffield Hallam University, for his thoughts on this issue – which emerged, incidentally, through a chance conversation.
- 8 www.som.surrey.ac.uk/learningtolearn/
www.escalate.ac.uk/index.cfm?action=resources.project&ID=1707.
- 9 At which time the Master's programme was within this institution's School of Educational Studies.
- 10 From 'He Wishes For The Cloths Of Heaven', *The Wind Among The Reeds* (1899).

5 Students' experiences of creativity

Martin Oliver, Bharat Shah, Chris McGoldrick and Margaret Edwards

Introduction

This chapter describes the first of two studies in two universities undertaken within the Imaginative Curriculum project whose purpose was to illuminate the way in which students and staff experience and understand creativity. In this chapter the views of students are examined.

Methodology

Given the lack of an established, commonly agreed framework for interpreting perceptions of creativity, an exploratory approach was adopted. Semi-structured interviews were conducted at two sites (the same institutions as studied in Chapter 6); in addition, one focus group was conducted using the same structure, to see whether interaction with other students would lead to further elaboration. Students were invited to explain what they thought 'creativity' was, to contextualise this by identifying and describing creative people or things (both within and outside of formal education), to discuss their experiences of creativity in the curriculum (and particularly assessment) and to speculate on whether they thought their course would develop their creativity in ways that might be useful to them in later life. A total of 25 students were interviewed (including four as part of the focus group). They were sampled so as to represent a broad spread of disciplines (including Anthropology, Architecture, Arts, Biomedicine, Clinical Psychology, Earth Sciences, Education, English, Fine Art, Geography, Humanities, Library and Information Sciences, Medicine, Molecular Biology, Psychological Sciences, Social Sciences and Urban Design). Participants were selected so as to provide an even distribution by gender, age (classified as 18–21 or mature; there was a slight imbalance towards the 18–21 age range) and year of study (first, second, third or post-graduate). The interviews were recorded and transcribed, and a constant comparative categorisation carried out to analyse the data. The categories that emerged from this are reported in the following section.

The study

Conceptions of creativity

When asked, many students found it hard to explain what they thought creativity was. Rather than giving one coherent, integrated account, they typically drew on a number of different discourses, often presenting contrasting or even inconsistent positions at different points in the interviews. Several attempted to dismiss their inconsistency by saying they were talking 'rubbish' or by being apologetic; others were hesitant in their responses.

Creativity was discussed not just in terms of what it was, but also in terms of how it worked or how 'intense' it was. These ideas have been grouped together, to show the contrasts that were present. Rather than being explicitly defined, creativity was typically described using ideas such as:

- *Freedom from routine* – not being bound by conventions, schedules or expectations.
- *An expression of imagination* – this was often associated with the idea of creativity as personal; it was also used to describe things that were done or invented 'in the head'.
- *Personal* – something that could only have been created by that person; linked to this was the idea that creativity was subjective.
- *Independence* – that it is associated with an escape from social conventions, rules or forms, and was thus primarily an act of individuals.
- *Risk* – something felt to be 'synonymous' with being creative.
- *Superficiality* – not always in a negative sense. This conception was primarily concerned with being free from having to justify decisions or creations.
- *Commonplace* – this suggests that everyone is creative, every day.
- *Infectious* – something that can be caught by being with others (teachers or students) who have it.

It was also felt that creativity could differ by degree.

- *Incremental* – this relatively common conception recognised a limit on creativity, suggesting that small improvements rather than a radical break with tradition are what should be expected. ('You can't be completely creative in what you do, cos there's a huge background to it, which you can only build on slowly.') This included the idea of bringing existing things up to date.
- *Original* – the sense that creativity was something more than just repetition. This was also associated with 'novelty', and the suggestion that what was created was in some way personal or a break from tradition, or with 'progress'. It was also associated with seeing a problem that others could not see, which allows new development to take place, or with serendipity, which prompts new connections to be drawn.
- *Radical* – the belief that something creative should be entirely new and original, being unique or 'groundbreaking', but certainly not 'obvious'.

The process of creativity was also discussed. These discussions drew on ideas such as the following:

- *Being struck by the muse* – 'something that you get at moments', outside of personal control ('you don't try and force it'), almost viral or like lightning.
- *Metacognition* – that being creative requires the ability 'to step back and look about what you've done, kind of a personal grace, almost.'
- *Escape from reality* – creativity was sometimes associated with a sense of detachment from day-to-day concerns; 'everything else leaves your mind and you're just in the moment.' Sometimes this seemed to be a side-effect; at others, this was presented as the point of being creative. This was generally associated with a sense of relief and with happiness.
- *Framed expression* – linked to the idea of incremental novelty, this conception suggested that to be creative involves working within some kind of framework. It suggests the idea of creating something that other people can recognise as being of a type. Where 'rules' were mentioned, these were usually seen as negative, in the sense of being rule-bound.

Nature or nurture?

As well as talking about what creativity was and how it worked, students described how they thought people 'had' it. Broadly, three models of creativity were used:

- *Innate* – something inherent to people, often something that is intuitive rather than (like a muscle) something to be activated or exercised. The capacity for creativity was not described as being the same for everyone, however.
- *Nurtured* – something that can be developed, perhaps through exercises or upbringing. One student suggested that creativity was all nurture, and that 'people can learn anything at all if we want to'.
- *A potential* – this combined nature and nurture by suggesting that people had some upper limit to their capacity for creativity, but that they could work towards achieving this. This was presented as a process of discovery.

These different models have implications for pedagogy. If students see creativity as innate, it makes little sense to teach it; if they see it as potential, then they may excuse themselves (or others) for poor performance on the basis of biology rather than effort. Nonetheless, they did see creativity as being associated with academic success – or at least, with success in some academic disciplines.

I do think it is associated with intelligence. I think creative people are bright people. I don't think that all intelligent people are creative. But I think that all creative people are intelligent. I think you can be a professor of biology but not be necessarily be creative. But I think that if someone who's fantastic at the arts, or the music or drama or what have you I think, I would say, it was given that they were intelligent but not the other way around.

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The conception of creativity as something that can be nurtured is where the notion of pedagogy becomes most important. Even here, however, the scope for teaching as a kind of intervention was seen as limited. Far more important, several students felt, was age. This reduced the value of any planned intervention in favour of deterministic, typically biological changes. However, students were not consistent on how they felt that things like age influenced creativity:

I think it's harder to be creative when you're younger because you're not sure enough of yourself and I think its confidence as well to be creative. And I think that when for example you're a teenager or late teens any way of standing out is bad and being too creative is bad you know, you just want to be the same as everyone to fit in.

I think all children are quite creative and kind of exploratory.

This inconsistency may result from the differences described above about what 'creativity' is. Where creativity was believed to be amenable to development (of a non-deterministic kind), study skills and other techniques related to learning were mentioned, but these were not considered to have great impact. Far more important, students felt, was wide life experience.

If you are good at learning, you are more likely to take on new information and you can use that to expand your creativity. But it's not that much of a difference because there is a lot of creativity from the travelling and just experiences that's the main thing but there's a little bit from learning.

These perceptions raise questions about whether students will see any value in courses that claim to be about the development of creativity.

Creativity and role models

Since the concept of creativity was understood variously and used complexly by students, they were invited to identify and discuss individuals (both from within and outside of academia) whom they believed to be creative. This was intended to help them to elaborate the notion of creativity through reference to specific cases.

Outside of academia, an incredibly broad range of people were described. These included family, friends, sportsmen, musicians, people in the media and so on. The explanations offered were equally diverse, including:

- Being subversive, for example by rejecting convention.
- Not having had a traditional upbringing (so that their creativity arises from the lack of 'fit' with the dominant culture).
- Being able to 'read' social developments, so as to predict (and then influence) emerging trends.

Within academia, examples often focused on key figures from a field (Darwin, Einstein, Wegener, Hawking, etc.); such people were singled out for the 'leap' they made. Creative academics were also described in terms of creative pedagogies, such as making insightful but surprising links between areas of content. (The relationship between creativity and teaching is considered in more detail later.) However, there was a contrast between creativity and students' perceptions of academic professional identity. For example, a Medicine student suggested:

If you've got someone who's quite dogmatic or someone who's only interested in basing things on an evidence and research basis it's just not going to happen.

Students made it clear that it was easier to assess the creativity of the dead, since there had usually been more time for their contribution to be recognised and valued.

Additionally, some students made it clear that, although such individuals might serve to exemplify what it meant to be creative, they were not 'role models' in the conventional sense because their example rarely inspired action.

Watching something about somebody who is creative and then thinking, wow, they are amazing! But then it doesn't really normally go further forward. I kind of think wow, that day, and the next day I'm like yeah but I've got to do all this stuff. I think for me to suddenly be creative I'd have to [...] have a different lifestyle, so it's not going to happen. Not in the sense of being really creative.

Creativity outside of study

Another way of eliciting examples of creativity from students involved asking them about creativity outside of the context of their studies. The participants found this both easier and more positive than their discussion of creativity within the curriculum. Some comments identified things that students felt were creative. These included artistic activities (music, drawing, film, poetry, acting, etc.), cooking (when varying or working without recipes), competitive sports (focusing on tactics and out-manoeuvring opponents, or receiving cups, medals and awards), running a small business, making money, home improvements, playing practical jokes and so on.

I'm quite creative in ways to get money. I mean I hate working. I hate work. No, I'm not lying about that. I hate working in pubs or offices or anything like that. And recently I've been doing the medical trials and stuff like that, so I get money for like sitting on my arse basically. [Laughs]

I'd say my housemate Caroline is very creative because she plays practical jokes on my next door neighbours. Like putting gnomes in their garden.

The arts were so dominant as a point of reference that some participants felt the need to make their awareness of other contexts for creativity explicit.

Creative is not just arts things.

Other comments were concerned with things students felt helped with creativity. These included physical exercise (as a way of reducing stress), being with creative people and reading or watching something inspiring. Some students suggested that study pressure was squeezing activities such as these out, either because it took up too much time or left students feeling tired. With cooking, for example, 'I'm busy and tired I don't want to experiment, I just want to do something that is simple and quick and done for me.' Creativity was seen by one student as something to be 'indulged'; it was an extra, and life and study would survive without it.

Doing the degree appears to be about creating space rather than creative space.

There were also examples that focused on social or cultural contexts. One student talked about 'countries where it is less kind of regimented' in formal education, for example, citing pressure to perform for relentless examinations as something that impeded children's ability to develop their creativity. Others discussed friends and family, particularly the influence of parents, suggesting that being around people who were creative encouraged or inspired personal creativity (almost like a virus). Common to many of these examples was a concern with 'whether creativity is valued or is not valued' by those around you.

Motivation

The interviews were often animated, sometimes passionate; the topic was emotive, and students provided a rich picture of the ways in which creativity and motivations interacted. There were, for example, diverse reasons why students sought to be creative. Some concerned personal expression; others, competition or ambition. Some suggested that creativity arose from situations, such as problems that had no obvious solution. Other reasons were less expected, but entertainingly frank.

Money makes me creative.

Getting no sleep, drinking lots [laughs]. Cos in the middle of the night I find that I'm most creative. And alcohol induced I'm most creative.

Predominantly, however, it was felt that being creative made things more interesting and more satisfying, suggesting a positive link between experiences and creativity. This was not universal, however; some students saw creativity (and

the expectation or valuing of creativity) as a source of great pressure, leading to anxiety and requiring courage to overcome.

Anna used to introduce her own ideas into essays and then she would get a first, whereas I always felt frightened to do that so I didn't really do that very much.

There's an infinite amount of possibilities; it's really, really daunting. [...], I'll do whatever I want and it might be something completely different, which is incredibly satisfying but it's terrifying as well.

By contrast, though, some saw it as comforting, almost therapeutic, or at the least, escapist.

When I was about 14, I used to write a lot of poetry. And I wanted to be creative because it helped to understand a lot of what was going on in my head. And to get that feeling down on paper in that kind of way helps you to release feelings. [...] I guess it kind of gets you away from reality and provides this fantasy land that's just a break from normal life.

Students talked about being scared, feeling inadequate and even being concerned about becoming socially alienated. They also pointed out that when experiencing such feelings, or when feeling unhappy or depressed, people were less likely to be creative.

I think people are happier when you don't deviate too much from the norm. Because creativity can sometimes be stuck together with being eccentric and being a bit bizarre and sometimes [people] don't like it when you're too creative. It can be threatening I think for other people who aren't as creative.

Creative teaching

Students explicitly discussed kinds of teaching that they considered to be creative and, in relation to this, identified things that they felt limited their scope or desire to be creative themselves.

Some comments were simple suggestions for teaching techniques that could be used to provide a contrast to current teaching. (Such contrasts typically portrayed current teaching as transmissive and dull; however, in context, it seems likely that this is a rhetorical description rather than a judgement about their courses.) Examples of techniques included role playing (by the teacher, not the students), debates and creating posters that were then presented to the class or displayed in a public place.

Students on vocational courses pointed to work placements, often as an explicit contrast to their academic study. They identified the people they encountered and the problems that arose in that situation as requiring the new solutions

to be created, or existing ones to be adapted; it was also suggested that personal style could be expressed in such situations in a way that was not always possible within the formal educational component of the course.

How am I being creative in my course? Well not academically, but we do [...] work three days a week, so when I'm at work I'm working with [clients]. Then you are being creative because you are tailoring an intervention to them and the changes that happen throughout time. So you're constantly modifying. It's not really creative because to some extent there is a protocol. I guess I'm most creative when I've got the protocol and I put a bit of myself into the [work] that I'm doing.

Some conventional forms of teaching were also felt to support creativity. These were inevitably dialogic, and focused on opportunities for discussion that addressed students' current understanding or beliefs. Some students did talk about free-for-all ideas generation sessions such as brainstorming, although there were also reservations about these:

Everyone likes that. And you feel free to say whatever you want to say without having to back it up so yeah so that's sort of being creative. [...] Just thinking I can just say something, it's my idea, it's, maybe it's a bit off the wall and it isn't substantiated and in that informal setting you can do that, but [it's] nothing you would ever hand in on paper.

Generally, though, students discussed things with more obvious structure and purpose, akin in many ways to the conversational model of learning proposed by Laurillard (1993). Seminars and tutorials were mentioned several times, for example. One-to-one tutorials were felt to be particularly valuable, since there was scope to try out ideas without worrying about how peers might perceive you. Informal group work and projects were also identified positively, as were fieldwork, case studies and other situations in which the discussion focused on artefacts or situations. Other comments concerned qualities of the teacher, rather than techniques. For example:

If a teacher is passionate about what they are talking about, what they are lecturing on then that really inspires the pupils I think.

Other things that were identified seemed to fall between values and techniques – providing encouragement, for example, giving examples or offering feedback. Whilst these are all techniques, it was the *use* of these (rather than just their existence) that was stressed. These were valued not just because they were present, but because they were introduced by the teacher in response to students' needs in an attentive, supportive way.

In addition to these practices that either are creative or which are felt to support creativity, students identified many things that limited or inhibited

creativity. As before, some of these point to a perceived contrast between creativity and acceptable academic work:

Our course is widely known to be academic, consult the literature, base your practice on the evidence, bang, bang, bang, tick all the boxes, thank you very much. So my view of our course is that it is a conveyor belt.

Several comments described similar situations, perhaps best summarised as 'rule bound'. It was not even that creativity was absent from these courses – however, it could be perceived as 'token' creativity, or creativity as a reward for enduring the 'proper' part of the course, which simply served to highlight by contrast the limitations on creativity within the curriculum. Other reasons tended to be more prosaic. Time, unsurprisingly, was mentioned repeatedly. For some, this meant that the schedule of the course meant that they could not wait for creativity 'to happen'; instead, they had to perform to deadlines (of which they generally felt there were too many) or to apparently arbitrary rules introduced for the convenience of the teacher, whether or not they felt inspired.

My deadline would be my deadline, it would stop when I felt that I was finished, or I felt that I was happy, rather than because I've got to stop this piece of work now, I've got to wrap it up, because I've reached my word limit, or because the deadline is tomorrow and I've got no more time.

For others, this concerned the intensity of life, so that time cannot be set aside to be thoughtful and reflective. It was this sense of pressure, of being 'stressed out', that they felt inhibited their creativity, constantly forcing them to consider practicalities and details. As one student summarised, 'you need time and space in your mind to be creative and if your mind is full of studying and this that and the other then there's no space for it.'

Failings of lecturers were mentioned, but not extensively. If a lecturer was not inspiring, this would not prevent students being creative in their own studies (see below), for example. However, lecturers who were 'dogmatic' or rule-bound were felt to limit students' capacity to express their creativity.

Creative study

Just as students described creativity in their teachers' practices, they also discussed their own. They deemed this to be particularly important, since they felt it was learning, not teaching, that was central to their academic success; bad teaching might not inspire, but it did not prevent learning.

One particularly common strategy used by students involved making links across different contexts – for example, by applying principles learnt when studying a different discipline, by contrasting contemporary and historical perspectives on a topic, by expressing personal perspectives (something contrasted with accepting facts), creating artistic designs or images as part of study and so

on. One student highlighted the whole area of interpreting texts as a creative endeavour:

I think reading books means you go off into this other world of the book, which is not reality, so you are using the creativity of the writer. And also when you are writing about books you have to think about ideas about things and ideas about the book, is being creative.

Books were not the only resource deemed to help creativity; case studies and videos were mentioned too. The Internet was also mentioned, as much for the thought-provokingly unpredictable results of search engine rankings as for the volume of material available. Such comments did not tend to show the discriminating selection of resources that many information literacy courses now seek to inculcate, however (e.g. SCOUNL, 1999).

The Internet, I know it's quite general to everywhere but I think it can help to be quite creative. [...] For example, the other day I went on the Internet to do some research for an essay and I don't know, I typed in mirror, because that's what I'm doing my essay on, and there's like loads and loads of sites on 'mirror'. And I don't know it's just a fountain of knowledge really.

The environment in which study took place was felt to be important. Several students stressed the importance of comfort ('a big, comfortable chair or something'), and many identified 'distractions' such as music, exercise or a window to look out of as being important.

I think breaking things up is relaxing – I need a mix of physical and mental – that for me helps the ideas along.

However, other participants spoke of exactly the same distractions in negative ways; the key to this was in whether the student had the *choice* to distract themselves in such ways. Similarly, both being alone (because it provided space to reflect) and being with others who were creative (because this inspired) were mentioned as things that supported creativity. These two areas combined to highlight a problem in the design of libraries:

The architecture of the libraries – it doesn't work to be open plan – it's difficult to concentrate there. Talking things through – say new IT – can be a big help, but there are too few really quiet study areas where you can concentrate.

Although many students experienced limits or frustration over opportunities to express themselves creatively within their academic work, a few discussed the creative ways in which they 'played the game' of academic study. Some students talked explicitly about strategies for work avoidance, up to and including

the deaths of fictitious relatives. Others talked about how they created an acceptable image of themselves in order to progress, with one student admitting, 'I just basically lied on my UCAS form.' Students sometimes said they felt shame about such incidents, but some seemed to take pride in what they had achieved; they were proud of their creativity, even if they felt some guilt about deceiving tutors.

Creativity and assessment

Assessment has long been recognised as being amongst the most important influences on learning (Biggs, 1999). Unsurprisingly, it was also considered vital to discussions about creativity. Criticisms of exams featured strongly in the interviews. These were typically described in ways that linked them to transmissive, rote-learning pedagogies (or at best to the application of standardised protocols), and these discussions stirred up considerable emotion.

Having exams, for goodness sake, it makes me so mad, most people on my course have an average age of about 28, and that, I think I should mention that, that we have to go into an exam and give them back what they have given us in a year of lectures. I don't see why we have to do that when we've proved ourselves academically. And that is something as well because you just regurgitate information. Waste of time.

My learning environment is that it is pretty much one, two, maybe three ways of approaching this but only three. So if you choose one of them within a framework you're alright. If you don't tell us about one of these then it's wrong.

Essays were felt to be better than exams, since they were seen as offering greater opportunity for personal expression. (This was not believed to hold true for essays under exam conditions, where time pressures were felt to limit opportunities for this.) It was suggested that students who valued creativity would opt for essay-based courses because of this. Other students only partially agreed, suggesting that although essays permitted self-expression the academic context limited opportunities to use imagination, because 'there is a set way to do it'. (This sense of frustration at having to conform to expectation pervaded many discussions of assessment and will be returned to below.) Some also felt that markers' expectations of authoritative writing meant that they could never move beyond exploring existing arguments and into creating their own interpretations:

The idea of being creative when your trying to write an essay or something that you don't know about is very difficult because [...] you don't know enough about it, yeah. I think you need to be a bit of an expert perhaps to be creative, because you have to be able to draw a lot of things together and appraise them and then do something a bit more radical.

However, essay-based coursework was felt to support creativity through collaboration, as some students discussed the use of peer criticism to improve their work.

There were two broad reasons why exams were seen as a problem. The first relates back to one of the conceptions of creativity, in that such scheduled assessments were seen as being at odds with being struck by inspiration.

It's also about spontaneity isn't it? So you can be creative and you've spent a month revising and your head is full of crap.

The second reason concerned forms of assessment. Students did not suggest that their work should not or could not be assessed, but they did express the opinion that alternative forms of assessment would be more appropriate. Suggestions included, for example:

- Being observed with clients or in the workplace, for vocational subjects.
- More coursework or project-based assignments.
- Expressive elements such as creative writing, graphic design, image/video/animation production, and so on.

Creativity, academia and the disciplines

In many students' comments there was a sense of frustration at a perceived conflict between being creative and being 'academic'. Many of the students experienced academic values as being controlling, conformist and inflexible, more concerned with producing 'clones' than supporting new ideas. These students framed their experience in terms of rote learning, spoon feeding and regurgitation.

Such criticisms are easy to sympathise with, but there were also comments that revealed a different side to students' experiences. There were complaints about being bound to topics and ideas raised by previous work, being restricted to using certain methods or protocols and being forced to use evidence rather than imagination.

In my research project I'm addressing new questions trying to devise a theory but again it's tightly linked to what has gone before so I think you're stunted a bit. If you too creative that you are told that there's not enough basis to what you're saying and that you're talking rubbish.

This class of comment suggests a railing against *discipline*, the sanctioned forms of practice and participation that characterise particular academic 'tribes' (Becher, 1989). What this implies is that if Becher's characterisation is correct (and it is certainly widely accepted), then some students are opposed to what it means to be an academic. Without needing to resort to a value judgement, this simply reveals that there is a mismatch between what some students want and what higher education is currently like. (The politics of which party should be expected to concede ground are outside the scope of this chapter.)

It is important to point out that not all students were dissatisfied with their experience of academia. Indeed some came to appreciate the creative endeavour of academic work, even if they tempered this with the suggestion that it was somehow not for them:

The more I learn about theories, even [...] strict academic ones are quite creative as well, the thoughts that they had.

Geography is a discipline, it is very progressive and because of creativity, a hundred years ago, geography meant just exploring and mapping and through a process of creativity someone has decided that has to change [...] That's how it spread out into so many different disciplines from a very limited spectrum of things to encompassing so much. [...] So you can get cultural geography, you can look at ethnicity and how that affects people's perceptions on life and the way they live. And similarly it has also been pushed on the other side, the physical side of geography more. To more imaginative ways of looking at past, to try and reconstruct histories of climate and things like that. And that's the kind of creativity that keeps the discipline going and keeps it a worthwhile discipline, but that's the kind of thing that comes from the best geographers, not from undergraduates.

Students' experiences were, in fact, complex; their perception of the value of creativity depended on the teachers they had, their own history and the subjects they were involved in. Generally speaking, there was a perception that some disciplines were more creative (and consequently more valuing of creativity) than others; unsurprisingly, this was portrayed as a contrast between Arts at one extreme and abstract, rules-based subjects like Mathematics at the other, with Humanities being relatively creative ('it's based on one person's experiences') and the Sciences as well as many vocational subjects, such as Medicine or Engineering, being relatively constrained, rule-bound and 'more about learning facts'. Interestingly, one student suggested that this hierarchy of control and conformance explained the unequal value attached to different subjects:

Dance and drama – you know, they're not necessarily academic subjects, they're certainly much more creative, but they're not given the same value as an academic course.

However, even within 'uncreative' disciplines, some students admitted they found ways to be creative, such as developing short-cuts or quicker approaches that helped them in their work.

Creativity and students' identities

Many of the discussions about creativity touched on how students see themselves, how they would like to be seen or how they thought academics would like them to be. Such concerns have a direct relevance to curriculum designers;

although some students would be sceptical that creativity can be 'taught' (see 'Nature or nurture?', page 45), studying for several years was felt to influence how students saw themselves.

I've been doing my course for over two and half years now, so I guess it's involved me being creative and it's involved my mind developing so it's helped me become the person I am now.

As with all parts of this study, there were differences of opinion about how positive this experience was. Some students saw themselves as developing, increasing their capacity for creativity. For others, it was a struggle, confusing and unsettling even though it was productive.

It's basically just conflicting personalities in one massive building. And it can get really jarring and you know its really exhausting. [...] I remember in the first year, why aren't I more like him, or why aren't I more like her. [...] The flip side of it is, that it is incredibly satisfying when you... I mean, it's really character building, when you get, you find your, your, your voice.

For some, academic study was a process through which this aspect of their personality was ground down.

I don't think they want us to be radical. Clones of one another. We're all the same, people who are selected for the course. We're all very similar. Similar backgrounds, no-one's slightly wacky. They've selected people who are hard working, conscientious, will meet their deadlines, which are reliable, which isn't to me necessarily creative people.

The production of particular subjectivities (such as, in this case, 'the creative student') is an area usually considered in terms of individuals' self-expression; here, however, the combination of teaching, assessment and ethos is intended to produce certain sanctioned subjectivities in others. Holmes (2002), however, has talked about the production of 'graduateness' as an emergent identity, considering how students come to make claims about their 'graduateness' in a way that others (such as potential employers) choose to affirm or deny. His analysis identifies four kinds of outcomes to such identity-forming processes:

- Agreed identity (claimed and affirmed by others).
- Failed identity (claimed, but not affirmed).
- Imposed identity (not claimed, but affirmed by others).
- Indeterminate identity (neither claimed nor affirmed).

This provides a constructive set of analytical tools to explain some of the claims made by students. For example, those who railed against the discipline of their course might be seen as having a failed identity as a creative student (in that they claim to be, but this has not been affirmed by their teachers), or even an

imposed identity (in that their teachers deny the relevance of their claims and instead affirm that they are something else, such as studious, wilful or lazy). This may explain some of the tensions experienced by students seeking to express themselves within the context of academic study.

Conclusions

Students' experiences of creativity in the curriculum are complex and often confusing. Participants typically drew on diverse, even inconsistent ideas about creativity to discuss their experiences, in some cases moving between incompatible positions in the same sentence. This suggests that creativity is something that students are not used to discussing and quite possibly lack a shared common frame of reference to interpret.

Nonetheless, the range of discourses used does throw some light upon the ways in which they might approach 'creative' learning. The aversion to constraints and deadlines, the denial of responsibility for instigating creativity (e.g. discourses of infection or being struck), talk of subversion and the wish to be free from routine or constraints all point to a desire to challenge the structures of formal courses. This may be an attempt to escape from the duties of study or disciplines of higher education, but it could equally reflect the difficulty some students expressed in reconciling their creativity with the need to produce assessments on demand. Some ideas (such as creativity within contexts, or as being incremental and commonplace) do fit well within structured notions of curricula, but generally, there seemed to be a desire for spaces within the course that were open to risk-taking, free from the need to justify decisions and where failure was an opportunity for learning rather than a problem.

The participants were able to discern things or people they felt were creative. However, these examples tended to operate as families with similarities, rather than as illustrations of some well-understood concept. Nevertheless, students were able to discern differences of kind (such as the nature/nurture discussion) and degree.

Although there were many students who gave examples of creativity in academic contexts, the picture that was painted in these accounts involved frustration, a sense of control and restriction, and a lack of value of creative endeavours. This was in contrast to their experiences outside of academia; interestingly, but worryingly, some students had come to understand this as a reflection that creativity was essentially different to 'academic-ness'. A significant majority of students had positive things to say about individual teachers, often without prompting, and lecturers were often identified as the things that most helped creativity; the problems they identified were mostly attributed to structures such as assessment conventions or the perceived hierarchy of subjects. Many were also able to identify opportunities to improve current practice, such as by the adoption of different assessment techniques.

Perhaps most interesting, though, are the tentative suggestions that even where creativity was not taught, not considered teachable and not valued in assessment, it was still relevant in defining how the students saw themselves.

The use of creativity as a discourse – currently so confused and inconsistent – becomes vital in this respect, since claims to an emergent creative identity can only be warranted if they can be articulated. In this sense, it may be possible that even a small change – helping students learn how to talk about creativity, particularly in the context of their study – would have an important effect, enabling students to lay claim to creativity in a way that currently eludes them within academic contexts.