



# Creativity and Curriculum Design : what academics think

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## Introduction

This report was commissioned by the LTSN Generic Centre with the aim of exploring a group of practising academics' perceptions of creativity in curriculum design and student learning. In May and June 2002, interviews were conducted with ten academics from Liverpool John Moores University, five from Sciences / Engineering, four from Arts / Humanities and one from Business Studies, which was described as '*something of a disciplinary hybrid*' by the respondent in this area. In addition, some reflections on their undergraduate learning experiences have been drawn from interviews with a sample of 1997-2000 Liverpool JMU Humanities / Social Science graduates (McGoldrick 2001).

The graduate sample was random, stratified by year of graduation and discipline. The academic 'sample' was not random. All ten academics have experience of introducing some form of innovatory practice in modules or programmes which they lead. They are imaginative practitioners who are enthusiasts for their disciplines, and for students and their learning. No statistical reliability or validity is claimed for their perceptions which do, however, reflect a number of other views within the relevant literature.

## Creativity : some important themes in the discussions

There are strong linkages between creativity and power within Higher Education (H.E.) and within the context in which H.E. is embedded. Resources for H.E., and differentiated resources for H.E.; the hegemony of particular political / educational discourses, including key skills/employability; management cultures and practices; professional autonomy; the discipline; 'knowledge', values, beliefs and curricula (explicit or implicit); the academic in relation to students (and vice versa), to colleagues, and others within and outside the university; issues of class, gender, ethnicity, cultural capital and social justice: all were among the strands creating a complex fabric in which curricular 'creativity' was perceived to be embedded.

Libraries are devoted to these contested issues so, in the manner of a part-glossary, part-summary, this brief section will only sketch in some of the main themes which threaded their way through all discussions in some form.

Most respondents were alert to what one described as '*the contradictions of creativity*'. All had experience of the 'massification' of H.E. in the late 1980s and 1990s and parallel neo-liberal concerns about control of public expenditure. The Dearing Committee (NCIHE 1997) confirmed that universities' unit of resource had failed to retain its value in the face of the increased student numbers of this period. More students - especially in the new universities - are now coming from deprived schools and Further Education (F.E.) Colleges and may well need considerable support to adjust to university-level work. Further expansion is proposed with a target H.E. participation rate target of 50% of the under-30s by 2010 (Blunkett 2001:14). Currently, the Government's plans for universities' financial support, particularly for the funding of this expansion, are opaque (*THES* 28.06.2002).

Perhaps in order to legitimate increased central control and a reduced unit of resource (Harvey and Knight 1996), there is, moreover, a 'heavy touch' quality agenda with emphases

such as accountability, maintenance of 'standards', value for money and measured 'outputs', and increased external 'quality' monitoring. Meeting these challenges represents a substantial expansion of academic time and ingenuity

Among the 'contradictions of creativity' noted by respondents was the promotion of creativity as a key quality in the enhancement of competitiveness within the global economy (Knight 2002:1 and Thrift 2000:696) at the same time as H.E. is confronting limitations on creativity in the related forms of resource constraints, space (principally in time and decision-making) and dominant management discourses.

Tait (2002) makes the valuable point that academics' creativity and the encouragement of student creativity demands 'space'. For most respondents, 'space' is currently at a premium for reasons of:

- inadequacy of resources (especially of human resources);
- time pressures and limitations on professional autonomy generated by 'normative constraints' (*idem* p.3);
- a more diverse student body.

Management practices and the values and beliefs which underpin them emerged as deep concerns in the majority of discussions. Trowler (2001 p.185) outlines some key features of 'managerialism' as applied to an H.E. context as follows:

*'an orientation towards the customer and the 'market' rather than the producer;  
an emphasis on individualism and an acceptance of the status quo;  
the management of change is seen primarily as a top-down activity with staff adopting a passive role;  
in education, knowledge and learning are conceived as being atomistic, mechanistic and explicit in character'.*

Managerialism is symptomatic of what has been described as an '*attempt to substitute a culture of market responsiveness for one of professional control*' (Anthony 1994:1) in public bodies such as the NHS, schools and universities. 'Market responsiveness' was not something to which respondents took exception in certain forms such as curriculum design which could enhance students' employability by the inclusion of certain knowledges and skills which are emerging as important in the workplace. But as one respondent expressed it: '*academics do not regard students as customers... it is not paternalistic to say that...in a university, the student is much, much more important than a customer – (a word) which expresses a relationship of some transience and superficiality...'*

Trowler (2002) raises the important question of disparities between the values of managerialism at 'centre' and the values of a body of practising academics. Inherent contradictions have been observed in organizations in quests for '*control v co-operation; authoritarianism v empathy; and competition and conquest v creativity*' (Knights and McCage 2001:620). What was evident in interview was that compliance with normative processes was not necessarily to be taken as '*evidence of inner conviction*' (Anthony 1994:5).

All respondents had responsibilities for modules and in some cases, also, for programmes. Some control over resources, a key source of power, is minimal at this level in the hierarchy. In the university, the heads of modules and programmes have the title 'leader'. Issues of power and leadership in the context of curriculum innovation provoked a number of discussions. One respondent was in a position of working within a 'team' led by an autocratic figure with deeply-ingrained and traditional views of the curriculum, and '*a personality which... shied from debate and change*'. Others generally worked within more open structures where debate and new ideas were encouraged.

There were questions about leading teams and team roles in creative work. A number of respondents identified behaviours which they considered to be characteristic of 'leadership' particularly in leading innovation. Some of these behaviours resemble those described in work on emotional intelligence and its role in leadership (Higgs and Rowland 2002:68 drawing on the work of Dulewicz and Higgs and others). In essence 'emotional intelligence' includes a

core of: self-awareness, emotional resilience, motivation, interpersonal sensitivity, influence, intuitiveness, conscientiousness and integrity (*ibid*). Respondents also made reference to the roles of the 'leader' and other team members in creative curricular design and implementation. In most teams, the team roles seemed stable as the work could be complex and team members tended to specialise. In others, roles could change. Fisher *et al.* (1998) and Tait (2002) discuss the work of Belbin in the development of thinking about team roles; McCrimmon (1995) argues that flexible team roles are more appropriate in developing creative work.

Within curricular debate, the workings within and between power and knowledge were of concern to almost all respondents. Contradictions could surface in issues relating to curriculum content and assessment – and could result in discord among colleagues and divergence from the curricula prescribed by external bodies. A particular manifestation of power / knowledge contest was described by one respondent as follows: *'students have to know about generally-accepted current paradigms in (the discipline) ...but – at the same time, develop the critical thinking ... to challenge them – even though (professional body) is only now getting round – it seems, reluctantly - to the emerging importance of x and y'*. What Foucault might term the 'insurrection of subjugated knowledges' (1980:80).

All respondents referred to aspects of the 'hidden' curriculum, though not all used that term. The 'hidden curriculum' has been defined as: *'those things (which are learnt by students)' ... which are not in themselves overtly included* in organizational arrangements and the formal curriculum *'or even in the consciousness'* of those responsible for them (Kelly 1982:8). As well as curriculum elements which were explicit in the programme literature, there was reflection in some programme teams about implicit elements and about how far the 'hidden' could (and should) become explicit – and to whom. It has been argued that *'teachers should be aware of and accept responsibility for (what is being learnt) in an unplanned way'* (Kelly *ibid* drawing on the work of Barnes). It was recognised by respondents that the 'hidden' could be a most powerful influence on student confidence, performance and creativity.

Considerations of 'cultural capital' and social justice centred on issues such as access to H.E., the curriculum, and employability (the capacity to gain graduate or diploma level education). The concept of 'capital' has been expanded from material to human resources and, more recently, to 'cultural capital'. Respondents felt that a more diverse student body meant fewer 'givens': *'not everyone has access to the same cultural resources in the sense of cultural identities based on different patterns of socialisation, language codes, and cultural artefacts'* (Brown and Scase 1994:28). Not all students and their families have the means to translate material capital to the securities of cultural and social capital. As two able, first generation graduates commented: *'university was a different world – I can't tell you'; 'I came from a working-class school - it was an eye-opener to meet people with the confidence just to talk ... (as on) the TV'*. Issues of cultural capital and social justice were resulting in significant curriculum re-design, resource re-designation and creative thinking.

A final consideration in this overview is what were variously described by respondents as encouragements of students' 'confidence', 'self-esteem', 'motivation'. Within the Skills Plus project (Knight and Yorke – report in progress), 'malleable self-theory' has been considered within the context of employability. Studies led principally by Dweck and Bandura (see, for example Dweck 2000, Bandura *et al.* 1996) have identified among students divergences in beliefs that intelligence and other capacities can be developed. The 'malleable self theorists' were more likely view effort as the way to achievement; to work to overcome difficulties and not to express helpless behaviours in the face of challenges. Further, these students were more ready to assist other students (their 'intelligence' was not thereby 'diluted'), to hold less-stereotypical views and be more willing to reflect upon unfamiliar ideas and situations. Conversely, 'entity theory' was associated with beliefs that traits such as intelligence are fixed ('I was never any good at') and more closed, stereotypical thinking. Dweck (1999) and Mueller and Dweck (1998) also illustrate how learning and teaching strategies may encourage malleable beliefs. No respondent used this terminology but, in practice, they sought to encourage 'malleable beliefs', in student learning generally and in the development of creativity. 'Confidence' and 'flexibility' were also perceived to be among the characteristics of creative academics. Perhaps there is another LTSN study here.

## Report outline

The inquiry broadly followed the lines of the LTSN's Commissioning Brief as follows.

How was 'creativity' perceived by respondents?

How was the curriculum conceptualised?

How did respondents perceive the process of curriculum design (focus on levels 1 and 3 of first degrees)?

How may creativity operate in the contexts of curriculum design, and designing *in* curricular opportunities for student creativity?

Which factors discouraged and encouraged creativity in curriculum design?

What value did respondents, the discipline and others such as professional bodies place on curricular creativity?

Note

*All quotations are shown in italics. Respondents' comments are not attributed.*

## What is 'creativity' ?

'For the moment', one definition has been proposed as:

*'Creativity constructs new tools and new outcomes – new embodiments of knowledge  
It constructs new relationships, rules, communities of practice and new connections –  
new social practices' (Knight 2002:1).*

For all respondents, 'creativity' had a quality of 'new-ness', but 'new' was not necessarily perceived as 'creative'. Two respondents carefully considered the quality of 'new-ness': for one, 'creativity' meant *'something highly original... which has far-reaching significance over time'*: they preferred to speak of some of their curriculum work as *'innovative'* (*'somewhat new'* but *'hardly earth-shattering – more of a germ of an idea or ideas from somewhere else which one adapts'*). As in many other matters, the issue of scale arose : the work of a Galileo or Newton might appear at one end of the 'original' and 'significant' spectrum; more *'modest achievement, for example, in curriculum design'* at the *'somewhat innovative, weakly original end'*.

However, wherein does 'originality' lie? Galileo and Newton (*'I stand on the shoulders of giants'*) drew on the work of predecessors and contemporaries. Shakespeare drew on the *Chronicles* of Holinshed and Plutarch; Mozart on the work of lesser composers. As a starting point to discussion about 'creativity' and curriculum work, it was agreed that 'creativity' was not pastiche or precisely-reproduced imagination, but that the once-new in particular contexts may imaginatively be re-constructed in others. We failed to come to an S.I. unit of 'creativity', but as a rough and ready sketch for our purposes, it was agreed that creativity meant:

new-ness (including new connections and re-formulations)

excitement (the Eureka! feature)

'usefulness' : it works – at least for the present : this may mean a well-designed building or stage-set or a theory;

aesthetic satisfaction; and

not having an unmoral purpose. There wasn't time fully to debate this point, but an essence of creativity was felt to be 'constructiveness'; innovative bullying and grand larceny were felt, ultimately, to be destructive;  
hard work.

In the view of French mathematician, Henri Poincaré,

*'... (mathematical creation) does not consist in making new combinations with mathematical entities already known. Anyone could do that, but the combinations would be infinite in number and most of them absolutely without interest. To create consists precisely in not making useless combinations and in making those which are useful and which are only a small minority. Invention is discernment, choice' (1970:80).*

Lest we should be misled into thinking that '*mathematical demonstrations...can interest only the intellect*', Poincaré continues:

*'This would be to forget the feeling of mathematical beauty, of the harmony of numbers and forms, of geometric elegance. This is a true esthetic feeling that all real mathematicians know, and surely it belongs to emotional sensibility' (idem 85).*

An ingredient of creativity which cannot be overstated is the work required to bring creative ideas into the being of a play, a piece of research, a creative curriculum. Edison's comment that '*genius is 99 per cent. perspiration, one per cent. inspiration*' is not an experience which is unique to genius. Bringing creative ideas to fruition is not 'merely' a matter of 'inspiration' and 'perspiration', however. Creativity, the new, the challenge to existing, comfortable orthodoxies, can mean physical death, in the case of Socrates, for example, or professional 'death' in the form of exclusion from academic respect. Jobs or promotion may be at stake, or this is what is feared. Another paper within this LTSN series refers to how junior academic staff '*might be less able to resist political pressures to conform*' (Oliver 2002:3) - and creativity - above all - is not about conformity.

The political pressures may come from within the university, from outside organizations such as QAA or professional bodies, or from within the discipline. As a noted geographer who challenged the then-dominant discourses in the discipline expressed it: (creativity is) '*always... a struggle over categorical limits, a guerrilla war fought against the silent majority*' (Olsson 2002:262). A prayer to Janus, who simultaneously could view pasts, futures and their contradictions:

*'Oh, to sin is to trespass. To trespass is to cross a boundary. To cross a boundary is to break a definition. To break a definition is to create. To create is to be different. To be different is to sin. To sin is to live in self-reference....*

*So, Janus. Help me to become a sinner. Let me understand how you break definitions. Show me how to erase what others see as irresolvable paradoxes. Teach me ... to transform contradictory images into coherent wholes' (idem 239)*

Creativity is darkness and light: it is not a path for the faint-hearted. What was noticeable in discussion about the core of creativity was the degree of convergence between Arts / Humanities and Science / Engineering (Yeomans 1996). The concept of creativity also appeared to be independent of gender, age, teaching experience and teaching qualification. The result may be different with a different sample : all respondents, in one way or another, at some time, had stepped beyond 'definitions' and 'the majority'. They held responsible positions and were on permanent contracts.

### **Conceptions of the curriculum**

The term 'curriculum' was used by all respondents. It was conceived as a programme-level concept which was described by one respondent as '*the totality of the students' learning experiences*' (or at least those for which the university might reasonably be considered to be accountable or responsible). This 'totality' included more than what were considered (principally by the academics on the programme) to be the essential concepts, knowledge, techniques and values of their particular disciplines. It included not only explicit elements such as curricular content and assessments, but also fuzzier explicit/implicit elements, some of which would defy reliable and valid assessment. There could be gaps between 'learning outcomes' (which have to be set out on all the university's module literature) and academics' '*aspirational outcomes*' for student learning.

The curriculum was - informally or formally - in an almost constant state of flux. The main impulses to change were felt to come principally from:

discovery and reinterpretation within the discipline (very often aligned with academics' research interests);  
student interest and capabilities (expressed partly through formal and informal feedback from students, from staff observation and from analysis of students' entry standards and results at university);  
employment opportunities for students after graduation;  
some professional bodies, the best of which were responsive to disciplinary change;  
physical and human resources.

### *Visualising the curriculum*

There were several 'back of the envelope jobs' as academics tried to visualise their conception of the curriculum. Whether literally 'visualised' or not, their curriculum models assumed one of the following main patterns.

*A 3-D 'linear/vertically layered structure* which included the two-dimensional features of Figure 3 in Jackson and Shaw (2002 p.4) in that 'Conceptions, Philosophy and Rationale' moved to 'Learning Goals' through to 'Content', 'Teaching and Learning Methods', 'Assessment and Evaluation' thence on to 'Research, Planning, Review and Enhancement'. The third dimension in this broadly process concept was programme level, with references to Bloom's taxonomy (Stenhouse 1981:57-59). In essence, within the context of the H.E. undergraduate curriculum, the taxonomy indicates more descriptive work and some analysis at level one, with an increasingly dominant focus on critical analysis and synthesis through levels 2 and 3.

*An ascending vertical spiral* with key features of the discipline (knowledge, concepts, techniques and skills) within a central space. The ascent represented a revisiting of the key disciplinary features, with different applications, but at a higher level through the degree programme and an outer circling of reflection 'space for thought' and the development of capabilities. This model differed from the 3-D model in that students were expected to analyse and synthesise – as well as to describe – from day one. One respondent felt that there could be a danger here that assessments could tax even the best and discourage the rest. However, it was recognised in the assessment criteria that attempts at analysis and synthesis may not be too successful at first. The applications of thought became gradually more complex between levels 1-3 and expectations became more demanding.

*A complex web of learning experiences.* The web, like the 'spiral', did not envisage a measured progression through Bloom's taxonomy: the complexity of thought criterion, in assessment setting and marking, was very similar to that visualised in 'the spiral'. Proponents of 'the web' were most likely to articulate notions of implicit as well as explicit learning, and there were explicit references to the '*hidden curriculum*'.

### *The hidden curriculum*

Whether the term 'hidden curriculum' was used or not, the majority of respondents referred to what one described as '*essential student learning*' which could take place '*almost at the unconscious level*'. This learning could come from a number of sources, including academics' behaviours, disciplinary ethos or the influence of particular students in a group. Some examples are as follows:

*'It's helpful to have women teaching and leading x which traditionally has been a male, rather a macho, preserve... and to have male academics challenging so-called 'laddish' behaviour – especially when it is...sexist...We had an extreme case... a student who was racist as well as sexist and who was egging on his fellow students... there has to be a clear, collective line : this behaviour is unacceptable'.*

*'What messages does it give students... if you are disorganised...give work back ages after the agreed deadline – as a (programme) team we are agreed to be as tight about these things as we expect students to be'.*

*'I try and make sure that anything I give to students – or send as an email - is as well-prepared and presented as I can make it...It is a form of respect to them...Moreover, can you expect well-referenced work from students...if your stuff is shoddily referenced?'*

*'I had to have a discussion with a colleague about ... (his/her) open disparagement of ICT as a route to university learning... As a programme, we try to encourage a range of learning approaches, including ICT...'*

#### *Explicit and implicit curricula : fuzzy areas*

Some elements of the 'hidden curriculum' were being worked on by individuals; others had been explicitly agreed at module or programme level. The 'hidden', in other words, could be hidden to students, but not necessarily to colleagues on a module or programme. The perceptions (above) articulate particular values: there are to be challenges to stereotypical thinking; disorganised work is disrespectful to students and appears not to give value to key features of university-level work such as rigour in inquiry, and the honesty to acknowledge others' scholarship.

In discussion about the curriculum, words such as 'values', 'ethical / moral considerations' occurred time and again, across all disciplines, or examples of behaviours were given which were expressive of certain value positions. A graduate, now leading educational programmes within prisons, with whom I discussed learning on a Humanities programme commented:

*'At one time, I would just have thought they (offenders) were all a bad lot ... some have done bad things and they will not change; but even with these offenders, you look at – often – some appalling circumstances. There but for the grace of God, perhaps... (the degree) taught me more understanding ... an appreciation that life's not that simple ... it's difficult to pin down how it happened, but (the change in thinking) happened gradually over the three years '* (Graduate).

The 'learning outcomes' of the programme articulate the encouragement of critical thinking and the reading lists include the works of Foucault. However, as one respondent expressed it: *'above all, we (programme) encourage critical thinking, the challenging of the status quo... it's difficult to express all this as precise learning outcomes ... we'd have to test to destruction – but it's something that's there'*.

A disparity between a particular disciplinary ethos and values within the programme team was explained as follows.

*'In medicine, there is change, but it is slow to arrive ... Just because the government / doctor / 'scientists' - professionals say ... as if these were the only ways which the 'patient' had uncritically to follow. That has been the cultural thinking for too long. The ethics of medicine are a key part of the programme ... We also try to show that there are other ways of thinking about health, such as health promotion... Some complementary medicines are now almost mainstream. So, too, is the thinking about indigenous knowledge – at one time that was dismissed, now...it has emerged as very important... in a way we were ahead of the game'*.

And, from another respondent:

*'We've been doing work on x for a number of years – but we have not been explicit about this area to (professional body) which is prescriptive ... all our knowledge of (the discipline) and what is going on in the workplace suggested that it was a must...'*

#### *The curriculum in flux*

The one feature of the curriculum upon which there was complete agreement was 'change', perhaps in small ways which individual academics, perhaps working with their students, would decide (*'whoever taught 'the same' class twice?'*). More substantial change tended to be decided collectively, at module or programme level. Some recent and current changes were:

*The identification of gaps and unnecessary overlaps in programmes.* There were several reasons for doing this. There was a need to free up curricular space in level 1 (see below). Another programme was seeking to introduce a strong element of work

on sustainability across all three levels, a unifying feature of the degree. Other programmes were freeing up space for more problem-working as an encouragement to creative work.

*Assessment mapping* which was being tried by some teams, for others it was a new idea. The mapping was focussing on these main issues:

- should unseen end exams be eliminated in semester 1, level 1 modules in favour of more formative assessment with 'light grading' - or would this just defer the problems some students encountered with exams (especially the non-traditional entry students)?
- was more variety in assessment type needed?
- was more formative, accredited assessment needed?
- could deadline bunching be avoided. even within a rigid short-semester framework?

*Articulating among the programme team the previously implicit* (such as enhancing students' self-confidence). Introducing more opportunities for discussion was an imperative in most respondents' disciplines and had been 'planned in' at all levels. As one respondent commented: *'In some secondary schools, writing things down, doing point tests, is – I am sure – a disciplinary measure ... and I understand. I am not sure ... either that the pressure of assessment in schools encourages discussion. Whatever... we have to turn some tongue-tied students into people who can approach life, job interviews... with some confidence'*.

### **Level 1 curriculum design : issues and processes**

*'School was a mad rush of exams – totally mad. There wasn't enough discussion at school ... I can't blame the (secondary school) staff – they were under pressure, too'*. (Graduate).

*'You can lower hurdles, or you can help people over them; we do not lower hurdles'*.

Issues of cultural capital and social justice emerged forcefully at this stage of the discussions. Major re-design of most level 1 programmes in the sample had occurred in the past 3-4 years, for as one respondent observed: *'any recent level 1 curricular creativity has gone into collective brainstorming to confront an urgent problem'*. Principally, 'the problem' was that among a percentage of recent intakes of undergraduates, there appeared to be a more marked mismatch between school/F.E. work and university-level work (even where there were apparent 'constants' in admission grades). It was emphasized that a *'good number of these students so not lack ability but they have a lot of ground to make up ... some do not realise this at first – they appeared to be high achievers at school ...'* Another respondent commented: *'Former GNVQ students are not all weak students... GNVQ is quite straight line ... but good creative F.E. teachers work around the syllabus and problematize... we know who they are ... their students are better-prepared'*.

Respondent's views on this issue may be summarised as follows:

The 'mismatch' was most apparent among 10%-25% of UK students, depending on the discipline. Among this group, typically some were mature students, but most were standard age entry. Overseas students rarely had comparable difficulties.

The principal difficulties for this group were in the basics of literacy, numeracy (described in Science / Engineering as *'appallingly weak'*); important features of disciplines such as laboratory skills; and oral communication

Former GNVQ students and students from deprived schools were felt to be more likely than other students to have difficulties of academic and social adjustment to university.

There were wide gaps in reading and 'general knowledge' (commented upon by nine respondents) even among the more able students.

There was more reliance on regurgitation of 'given' information; study skills and motivation were weaker; and there was an *'over-dependence'* on academic staff, especially among initially weaker students.

There was reflection about what one respondent described as ‘a crowded, heavily normative National Curriculum’ with ‘no time to develop other than superficial learning’. One respondent (in Science) commented on the ‘paucity of aesthetic education and languages within the National Curriculum’ which were felt to be important elements in the developments of creativity. From experience in the university of a modular framework, another respondent felt that ‘piecemeal learning (school modules) may well not encourage learning transfer’ (from school/F.E. to university). In Sciences, there was felt to be curricular overlap and gaps: ‘schools have presented students with difficult concepts which they haven’t really grasped...we are equipped to teach these - yet the basics of good numeracy and literacy appear to have been neglected’. There was further thought about the accountability pressure on schools when league tables are significantly associated with recruitment (of staff and students) and financial well-being (Stobart 2001).

So, given a powerful perception of a difficulty with preparedness for university work among a percentage of students, what did the ‘collective brainstorming’ produce? The following table summarises responses drawn from programmes within the sample. Some measures, such as attendance monitoring and loss of marks for late assessment submission are university practice. Other measures, such as explicit guidance about academic essay conventions and study skills had been in place for many years, but ‘these things could be piecemeal within modules’.

Where the following is somewhat different from past practice is that programmes collectively and explicitly tried to dissect some students’ difficulties with university-level work; and to tie in possible remedies. All students were included in these measures as it was felt that ‘all, even the able ones, have been found to benefit’ (for example from numeracy enhancement) ‘we just take them faster, further’. All modules were credit-bearing so that students ‘took them seriously’.

What was noticeable in discussion is that at level 1 in several programmes there was a clearer focus on the development of independent work and problem-working, in small ways at first, but as a step in the encouragement of creative behaviours. Some respondents felt that, although the impulse to some reduction in content at level 1 had been – as one expressed it - the need to ‘bring some students into the picture ... the result of more problem-working and discussion ... has been more understanding across the (ability) range... Because students have this (understanding) you can move on faster, later, if needs be’.

**Table 1 : Issues in level 1 curriculum redesign**

<b>Issue</b>	<b>Attempt at resolution</b>
Weak literacy, numeracy and basic skills in the discipline (such as laboratory techniques)	1 Load resources into level 1 in order to enhance the tutorial system. 2 Accredited module in ‘how to study at university’ ... ‘in order to bring students up to some sort of platform from which they can attempt university work’.
Over-reliance on factual regurgitation; lack of awareness that ‘facts’ were often interpretations.	1 ‘Lots of small-group discussion and problem setting – act as devil’s advocate’. 2 Focused library searches and constructions of annotated bibliographies which included different viewpoints.
Short attention spans; students apparently used to copying notes in class.	Break up lectures into shorter slots; combine ‘the lecture’ and ‘tutorial’ models; give guidance & practice in writing abstracts and making notes from early in semester 1, level 1.
Limited ICT skills; but quite adept at plagiarising from the web.	1 Using ICT to problem work (initially on – for example – a given spreadsheet; then move to constructing one’s own and interrogating it).

	2 Designing <i>'little projects with a twist to cut out downloading from the web'</i> .
Lack of reading and self-study skills	1 Focused library searches, including e-journals. 2 <i>'Don't spoon-feed; give tasks to find out about– either singly or in a group'</i> .
Space in the level 1 curriculum.	Reduce curriculum content to make space for <i>'Problem-working, more reading, focus on improving literacy &amp; numeracy.'</i> More high gain (students) / low pain (staff) assessment to free some time *
Uncertainty about 'standards' expected and forms of assessment such as academic essays and exams.	Increase formative assessment (but with credit) and feedback.
Weak attendance ( <i>'after a structured school regime'; 'don't con ourselves that they are adults at 18-19'</i> ).	Rigorously monitor attendance; pursue non-attenders early. <i>'We have found an interesting correlation between attendance and results'</i> .
Selection of modules in order to avoid perceived 'difficult areas'.	Reduce module choice. Embed 'difficult' areas (eg ICT – especially in Arts/Humanities - and oral work) across the programme.

\* Skills *Plus* project.

Needless to say, changes such as these could be a source of conflict among some academic teams. The re-distribution of scarce resources in favour of level 1 and some reductions in content (*'what goes – that's a value judgement'*) were key issues.

There was discussion about further things to be done in order to help less-prepared students into university work (and prepare academics to cope). Inevitably there are resource implications for students and universities.

Introduce a foundation year, especially for non-traditional entry students (Open Days and 'Master Classes' for pre-entry students were felt to be a start, but not enough). Two academics knew of the University of Central Lancashire's preparation for GNVQ students (*THES 28.06.2002:8*).

Provide more staff development and support *'to cope with the new student '...we haven't a clue how to cope with some of the literacy problems we see and some of us have PGCEs'*. The central unit at the university, which mainly assists a small number of students with learning difficulties such as dyslexia was felt to be under-resourced. Some students perceived the central unit as *'remote'*. *'For students with more easily remediable difficulties, the credible response comes from academics whom the students respect... Ideally, we embed across the programme. But where there are more serious difficulties – I would like to see peripatetic specialist help within the school/ faculty...working within the academic teams...I must stress that a number of these students are, actually, able ...once they find their feet... it's as if their intellectual development has been left behind at some stage'*.

### **Curriculum design (level 3) : issues and processes**

At level 1, modules were predominantly core. At level 3, most modules were options and staff had more opportunity – continuing from level 2 – to draw on their research interests. At this level, creativity in design and designing in opportunities for student creativity took a different form from level 1. There was felt to be:

less need to design in creative responses to student learning problems;

still more focus on independent learning, especially wide reading, including insights from related disciplines (team-taught modules were a reflection of this; students could cope more easily with different perspectives at this level); further development of problem-working and application of theory to '*actual applications*'. more potential for creativity (academics and students) than at level 1 as more students were felt to have '*a better grasp of the discipline and insights from elsewhere... and more confidence to challenge you in informed ways*'.

There were three further points to emerge from discussion at this stage.

Level 2 was a critical stage in the development of student creative behaviours which emerged more fully in level 3.

Level 2, also, was an important stage in the development of attributes and skills which are considered to be of importance in the workplace. Typically, level 2, including vacations, was the stage at which students undertook work experience or work visits.

Legacies of struggles at level 1 were still evident for some students, but '*a good number*' of the students with serious difficulties, financial, social, academic, had left the university or transferred to non-graduate programmes.

#### *Creative curriculum design : a final word*

A number of respondents were concerned that some students with sufficient ability to get a degree, had left because of financial problems : '*it is a hard fact that – for some students, employment is absolute necessity – this is undoubtedly a factor in drop-out*'. Could the curriculum be designed in such a way to assist these students?

'*De-schooling*' university (Illich 1971). One respondent (with a track record of flexible / distance learning in the UK and the developing world) was acutely aware of issues of social justice. This point deserves quoting fully :

*'I would like to see all those who can benefit coming into H.E...it is ... a question of Choice, Flexibility, Opportunity'* (previously described as '*a triptych in our work*'). '*What about the undergraduates who cannot come into the university in a conventional way – perhaps for financial reasons. It should be possible, for example, to come into laboratories at unconventional times – give them tutorial support. It is not satisfactory, but life is not satisfactory. However, it may be the best we can do for some students ... We would also need more flexibility of exam opportunities ... Further ... pay as you go is more affordable for many students*'. Distance learning had been reviewed and had been discontinued at undergraduate level.

Another respondent had given some thought to a similar proposal but admitted '*the resource implications are very considerable ... but if the government is serious about attracting and keeping able students ... without the necessary family support, this is a route which we may reconsider*'.

#### **Creative behaviours and curriculum design (academics)**

Some main features of respondents' perceptions of the creative curriculum design process are shown in Figure 1 (below). In summary, the main features are:

*The creative quartet* There was some consensus that the bedrock of any curriculum creativity which they had achieved consisted of four main elements : existing knowledge; enthusiasm for the discipline; an interest in students and their learning; and 'an issue'.

*The knowledge to make linkages between the formerly unconnected* was a prerequisite of innovation, so was enthusiasm for the discipline, but without the other two features of the quartet, curriculum innovation was unlikely to happen. What one respondent described as '*intuition... that little imaginative spark – in the pub, snoozing – I'm usually relaxed*' was felt usually to precede the conscious logical working through of ideas. However, as Pasteur commented '*chance favours only the*

*prepared mind*' (quoted in Kor and Mahoney 2000:113). Aware of stereotypes of how creative work proceeds in different disciplines, one respondent in Science / Engineering commented: '*We are trained in a particular deductive/inductive mode of thought ... but one is aware sometimes of connections apparently coming from nowhere ... at subconscious level one may have been working away logically!*' A comment from Arts/Humanities was: '*we don't get by without some hard analysis!*'

Figure 2 illustrates respondent's common perceptions of creative individuals. In essence, apart from the 'quartet', they are usually confident iconoclasts (but have empathy), possess political awareness (or have a colleague – the implementer) who has. They are inquisitive and, often, polymaths who range outside the 'home' discipline for insights and connections. A senior academic with a history of creative approaches in teaching, research and management made further key points: '*Some academics do make more linkages than others... They are enthusiastic and knowledgeable – and have the energy to put good ideas into practice ... above all they are not afraid of making fools of themselves... or at least that is how creative ideas may be viewed at first...* *If you manage, creatives can be viewed as a challenge (personally and to 'the system')*'.

**Figure 1 Respondents' perceptions of the creative curriculum process**

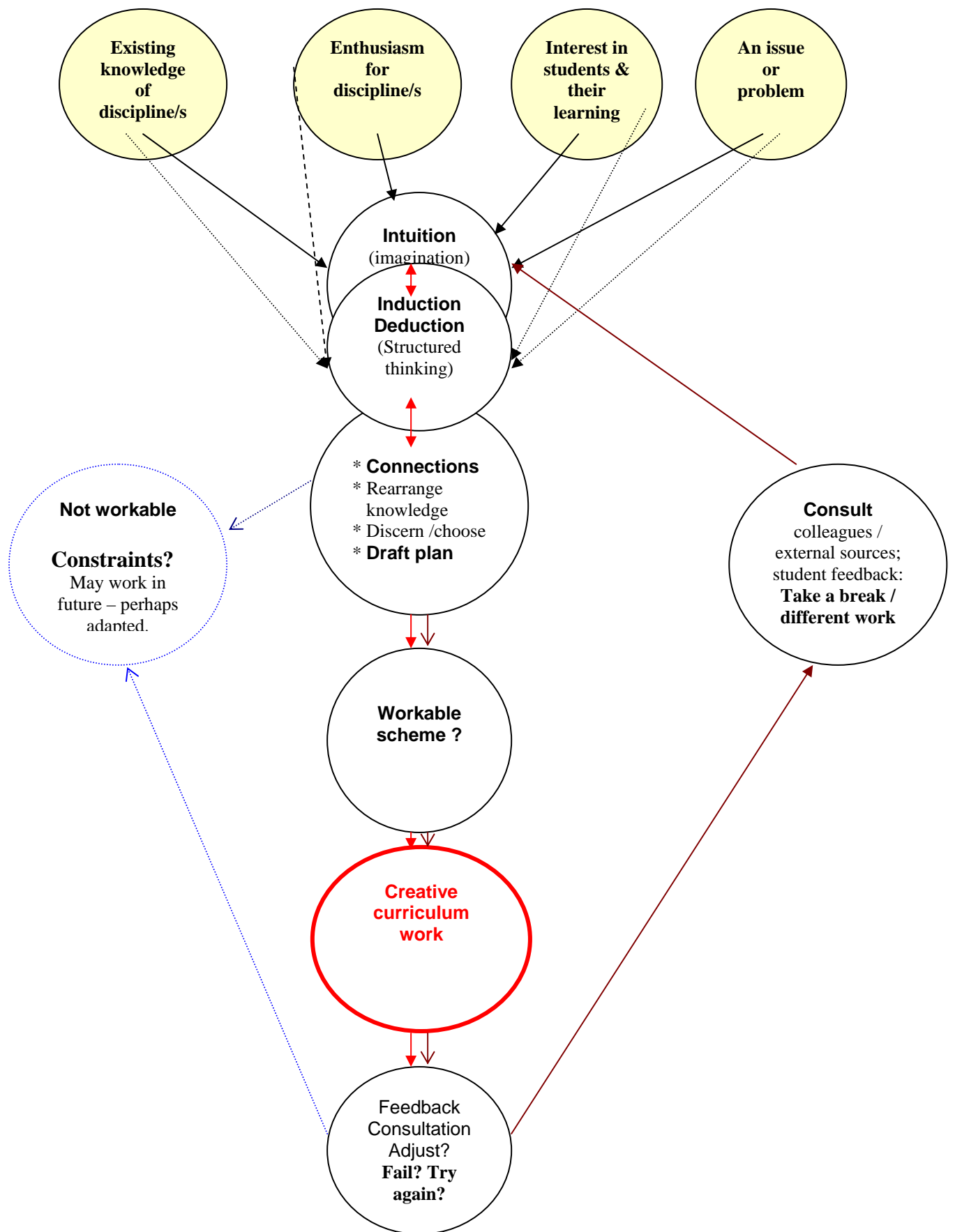
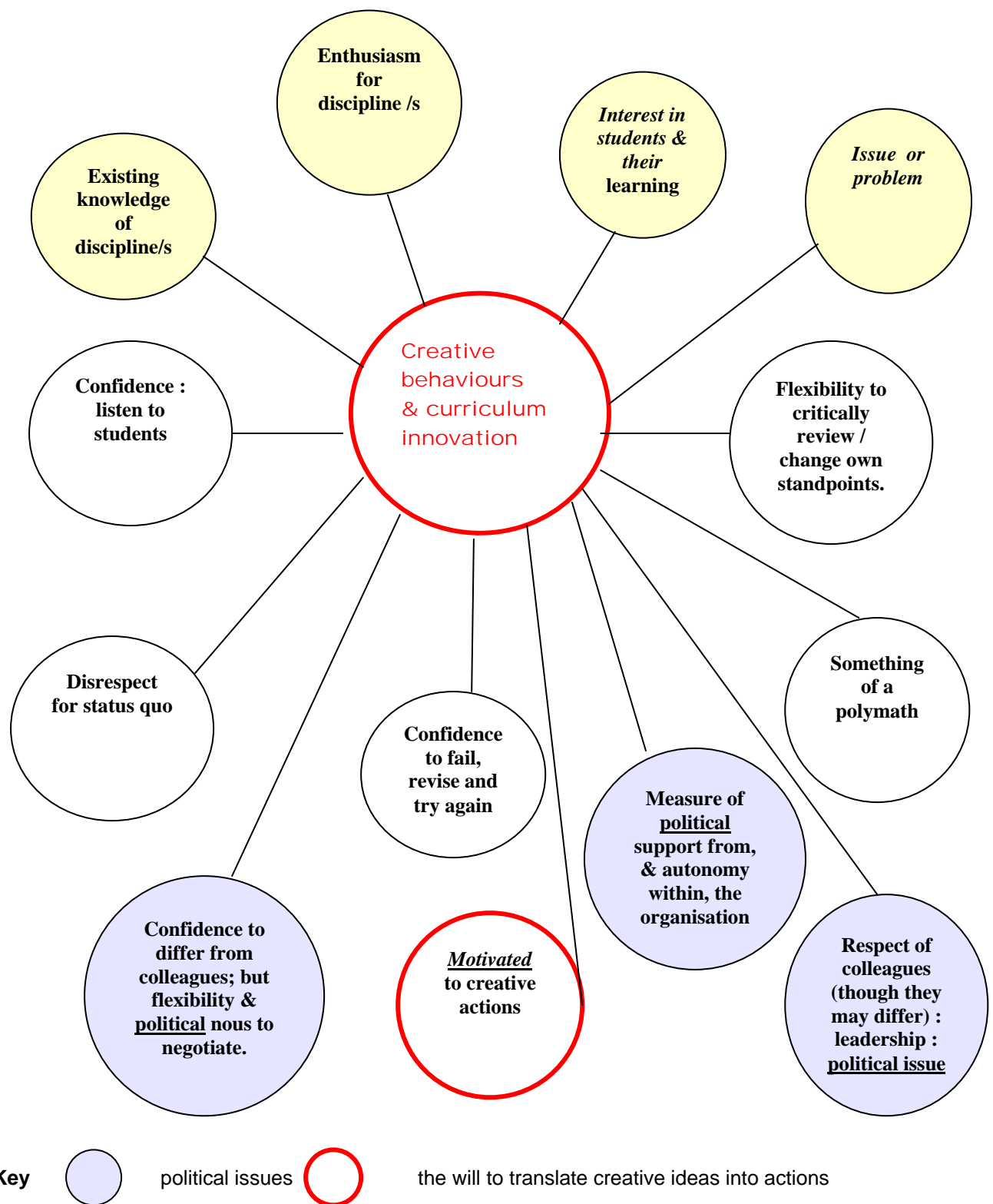


Figure 2 Factors in creative behaviours & curriculum innovation : academics



## Encouragement of student creativity

Respondents gave examples of undergraduates' creative work, mostly from final year. It was widely felt, however, that designing creativity *into* the curriculum meant designing in encouragements to creative behaviours. As Yeomans (1996:242) comments '*we are more likely to see interpretations than creativity in the work of ... students*' ... creativity at undergraduate level more appropriately refers to the '*character of the activity, not to the nature of the end product*' (*ibid*). In other words, as one respondent commented: '*undergraduates are 'apprentice creatives' ...in terms of their disciplines...but the encouragement of creative behaviours has to start early – it is from these beginnings that creative work may emerge*'.

There were marked similarities between perceptions of academic and student creative processes and behaviours (Figure 3). These similarities include the foundation of a sound knowledge of the discipline, the drawing upon insights from other disciplines and '*confidence*', '*can-do, or at least, try*'. Some themes which ran through discussion of this issue were:

- the encouragement of '*lateral thinking, problem-working on every conceivable occasion...*';
- the encouragement of independent study and reflection by students on their own learning (considered to be '*a motivator for most*');
- the importance of cooperative learning (for example, in groups)
- academic behaviours which encourage 'malleable self theory' (commend effort, suggest developments of work, use '*all means to broaden fixed ideas*' about students' self capabilities and stereotypical responses to concepts, people and situations). It has been suggested that formative feedback is a more effective motivator when effort, not intelligence, is praised (Mueller and Dweck 1998). Feedback should be developmental ('*have you considered...?*').

Figure 3 (below) shows academics' perceptions of features of curriculum design and their own behaviours which could encourage creative behaviours in students. The differences in the colouring/edging between the 'circles' are intended to suggest areas which are more amenable to formal assessment and those which are less so. Formative feedback may be 'formal' (it is part of an assessment which contributes to the final mark) but an important element is informal feedback, for example on work done in class or in tutorial. The 'informal' / fuzzy can play an important role in encouraging creative thinking.

The creative 'encouragements' are simply shown as feeding into a central point : a Rough Model.

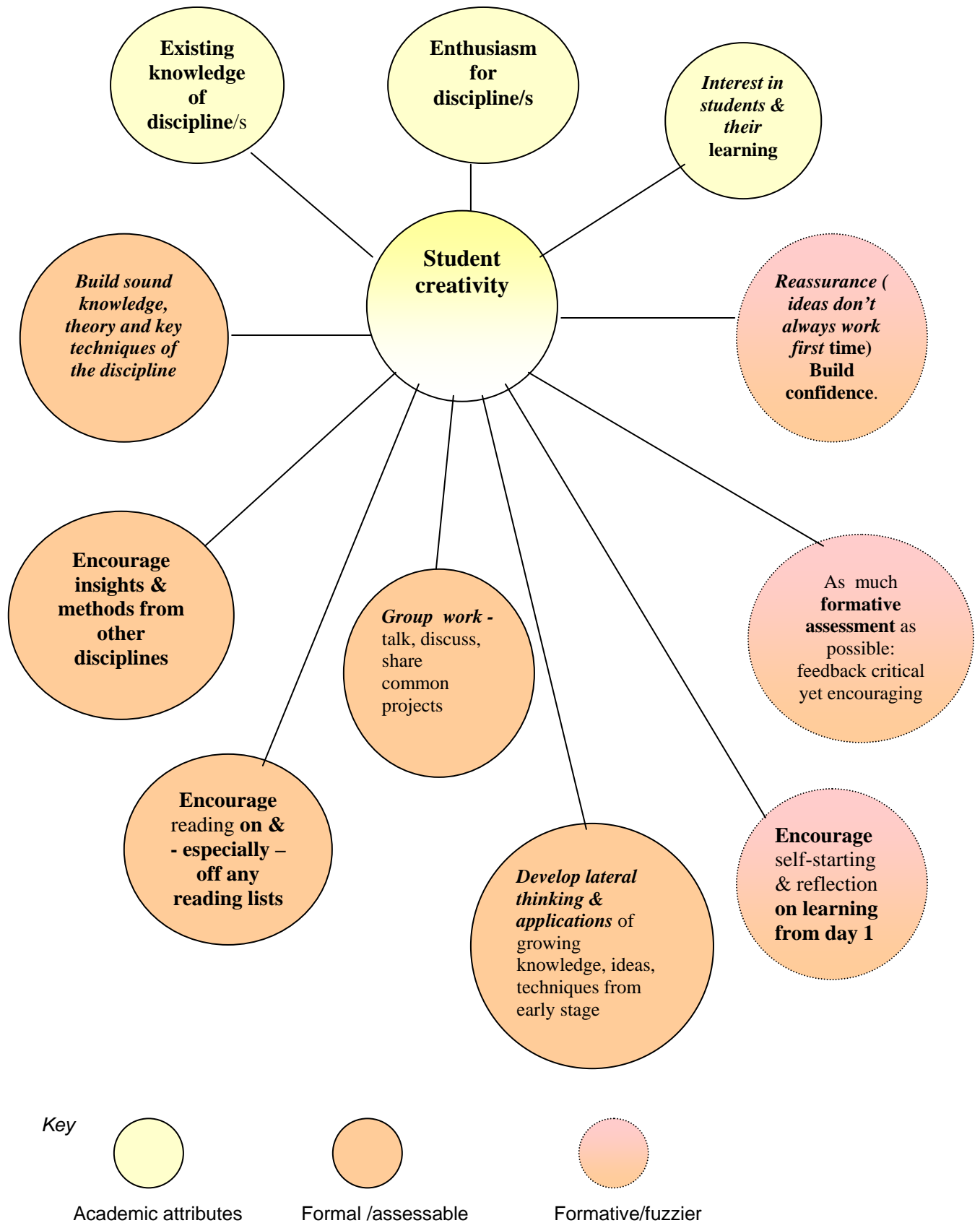
This section will conclude with a brief 'case study' from a respondent who had seen examples of final year group oral problem-working in two other universities. In each case, students were asked to apply their knowledge and skills to particular situations. His observations are illustrative of creative behaviours in students, how these had been encouraged, and how this work of encouragement has to start early in the undergraduate career.

*'In the first case, the students were raring to go – ideas were coming thick and fast ... and what emerged was an imaginative and well-designed working hypothesis .. ideas were being put aside as unethical or impracticable – but out of the discarded ideas, good things could come. Good team work was noticeable. In the second example (and I wouldn't say there was an ability difference from in the first case)... it just didn't work. Students were not used to brainstorming, to trying ideas for size... It was stilted and the students failed – dramatically – to communicate. A very plausible explanation for the difference seemed to lie in curricular content and assessment. Once you looked at the curriculum, you realised that group two... had sparse practice and no guidance in this sort of problem-working until final year – where was the preparation? You cannot expect students to draw things out of a hat ... it's unfair'.*

Some practical examples of problem-working in H.E. are given in Gardiner and Hughes (2000).



Figure 3 Encouraging creativity in undergraduates : academics' perspectives



## Discouragement and encouragement of creativity in curriculum design

Figure 4 Discouragements and encouragements to curriculum creativity



### The discouragement of creativity : resources and managerialism

Limited resources and manifestations of managerialism were perceived to be significant limitations on respondents' creativity in curriculum design. These factors underpinned the pressures of time, space (professional autonomy, and geographical and time space) for students and academics. Some constraint ('an issue') can stimulate creative thinking, but without 'space', creativity does not translate into creative production.

'Limited resources' resulted in:  
too few academic staff;  
high SSRs ;  
too little support for students with a difficult adjustment to university, in spite of best efforts;  
virtually no administrative support to help cope with accountability demands and routine administrative tasks;  
limited technical support;  
pockets of poor accommodation and resources;  
limited funds for staff development within Schools.

Managerialism was most manifest in:

*external discourses which 'cannot or choose not to make the necessary distinctions between public and private';  
a heavy focus on 'output' without concomitant attention to 'input';  
unreasonably heavy and misapplied accountability demands;  
lack of appreciation of 'deep learning' in favour of the 'instant and market-led';  
limitations on professional autonomy, including the autonomy to design curricula.*

### The encouragement of creativity

Given that resource limitations could not be resolved except with political will at a higher level than the modules and programmes which were the main areas of operation for most respondents, this sub-section will focus on respondents' views of how they might, to an extent, try to ameliorate some of the impacts of the discouragements.

#### *The management of modules and programmes*

Bookshelves in airports and in academic bookshops are alive with prescriptions for managing 'creatively'. A distinction is sometimes drawn in the management literature between 'management' and 'leadership' (see, for example Higgs and Rowland 2002). In discussion, this distinction was not precisely analysed. Respondents described themselves as 'leaders' (as in their job titles). The term 'management' was often reserved for steps further up the hierarchy.

All respondents had a track record of creative thinking and working, although the self-description of one was as a *'better implementer'*. All had encountered resistance to innovation, sometimes from students, from colleagues, from professional bodies or, on occasions, from more senior academics. Professional autonomy was considered a key feature of creative working. One comment was: *'We work within an agreed framework, but in a complex job you cannot programme for every eventuality ... and if you try to, you produce robots or rebellion. You must know your team and give them space – if things seem to be going adrift, find out why. Listen – critically – to student feedback. I have had adverse comment about lecturers who didn't give massive handouts, but are encouraging independent learning – something which we'd agreed as a team'*.

### 1 *Management for creativity : general*

In essence, effective academic management and leadership was felt to involve: research and teaching credibility (not necessarily within the discipline); encouragement of staff development; communication (especially of problems); analytical receptivity to new ideas and feedback; judgement in deciding what was workable; ethical awareness; honesty in acknowledging one's own limitations; energy to act – and firmness in facing problems from within teams – or unreasonable demands on their teams. Sometimes *force majeure* had to be acceded to – but *'good leaders and managers'* worked on damage limitation if this were appropriate. The latter quality was particularly respected. Leaders/managers were felt to be *'often imaginative'* – but *'did not feel their authority was challenged if creative ideas came from colleagues'*. A number of comments here relate to the concepts of creative intelligence and malleable self-theory.

### 2 *Management for creativity : specific*

Knowing your team *'Don't live in your office – informal discussions in the common room, pub, whatever, can be very revealing ... of classroom events, particular problems with students, research, people's ideas – their take...'*

Formal decision-making. *'You can exclude the less-clubbable if you depend too much on informality. Before meetings, agenda and background papers well in advance – the usual things. I always ask for a short response – prepared in advance on key issues such as curriculum change...just to get the ideas flowing'*. From another respondent: *'Have an agenda-ed meeting with succinct minutes, but never, ever, cut out AOB (any other business)'*.

Staff development (on curricular issues) *'is often most effective at programme level ... it's difficult to find time, but we do this if a major curriculum review is due – or we have a particular issue... We brainstorm together, refer to student feedback ... or we've invited academics from elsewhere in the university – or other universities – often our externals (examiners) ...with some first-hand experience of what we may be trying to do.'*

Creative problem-solving, empathy *'Some good ideas are resisted. I try negotiation first – (Resistance) can represent a shyness about certain types of discussion with students, ...or a challenge to sincere values... lack of competence .. I move staff around to accommodate genuine problems – such as stress, if possible – or involve (next step up the hierarchy) as a last resort'*.

Team roles One module leader commented on team roles as follows: *'There is x who is brimming with unusual slants – a creative person, I suppose...I listen...although I think some ideas are off the wall at times. I am good at procedures to get (the module) through at university-level – (QAA) benchmarks – all that stuff... then there is Dr y who sometimes has good ideas – but mainly to tweak – but who is very enthusiastic and persuasive ... and respected in his field... He gets people on board'*.

In this team, the leader has the good sense to listen (even to some 'off the wall' ideas) and to acknowledge team members' strengths – including his/her own political acumen.

### **Management for discouragement of creativity at module and programme levels.**

This point will not be laboured as perceptions of discouragements were the converse of the above. A couple of illustrations will suffice.

*'In our team meetings, decisions tend to have been made in advance – discussion about anything other than the routine is timed out.'*

*'a good idea to me once was – I later acknowledged - a bit ambitious ...it was knocked back (at more senior level)... it was good judgement on the part of x, but - especially for a young academic – it was a pretty brutal put-down'.*

In summary, leadership at curriculum level was perceived as a factor in the encouragement of creative curriculum design, but with under-resourcing of university education in its many manifestations, it was widely felt that *'creative leadership can only go so far'*.

### **In conclusion : the value placed on creativity**

All respondents considered that creativity could and should be encouraged, though not all students and academics were felt to be equally capable of – or willing to risk - creative behaviours. Learning experiences through life, levels of morale and stresses were thought to account for much of the difference.

Creative behaviours were valued by all respondents within the inquiry, though some were working within constraints of *'conservative colleagues and students'*, and *'initiative and bureaucracy fatigue'*. Assessment criteria on most programmes placed value on features of creative behaviours such as *'independent thinking'*, *'insightful work'*, *'original interpretations'* – and some respondents had played a part in the inclusion of such criteria.

There was variation in thinking about *'whether a number of employers want creativity or conformity'*. For further development of this idea, see Brown and Scase (1994). Professional bodies, too, varied in their approaches to the encouragement of creative behaviours. Two were regarded as particularly conservative in their insistence on unseen examinations and *'pretty utilitarian'* syllabuses – although respondents worked to ameliorate the impact of these prescriptions. Conversely, another professional body was regarded as *'on the ball in matters of the discipline and in what is happening in the (industry)'* and was not unduly prescriptive in terms of assessment and curriculum content.

Nevertheless, respondents retained a belief that creativity could be developed and the curricula which they had a part in designing reflected this belief. There was a sense of curricula stretching out beyond the brief degree years; and a conviction that creativity was essential, in enriching individual lives and in the wider society in which the university is embedded. However:

*'...the creativity inherent in the human condition gets its nourishment from a balanced and dialectical interplay between the two forces of society and individual, of public and private, of macrocosm and microcosm. It follows that when we design efforts to favour one of these forces over the other, then we are effectively cutting into the heart of both social and individual change'.*

*(Olsson 1980:34)*

### **Summary**

Discussions were held with ten practising academics from Liverpool John Moores University in May-June 2002. Five respondents worked in Science / Engineering; four in Arts / Humanities; one in Business Studies (which was thought to be a Science / Arts hybrid). All

respondents lead modules or programmes and have a record of innovative curriculum work within the university. Some had participated in curriculum development across the university and with other bodies. This is not a 'sample' in any quantitative sense.

The LTSN's Commissioning Brief outlined areas of investigation as follows.

How was 'creativity' perceived by respondents?

How was the curriculum conceptualised?

How did respondents perceive the process of curriculum design (focus on levels 1 and 3 of first degrees)?

How may creativity operate in the contexts of curriculum design, and designing *in* curricular opportunities for student creativity?

Which factors discouraged and encouraged creativity in curriculum design?

What value did respondents, the discipline and others such as professional bodies place on curricular creativity?

### *What is creativity?*

Respondents' comments were in broad agreement with the definition proposed by Knight (2002). Distinctions were drawn between the originality and significance of the creativity of, for example, Newton; and the work of creative curriculum design : partly a matter of scale, it was thought. There was a degree of convergence, however, in the conceptual thinking about 'creativity' between Arts/Humanities and Sciences/Engineering, and across the creativity scale. In essence, creativity was felt not to be pastiche or precisely -reproduced imagination, but the once-new in a particular context may imaginatively be reconstructed in another. Creativity meant: newness (including the making of new connections and re-formulations), excitement, usefulness, aesthetic satisfaction, not having an unmoral purpose, hard work.

### *The curriculum*

Was variously conceptualised as a 3-D linear/vertical structure, a spiral and a web. The first was the most obviously 'process' model. Proponents of the spiral and the web more explicitly made reference to the totality of the students' learning experience. Further discussions related to the 'hidden' curriculum, implicit/explicit learning and which learning was unassessable in any reliable and valid way. The issues of values (within teams and the discipline) and the need for on-going curriculum review and adaptation were important themes.

### *Curriculum design (level 1 and level 3)*

Major revisions of teaching methods and content had occurred at level 1 to accommodate difficulties of adjustment to university-level work, most typically – but not exclusively – by students from deprived schools and F.E. Colleges. Difficulties appeared to be over-reliance on 'facts' and regurgitation, numeracy and literacy, and oral communication – though a number of these students were felt to be quite able. Many teams had been applying certain teaching methods for a long time; what was new was dissection of the manifestations of the difficulties and collective agreements within teams about how to tackle them. More practice in problem-working was included.

Within level 3 design curriculum design, the main features were on advancing knowledge, including insights from other disciplines; more focus on independent learning; the applications of knowledge, techniques and skills in problem-working. Some students, including those with financial problems, had left the university by this stage. This caused some reflection on what more could be done for these students within current financial constraints on universities and while maintaining academic standards.

### *Some characteristics of creative behaviours*

There were some marked similarities between perceptions of academic and student creativity. Typically, the 'creative' had developed sufficient knowledge to 'make connections', was sufficiently confident to think outside well-trodden paths and to fail and to try again, was self-critical and flexible, and highly motivated. Figures 1-3 visualise academics' perceptions of creativity in curriculum design; creativity characteristics (academics); and how creative behaviours may be encouraged in students.

#### *Discouragements and encouragements to curriculum creativity*

Limited resources in universities and various manifestations of 'managerialism' were widely thought to be the major limitations on creativity in curriculum design. A major impact of both these limitations was the erosion of 'space' – for thought, for discussion and implementation; and the erosion of morale. Good leadership and management were thought to have a positive, but limited, effect on creativity given other constraints.

#### *The value placed on creativity*

Respondents considered that creativity could be developed; it was not a 'given' trait. There was variation in the value placed on creativity within and from outside the university. Respondents encouraged creativity, as a means to student enrichment and to that of the wider society in which the university is embedded.

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