'Limerick Creatives': Perspectives on Creativity

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SUMMARY

This paper combines the findings of two surveys of a small group of higher education lecturers and teaching assistants at the University of Limerick who participated in the two day Scholarly Innovation and Creativity Module which NJ facilitated. Perspectives on creativity were initially gathered through an email survey conducted in April 2014 immediately prior to the module. The survey comprised sixteen questions relating to perceptions of creativity in everyday (work and non-work) contexts and 12 members of the group responded to the survey. During the module participants completed an on-line questionnaire which provides further insights into their perceptions of creativity 16 participants responded to this survey.

75% of respondents believe they are creative and most believe that there are opportunities to be creative in most aspects of their life suggesting a generally positive disposition to finding creative opportunities in everyday life. This extends to the teaching context over 80% of the respondents believed they were either often creative or creative most of the time in their work as a teacher/educator. All respondents agree that their creativity involves using their imagination and nearly all agree that creativity entails having ideas that are new to them. Over 80% of respondents also think that creativity involves changes in understanding indicating that most participants see strong links between creativity and learning. Participants also see their creativity in terms of adapting ideas to new contexts and doing the things they do differently.

Factors and conditions that encourage or discourage personal creativity are also examined and respondents draw from their current working experience in order to make proposals for how the work environment might be made more conducive to creativity. Key issues are the need for positive professional relationships, senior management affective and practical support, opportunities for cross-fertilisation of ideas and practices and reduction of organisational bureaucratic constraints. One proposal is for creativity to be given the status of a core professional skill that can be valued alongside other professional skills.

BACKGROUND

The University of Limerick's 'Scholarly Innovation and Creativity Module' forms part of the 'Specialist Diploma in Teaching, Learning and Scholarship' offered by the University's Centre for Teaching and Learning. The Diploma is intended to align with the professional activities of early career academics and doctoral candidates in order to provide an accredited programme for developing high level, evidence-based competence in teaching, learning, scholarship and innovation in higher education settings. The aims of the programme (Specialist Diploma in Teaching, Learning and Scholarship Handbook) are:

- To enhance key skills among new academics including communication, presenting research, interacting effectively with learners, confidence and competence in academic writing and publishing, establishing rapport among students, peers and supervisors, exercising effective pedagogical and supervision skills, receiving and acting on feedback in both research and teaching settings, enhancing and developing academic competence and engaging actively in own career development.

- To provide a structured platform for the development and acceleration of complex academic skills at the early stages of an academic career.

- The creation of a supportive, challenging, high trust network of colleagues to provide longer term peer support beyond the duration of the programme.

In April 2014 one of us (NJ) was invited to facilitate the module. The module involved face to face participation in a classroom situation - presentations, group and paired discussions, poster creations, a creative thinking exercise using the approach developed by Jackson and Buining a design exercise, and presentations of designs that were filmed. The module was designed and implemented according to the principles of a collaborative learning ecology (Jackson 2013a & b).

Participants were encouraged to view the process as a collaborative knowledge sharing and knowledge development process sharing their perspectives on everyday creativity through a pre-course email survey (administered and analysed by NJ), an in-course questionnaire (administered and analysed by JW) and in class conversations. The results of both of these surveys were treated as knowledge resources for learning and posted on a password protected website that had been set up for the course, together with a collation of the responses to the first assignment task completed between Day 1 and 2 which encouraged participants to share an example of their own creativity in teaching and learning. Towards the end of the process participants also shared their ideas on how they might adapt or innovate a module they were teaching, in line with the idea of promoting their learners' learning ecologies: an important focus for the course.

The teaching group involved comprised 16 individuals (44%male 56% female), 75% (n=12) described their roles as teaching/lecturing; two of these were also (mature) students. The remaining 25% (n=4) were in student support or research roles. 19% (n=3) were aged 20-30, 31% (n=5) were between 31 and 40 years old, and 50% (n=8) were aged 41-50. Most participants were in the early stages of their teaching careers though some had considerable experience of other professional fields. The departments represented by the respondent group were diverse, including Business (Work & Employment); Chemical and Process Engineering; research into Creativity; Health Promotion; Law; Management development; Media; Physical Education and Sport Pedagogy; Psychology; Psychotherapy; Sociology; Sport Sciences and Teaching English as a Second/Other Language. These disciplines span the arts and sciences.

PERCEPTIONS OF CREATIVITY IN EVERY DAY LIFE

Before the module began participants were invited to share their understandings of what creativity meant. Responses were collated without any analysis and provided as a background working paper for the group.

What does being creative mean to you in any context?

Only one respondent associated creativity with artistic endeavour. The most popular view was that it is linked to newness, difference, making connections, using imagination and ideas, developing something new or using new means to accomplish something. Interestingly, no-one used the term 'original' and only one person used the term novel as part of someone else's definition of creativity. The personal meanings being expressed emphasised the idea of newness creating difference for the individual.

> A willingness or sensitivity to perceive newness and difference in what has previously been known. *respondent A*

> Coming up with something new? *respondent N*

Self-expression also featured in responses

> being creative is expressing yourself in a manner that would be considered outside of your normal conduct *respondent J*

Another perspective was that it was not only about vision but about harnessing personal resources to bring something new into existence.

> to be inspired and see in my mind something that does not exist. It is not just forming a vision or something new; it is acting upon that vision with determination, energy and passion to bring forth that which does not exist into something that exists. *respondent K*

What sort of things do you do in your everyday life outside of work that requires you to be creative?

We were interested in discovering what sorts of activity people engaged in, other than work, in which they felt creative. A wide variety of activities were cited giving substance and meanings to why 75% of participants believe there are opportunities to be creative in most aspects of their lives. For example:

1) Parenthood and other interactions with children and other important relationships

> Parenting is a constant creative endeavour- exploring my own sedimented ways of being developed from fear, insecurity, pain - and awakening the potential to be in a state of newness to accompany my son as he explores his being-in-the-world. There is creativity in mutual discovery, in creating a home, creating food *respondent A*

Entertaining our 5 month old twin boys *respondent C*

Parenting, I have three children who all require unique creative approaches to get them in the car at the same time. *respondent D*

Skype with my nephew (he lives in Australia and is 5) - we like to make up stories for each other and we write songs about our day *respondent J*

2) Cooking and entertaining

I cook without recipes and I use my own style in cooking. It is creative because it encourages me to be brave and try new things *respondent F*

Planning a surprise party for my best friend. It was creative because I had to decorate, design a cake, pick a venue, organise gifts etc. *respondent G*

Presents, cooking, dressing *respondent N*

3) Involvement in music, dance or other artistic enterprise

I adapted a song to sing it with different words, tune and pitch on the spur of the moment *respondent B*

I have produced 2 albums of recorded music in the last 5 years. It was creative because of the nature in which the songs evolved. There was no structure at the beginning so I had to do a lot of experimenting i.e. create space to work on the project i.e. think about what I wanted to say/my sound/instrument choice etc. Describing my vision to the other musicians and the engineer was perhaps the most challenging as over-production can ruin a recording *respondent C*

I do Zumba dance and I try sometimes to come up with my own choreography *respondent F*

I enjoy photography (beginner) and I feel that I have become creative through experimenting. *respondent H*

I have made personalised cards for people *respondent M*

4) Managing and improving self

creative use of time in terms of balancing sports, research etc. *respondent E*
Managing time! *respondent L*

I tried to answer some practical questions: How do I handle my fears, doubts, anxieties, worries, and negative self-talk? To handle such things, I try to bring something new and useful. For example, I start to think of the idea of writing or publishing an article. I do not belittle my capability, and this is in itself is creativity. *respondent K*
I used to use pictures instead of words at home everywhere. I thought it was silly, but I discovered that the idea was very useful in helping and motivating me memorise words. I

think it was creative because first, it resulted in a useful outcome and second it was new to me. *respondent K*

5) Conversation and humour

My humorous comments on facebook would be one example *respondent M*

Conversation (scholarly and fun/joking) *respondent H*

6) Other

Survive financial constraints *respondent A*

home improvements *respondent C*

Making money go further - in a number of areas, personally and for voluntary groups I'm involved with. I do a lot of home-baking and I like to use it as barter for other goods and services. I think its creative and enjoyable for all involved! *respondent L*

Table 1 Participants' beliefs about creativity

|	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	NA
I am not a very creative person	25	50	6	19	0	
There are opportunities to be creative in most aspects of my life	0	0	6	31	63	
Being creative is an essential part of my identity and practice as a teacher or student advisor	0	12.5	6	25	50	6
Being creative is an essential part of my identity and practice as an academic researcher	0	19	6	25	37.5	12.5
I don't have much opportunity to be creative in my everyday work	25	56	0	19	0	
My creativity enables me to accomplish my most significant challenges	0	25	0	31	44	
I develop myself through the my work this includes my creative development	0	6	0	44	50	
I am at my most creative when I am working by myself on things that interest me	0	31	12.5	31	25	
I am at my most creative when I am working collaboratively and productively with others	0	0	31	37.5	31	

Questionnaire responses

The in-course questionnaire also examined participants' beliefs about creativity. Table 1 shows that 75% of respondents believe they are creative and most believe that there are opportunities to be creative in most aspects of their life suggesting a generally positive disposition to finding creative opportunities in everyday life. 75% of participants believe that creativity is an essential part of their professional role as a teacher compared to 63% who felt it was essential to their practice as a researcher. Most participants (over 80%) of individuals disagreed with the statement 'I don't have much opportunity to be creative in my everyday work' suggesting a very

positive endorsement of the opportunities available to exercise personal creativity in their work practices but it must also be noted that 20% of participants agreed with statement. For them their work environment did not provide them with the opportunity to be creative.

75% of respondents agree that their creativity enables them to meet most challenges, suggesting that creativity has a practical benefit. With a single exception, respondents were unanimous in agreeing that they develop themselves through their work and this includes their creative development. Just over half of the respondents (56%) feel they are most creative when working alone on things of interest while 31% disagreed. But 68.5% of respondents say they are most creative when working collaboratively. The discrepancy between answers may indicate that creative people are equally productive when working alone or collaboratively, given the right conditions.

Figure 1 collates the responses for each dimension rated in this question. The issues which received greatest agreement (94%) were 'there are opportunities to be creative in most aspects of life' and 'I develop myself through my work'. Greatest disagreement (75%) was with the statement 'I am not a very creative person'. Respondents therefore both perceive themselves to be creative and find opportunities to use their creativity in most aspects of their lives.

Figure 1 Comparative perceptions of aspects of personal creativity
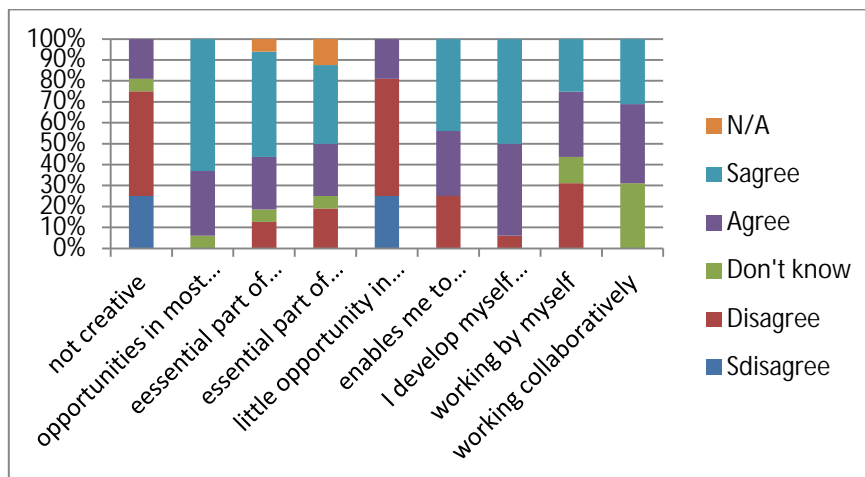
PERCEPTIONS OF CREATIVITY IN WORK

Having established that in general participants have a generally positive disposition to finding creative opportunities in everyday life, we turn our attention to the work environment - in particular the twin foci of the academic's role as teacher/educator and scholar/researcher.

What does creativity mean to you in your work as a teacher/educator?

Participants drew meanings at both the principled and practical levels. At the principled level.

An ability to welcome something which challenges my preconceptions and sedimented, limited ways of being and doing in relationship to my subject and students. *respondent A*

Most respondents highlighted the practical level of everyday teaching. Implicit in many of the responses and explicit in some is the connection between the idea that in the teaching context the teachers creativity is serving the needs of learners by promoting better learner engagement and learning outcomes.

Here it has a dual role. Firstly, it may pertain to my ability to develop creativity and innovation among the students (e.g., giving them fuzzy problems that can be solved by multiple solutions) or the role of originality in my presentation style and structure of the learning environment. (e.g., switching to campfire mode aided by lego with grad students so we can all communicate on the level-or even using different metaphors to convey complex ideas)*respondent M*

When I am teaching I am constantly trying to find creative ways to present content to my students so that their learning can be maximised. In the classroom - being creative means that I am never doing the same thing twice the same. *respondent F*

I think it means to try to find ways to make classes or topics more interesting so as to find new and better ways to engage students *respondent B*

Providing a hand-on approach to teach a topic in a fun environment *respondent C*

Coming up with new and innovative methods of teaching and assessment *respondent D*

Adding innovative ideas that inspire my students to challenge themselves. *respondent E*

Trying out new methods of teaching *respondent G*

Thinking on my feet and facilitating my students in achieving their potential *respondent H*

Using different methods to try and convey information in an informative and enjoyable way. i.e. using methods which students relate to such as social media, online resources and interactive methods such as quizzes and competition to reinforce knowledge. *respondent J*

Choosing classroom activities [that make] students think and produce something new. *respondent J*

Doing things in a certain way (perhaps a slightly different way) to achieve the best possible outcome for students (and myself - personal satisfaction) *respondent L*

One respondent highlighted the effect being creative had on her.

Creativity means something usually makes me feel good, and I am proud of it too, because I know that I have done something unique. For example, creative ideas often come when I feel interested and enthusiastic. I feel creative if I can create something of value; if I feel that in some ways what I do and how I do it reflects who I am *respondent K*

Figure 2 How creative do you feel you are in your work as a teacher?
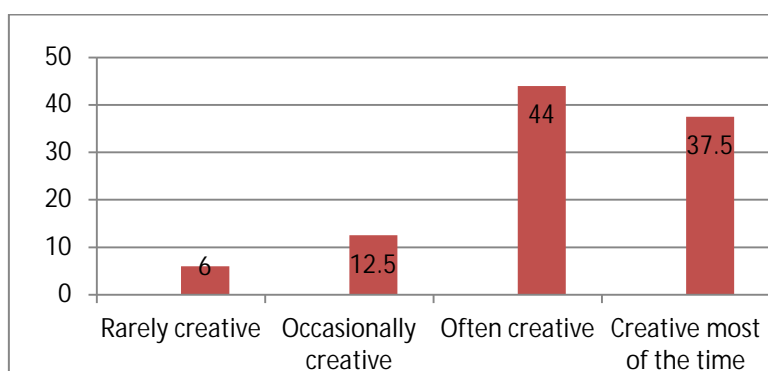
Questionnaire responses

When asked 'How creative do you feel you are in your work as a teacher' over 80% of the respondents believed they were either often creative or creative most of the time.

Table 2 What does creativity mean to you in the context of your work as a teacher/educator?

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
using my imagination				50	50
having ideas that are new to me			6	69	25
having ideas that are new to the contexts I am working in			6	62.5	31
changing my understanding		12.5	6	56	25
adapting existing ideas for the contexts I am working in			12.5	62.5	31
doing things differently		12.5	6	44	37.5
making new things		6	19	50	25
making new things happen		6	12.5	25	56
seeing situations from different perspectives			6	50	44
going beyond what has been done before in a particular context			6	50	44
being able to look at new concepts and ideas and put them together in different but personally meaningful ways			12.5	31	56
generating something new in response to an educational need or aspiration which matters to me			12.5	50	37.5
solving problems and overcoming barriers				25	56
improvising when I have to				31	69
transferring an idea or practice from one context to a different context		6	0	44	50

All respondents were in agreement that their creativity involved using their imagination. Only one respondent did not agree that creativity entailed having ideas that were new to them: this person was undecided rather than in disagreement. A similar pattern was seen in response to the question 'Having ideas that are new to the contexts I am working in' although one more person strongly agreed suggesting that novelty in context is more important to this group than absolute novelty.

Over 80% of respondents also think that creativity involves changes in understanding indicating that most participants see strong links between creativity and learning. Respondents also see their creativity in terms of adapting ideas to new contexts. No-one disagreed with this notion, and only 2 were neutral. For the majority of respondents (81%), creativity involves doing the things they do differently. Only 2 people disagreed with this idea.

For these teachers, creativity seems to be less associated with making than it is with conceiving. 75% of respondents agreed with the statement, whilst the remaining 25% were split between disagreement and uncertainty. However, there was stronger agreement with the idea that creativity involves 'making things happen': 81% agreed with this statement and no-one disagreed.

For 56% of the group there was very strong agreement that creativity entails seeing things from different perspectives. One person disagreed, though, and 2 were unsure. 94% (15 respondents) agreed that creativity means going beyond what has been done previously in a specific context and 87% of respondents agreed that their creativity involved adapting new concepts to different contexts in ways that were meaningful to them. For 87.5% of respondents, creativity is related to meeting a perceived need or aspiration. No-one disagreed with this idea.

Respondents were slightly less positive with the linking creativity and problem solving per se. This suggests that the element of personal value and meaning is important. All respondents agreed that creativity may entail improvisation. But 94% agreed that creativity is involved transferring an idea or practice from one context to a different context

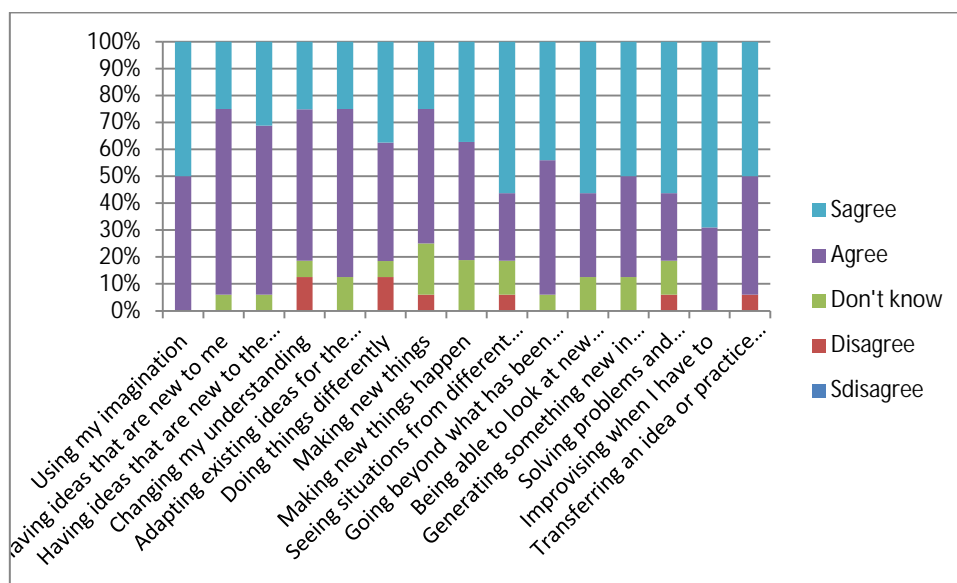**Figure 3** Comparative perceptions of creativity in professional roles

Figure 3 draws together the responses for each of the 15 dimensions. The most striking conclusion is that all these possible dimensions of creativity have significance and that most have significance for most of the participants. The two most commonly agreed elements are use of imagination and improvisation (both 100%), followed closely by having ideas that are personally new, and going beyond what has been done previously in a given context. The dimension with least positive responses is making new things. We have already suggested that this implies conceptualisation is more important than practical realisation of ideas.

What sort of things do you do in your work as a teacher/educator that requires you to be creative?

Turning to the more concrete expressions of creativity in the work context, it would appear that every aspect of a teacher's work contains opportunity for creativity and the potential to require a teacher to be creative. For example:

Lesson planning. Dialoguing with students. Time management *respondent A*

Teaching classes requires you to be creative as you need to constantly find new ways of engaging students and keeping them interested, particularly if the subject-matter is not that exciting *respondent B*

Assessments, presentations *respondent C*

Designing Media Broadcasting and Radio Programme Production programmes, Scriptwriting and Film Making. Sourcing inspirational content e.g. research material, video and audio clips *respondent D*

Try to engage students when they lose focus *respondent E*

The design & delivery of accredited and bespoke Management Development programmes tailored to unique corporate client requirements *respondent F*

Interacting with students in labs to try and convey information across in as understandable a way as possible. You learn how some lab groups react to different methods of teaching i.e. PBL, hands- on, quiz methods quickly and have to adapt classes to suit. *respondent G*

I have to be creative in creating teaching materials *respondent H*

something I did today with a group of 4th years. We were discussing the topic of the Good Life and moral values. We went outside, because it wasn't raining, and I had them pass around bowls with moral conversation starters in them. They had to each pick a question from the bowl and ask it of someone else in the group…it was much more interesting way to convey the meaning of moral values than sitting in a lecture hall *respondent J*

For example, to safe effort and time, I used to let my students to work in groups and they correct their errors in writing. It saved time and effort to correct the errors by myself. It was useful for both the students and me *respondent K*

I used to use pictures instead of words at home everywhere. I thought it was silly, but I discovered that the idea was very useful in helping and motivating me memorise words. I think it was creative because first, it resulted in a useful outcome and second it was new to me *respondent L*

Trying different ways of engaging students - e.g. on a topic, project - for maximum impact. *respondent M*

Giving example from client work here-using different metaphors to explain complex issues in performance-using river metaphor instead of Everest metaphor to explain performance...you shouldn't be in thin air when you are at your peak...unless you're a climber *respondent N*

Applications of creativity in the teaching process

Respondents were invited to give examples of how they had used their creativity in their teaching. What emerges from the illustrations is a sense that creativity is embodied in individualistic highly contextualised practices and that it can be a feature of almost any aspect of practice ie designing, learning activities including visits to particular spaces, devising and implementing teaching strategies particularly aimed at engaging students, choosing or producing resources to aid learning, encouraging students to reflect and the assessment of learning.

I come from a background of drama teaching so every lesson was an opportunity to create with students. I have brought a repertoire of creative exercises into other educational contexts- using role-play, improvisation, imagery etc to provide access to new ways of perceiving a topic/material. I am especially interested in the idea of poetic dwelling- that language is never enough and to attend to the presence of silences, the unsaid, the unsayable in the classroom. I also regard wonder as a creative force in education so being able to access an attitude of wonder is important to me as an educator. I see genuine, open dialogue as a central aspect of my work. Engaging students in socratic dialogue is to encourage a self awareness of our sedimented pre-conceptions and look for potential newness *respondent A*

I changed the way in which I assess students as an experiment to see if they would engage in the tutorials debates. It was creative as no one had done so before *respondent B*

The design and delivery of accredited and bespoke Management Development programmes tailored to unique corporate client requirements. Organisations have very specific structural and cultural educational requirements that I have to creatively satisfy on a daily basis *respondent C*

Quizzing the students on previous labs as they learn new information so that they can try and link the information together. Trying to get the students to interact more. Not seeing each lab as an individual entity but as a continuous stream *respondent D*

I used my creativity in designing a unit for painting art class that aimed to Teach Language and Culture through Pictures. Visiting a museum and creating comics were creative parts in the unit because the visit helped students to review what they have already known about American art history from 20th century until 17th century. The museum is an excellent place that represents a clear picture of history. Also, using comic cartoons create a sense of humour in class as well as provide a motivation for understanding abstract art. Additionally, it provides students with meaningful tasks that

will help them master the idea of abstract art through discussing some questions and analysing some pictures as well as drawing their own abstract art and giving presentations about it. *respondent F*

I teach family law and I have put extra effort in this semester in order to make the module more interesting for students. I redeveloped all the class materials to present them in a more visually appealing way. I also found video-clips and media articles and content (including documentaries) which were relevant to the topics we were covering and made them available to the students via hyperlinks on our on-line learning system. I also teach the topics in the module in a more modern way than family law is typically taught. The module typically focuses on marriage and begins from there but I began with other topical issues such as children's rights and the possible introduction of same-sex marriage as well as domestic violence. *respondent G*

I used to let students play the role of teachers in class. I found it useful for them to like and understand the lessons. *respondent K*

I use group activities and reflective methods as a way of being 'creative' to enhance student learning experiences - they usually aren't used to this and while nervous at first, they really reap the benefits of it. *respondent L*

Creating problem questions for tutorials and exam papers *respondent N*

CREATIVITY AND STUDENTS' LEARNING AND DEVELOPMENT

The scholarly innovation module also sought to develop understanding about the way teachers understood their students' creativity and creative development. The multidisciplinary group provided an ideal context for examining perceptions across the disciplines. Table 4 summarises a number of important beliefs about creativity that are relevant to teaching and student development.

75% of respondents disagreed with the statement, *Creativity is a rare gift which only a few people have,* suggesting that they see creativity as potentially available to everyone. One person did, however, strongly agree with the proposal. But a majority of participants (63.5%) also hold the view that some people are naturally more creative than others. Students' creative development is dependent on teachers believing that it is capable of being developed. 75% of respondents believe that *Most people can develop their creativity if they are given the opportunity to do so.* Despite believing that creativity is potentially accessible to most people, 92.5% of respondents (all but one) agreed that it is a significant challenge to cultivate students' creativity. Although they acknowledge the difficulty in achieving this aim, respondents were unanimous in believing that creativity should be a significant part of development for university students.

Respondents' views on the actual opportunities students have to be creative are completely spread, possibly reflecting the differences in disciplines and institutional practice. Just over half (56.5%) of the respondents felt that programmes are not designed to develop student creativity. In contrast to the curriculum, respondents are more positive about the

opportunities to be creative in co-curricular activities, with 56.5% agreeing with the proposition.

Table 3 Summary of beliefs about creativity that are important if teachers are to take an active role in developing students' creative potential

|	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
Creativity is a rare gift which only a few people have	31	44	19	0	6
Some people are naturally more creative than others	6	6	19	62.5	6
Most people can develop their creativity if they are given the opportunity to do so		12.5	12.5	44	31
Cultivating students' creativity is a significant challenge for university teachers			6	56	37.5
Developing students' creativity should be an important part of their development while they are at university				31	69
Students have lots of opportunities to be creative while they are studying at university	6	19	31	31	12.5
Students' programmes of study are designed to encourage their creative development	12.5	44	31	6	6
There are lots of opportunities for students to be creative their co-curricular activities		25	19	37.5	19
Students cannot be creative in their discipline before they have mastered a lot of subject knowledge and skill	19	62.5	12.5	6	
It's not possible to teach students to be creative	37.5	37.5	19	0	6
It's not possible to assess students' creativity	44	21	35		
The role of a teacher is to help students understand their own creativity and help them make claims with the evidence that they believe is appropriate		19	12.5	25	44
Effective use of creativity is dependent on other factors such as personal agency, disposition and having context relevant knowledge					

81.5% of respondents to not appear to see creativity as being dependent upon mastery of subject knowledge and skill, suggesting that even with relatively little knowledge and competence students have potential to be creative within the discipline.

Consistent with their belief that creativity is accessible to most people, 75% of respondents disagreed with the proposition, that it's not possible to teach students to be creative, suggesting that they believe creativity can be taught. 75% of respondents also believe that it is possible to assess creativity and no-one felt it is impossible to assess.

69% of respondents believe that the role of a teacher is to help students understand their own creativity and help them make claims with the evidence that they believe is appropriate. 88% of respondents believe that other factors are involved in making effective use of creativity such as personal agency, attitudes and context relevant knowledge.

Figure 4 collates the responses to each of the 13 propositions about creativity and student development. Whilst the variability in patterns may initially suggest contradictions in answers, it must be recalled that some questions were posed negatively and others positively. As we have seen, respondents are mostly consistent in their replies.

Figure 4 Summary of responses to 13 propositions about creativity that are relevant to students' creative development
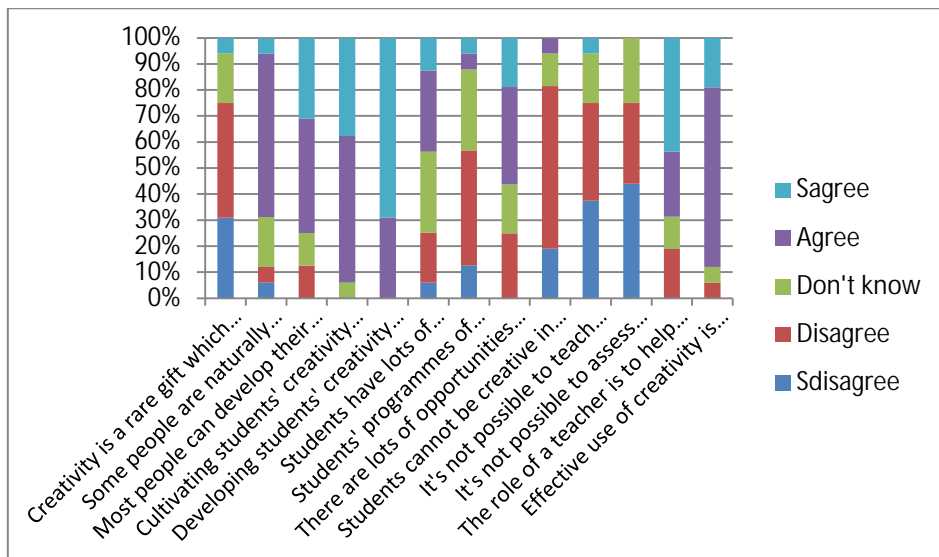
The figure reminds us that while the statement which achieved unanimous agreement was *'developing creativity should be an important element of HE'* this was followed by the recognition that *'cultivating students' creativity is a significant challenge'*. These two statements reflect both the aspiration and the reality of promoting and facilitating students' creative development.

Skills, qualities, attitudes and capabilities relevant to creativity

Respondents were unanimous in believing it is important to be imaginative in their field, irrespective of what their field is. Responses were more nuanced in their views on the importance of originality - to make new things or do things no one has done before. Nevertheless, the majority (62.5%) felt this to be important.

The ability to adapt, contextualise and combine ideas is also seen as a very important creative capability . This ability is seen to even more important than having imaginative new ideas with 75% of respondents rating it very important. A similar proportion of respondents emphasised the importance of being resourceful - using whatever knowledge and resources are available to tackle a problem or opportunity. Views are more varied on the importance of being able to combine and make connections, though the majority (81.5%) did see this as important. 83.5% of respondents also saw that being able to think critically and analytically to evaluate ideas and possible solutions and make good decisions was also an important capability: only one respondent did not see this as important. Only 2 respondents (12.5%) did not feel it is important to be able to represent and communicate ideas in order to inform or persuade others. There was total unanimity on the importance of having an enquiring disposition and being curious, willing to explore or experiment. Consistent with this attitude is the willingness to take risks: with a single exception, respondents believe it is important to

take risks. Slightly more respondents (4) felt it was not important to be able to cope with uncertainty when venturing into the unknown. Slightly more (81% compared to 75%) saw the importance of being able to cope with complexity. But respondents were unanimous in seeing the importance of perseverance. For 62.5%, this was deemed a very important disposition. Despite variations in their individual responses, 87% of respondents said it was important to possess all these competences with 56% saying it is very important. Two individuals (12.5%) were neutral but no-one disagreed.

Table 5 Skills, qualities, attitudes and capabilities relevant to being creative in a disciplinary field based mainly on the work of Jackson and Shaw (2006).
Key - 1 = not important 5 = very important

	1	2	3	4	5
Being imaginative - to generating new ideas and see new possibilities				50	50
Being original - to make new things or do things no one has don before		12.5	25	25	37.5
Being inventive with someone else's ideas - adapting, contextualising, combining				25	75
Being resourceful - using whatever knowledge and resources are available to tackle a problem or exploit an opportunity				25	75
Being able to combine, connect, synthesise complex and incomplete data/situations/ideas/ contexts		6	12.5	19	62.5
Being able to think critically and analytically to evaluate ideas and possible solutions and make good decisions			6	31	62.5
Being able to represent ideas and communicate ideas to inform and persuade others			12.5	37.5	50
Having an enquiring disposition - being curious, willing to explore or experiment				37.5	62.5
Willing to take risks - to tackle unfamiliar problems in unfamiliar contexts or situations			6	50	44
Able to cope with uncertainty			25	25	50
Able to cope with complexity - information, relationships, situations			19	25	56
Willing to persist and try again if not successful				37.5	62.5
All these things are important			12.5	31	56

Several additional factors attributes were mentioned as being of particular importance to being creative in a discipline. These included:

- The attitude of wonder is integral to being creative for phenomenologically oriented psychotherapists - the capacity to bracket off preconceptions, tolerate uncertainty and perceive newness.
- Self awareness, accepting 'failure' and learning from it to try again.
- Collaborative skills
- Meta cognitive abilities, mental imagery (visual object imagery and spatial imagery).

How well does the curriculum support students' creative development?

In his article on an imaginative lifewide curriculum Jackson (2011) outlined a set of propositions for a curriculum that he believed promoted students' creative development. These were incorporated into the questionnaire in order to evaluate the extent to which respondents believed they were being fulfilled in their own curricula.

As might be expected, all respondents reported significant or comprehensive curricular

opportunities to develop subject-specific knowledge and skills. It is perhaps more surprising that 31% of respondents feel their curriculum does not encourage enquiry. An even greater proportion, 37.5%, of respondents say that their curriculum gives learners little opportunity to engage in challenging situations. Only 19% say they offer comprehensive opportunities.

50% of respondents say that their curriculum provides little or no experience of working in unknown circumstances, and 31% of respondents do not feel their curriculum encourages learners to be enterprising, given the nature of modern day life and work. It is perhaps also surprising that 25% of respondents should feel the curriculum does not enhance collaborative learning while 31% of respondents do not believe their curriculum to develop the repertoire of communication and literacy skills they need to be effective in a modern culturally diverse world. Nearly half (43.5%) of respondents do not think their curriculum supports the development of persistence and resilience, characteristics which can enhance both personal and professional life. Given their importance in professional life it is also surprising that 37.5% of respondents do not think the curriculum encourages self-direction, self-regulation and reflexivity. However, 75% of respondents believe their curriculum supports problem solving in which there is more than one right answer. But 31% of respondents do not agree that their curriculum rewards novel solutions. It is disappointing that unsuccessful risk-taking should be penalised, with 56.5% of respondents saying this is the case.

Table 6 Extent to which design characteristics that are supportive of students' creative development (Jackson 2011) feature in students' curricula experiences
Key - A) Not at all B) A little C) Significantly D) Comprehensively

	A	B	C	D
The curriculum gives learners the opportunity to develop detailed knowledge about the subject and the skills to use and apply the knowledge			75	25
The curriculum encourages learners to develop an enquiring disposition and create their own learning processes		31	56	12.5
The curriculum gives learners the opportunity to immerse themselves in challenging situations that inspire, engage and develop them		37.4	44	19
The curriculum provides learners with experiences of working in uncertain and unfamiliar situations where the contexts and challenges are not known	25	25	31	19
The curriculum encourages learners to be creative, enterprising and resourceful	6	25	56	12.5
The curriculum enables learners to develop relationships that facilitate collaborative learning		25	56	19
The curriculum enables learners to develop and practise the repertoire of communication and literacy skills they need to be effective in a modern culturally diverse world		31	56	12.5
The curriculum supports learners when they participate in situations that require them to be persistent and resilient	6	37.5	44	12.5
The curriculum encourages and enables learners to be wilful, self-directed, self-regulating, self-aware and reflexive	12.5	25	50	12.5
Problem solving involves problems that permit a range of possible solutions rather than single right answers		25	50	25
Novel solutions are rewarded as well as standard answers are.	6	25	44	25
Students are encouraged to take risks without being penalised if they are not successful	12.5	44	25	19

Figure 5 collates the data for the curriculum design features that are considered valuable in promoting students creative development. It is apparent that the curriculum remains focused on traditional disciplinary knowledge and skills (100% agree) whilst opportunities for working

in unfamiliar situations, for taking risks without fear of being penalised if not successful and for developing resilience in the face of failure are less well developed.

Figure 5 Summary of responses to questions about whether design characteristics that are supportive of students' creative development currently feature in students' curricula experiences
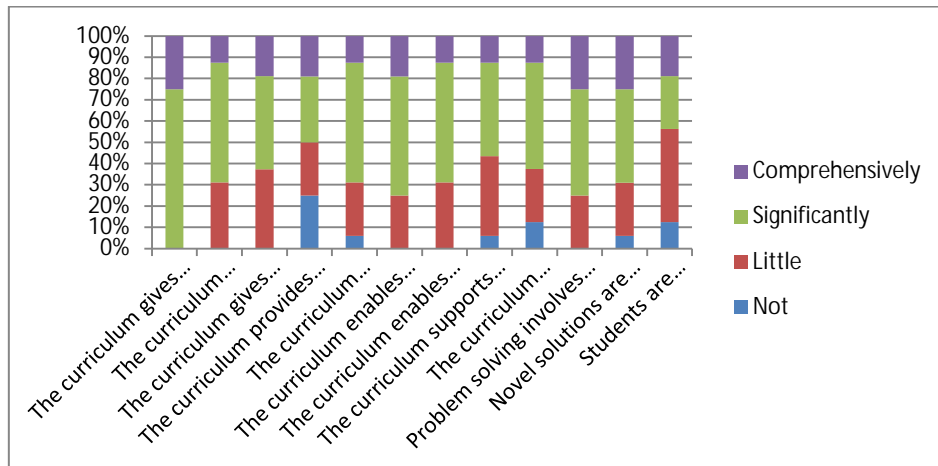
ENVIRONMENTAL FACTORS

Factors/conditions that encourage creativity

Respondents to the email survey were asked the questions 'what enhances and what detracts from their creativity?' Their replies relating to the enhancers of creativity can be grouped under three main themes:

- Interpersonal relationships (affective needs)
- Personal challenge (self-actualisation)
- Learning from others (professional development)

Interpersonal relationships

The importance of having positive relationships with both colleagues and students emerges.

There may be a sense of security in

Having colleagues who are creative/open *respondent A*

which encourages experimentation.

The two-way process of creativity is also remarked upon by 4 respondents, who acknowledge the impact of the

Vibe of the students and their desire to push boundaries, innovative, develop *respondent H*

Having a responsive and interested group of students. Having a good dynamic within the class group *respondent C*

I want my students to enjoy their classes and I believe that they learn more effectively if they can see their lecturer's enthusiasm (which is typically reflected in efforts to be imaginative and creative in teaching) *respondent G*

Positive relationships appear to fulfil an affective need on the part of the teacher, but this has a direct effect on their desire to give their best to their students.

Respondent G makes explicit the reciprocal efforts to be creative that stem from a tacit response between teacher and student. This sense of responsibility suggests professional pride and responsibility, as expressed by one teacher:

When I really like my students and I don't want to let them down *respondent D*

Personal challenge

The importance of relationships is closely linked to individuals' need for self-actualisation through challenging themselves. Some comments imply that there is a fear of losing face that helps them respond to challenge:

Necessity! Desire not to be boring *respondent N*

Research pressures *respondent B*

The nature of my work as a teacher. The updated technology *respondent K*

Learning from others

Building on the theme of personal relationships, respondents are open to novelty and are keen to learn from others.

Past successes, meaningful collaboration with others, learning new things from people around me *respondent L*

Listening and observing the way others do things. Discussing ideas with others. Watching films, listening to music and reading *respondent C*

Observing other teacher's classes and seeing how creativity might play out in classroom. Watching videos to see how music and songs might be used in the classroom *respondent F*

Significantly, these comments reflect active collaboration through discussion as well as observation. They also indicate the value of resources from the world of film and music, in addition to more 'traditional' printed matter.

Respondent C pulls together the three themes, concluding 'Most of all a space to dedicate to experimentation/writing is important.'

Factors/conditions that discourage creativity

The detractors from creativity fall under two themes:

- Negative attitudes (on the part of others)
- Things beyond the individual teacher's control

Negative attitudes

Some of the obstacles to creativity are the mirror image of the enhancers, for instance lack of interest by colleagues or students, which lower teacher morale:

Lack of interest, vision and curiosity in others *respondent A*

Putting a lot of effort in and students not appreciating it at all or not engaging with you by providing feedback on your efforts *respondent G*

Respondent G is reluctant to criticise these students, though, adding

I have learned, however, that sometimes this is simply students perhaps being too shy to speak up so I try not to let that put me off.

Another respondent also alludes to inhibitors to creativity which are not intentionally deployed by students, but rather are the result of limited capacity, expectation or experience:

influence of the people who surround you, [including] influence of the students in terms of ability, understanding, willingness to participant/discuss *respondent E*

There is an overt association between lack of interest and esteem for the teacher's role:

No recognition and no value placed on teaching *respondent D*

This can be reflected in tangible forms such as perceived inadequate salaries, as noted by respondent K.

Things beyond teachers' control

The last point might also be seen as something beyond a teacher's control. Other practical obstacles to creativity are clustered around common themes:

Module constraints

These can be the teaching environment, resources available, departmental pedagogical policy or the size of groups:

Module outlines, numbers of students in a class/lab, unresponsive students *respondent E*

The obligation of using specific teaching methods or materials in classroom discourage creativity *respondent F*

In most cases, I feel that education kills creativity by encouraging students to think in a particular way towards a certain subject/topic in exchange for a grade *respondent H*

Time constraints

Time is an important issue for respondents, whether for delivering a module or having space to reflect e.g.:

[Lack of] Time and often the tight scope of teaching *respondent H*

Lack of time to think *respondent N*

Another respondent describes the sense of overload created by having multiple roles:

Administration duties and sometimes taking on too many 'side projects' *respondent C*

Fear of change/risk-taking

This could arguably be another example of negative attitudes, but has been placed here as something which is beyond the control of individual academics because they may not be in direct contact with the sources of inhibition.

Lack of interest, vision and curiosity in others. Others' fear of change. Others' need for certainty *respondent A*

Expectations abound on a particular approach in our Faculty…need for freedom to explore alternatives *respondent M*

Feeling that that you are constantly watched while you are working *respondent F*

We can summarise the enhancers of and detractors from creativity as shown in Table 7.

Table 7 Enhancers and detractors from personal creativity

ENHANCERS	DETRACTORS
Positive attitudes - self belief and confidence Encouraging & supportive interpersonal relationships Managerial encouragement & support Supportive professional network	Negative attitudes (self and others) Lack of managerial support and encouragement Fear of failure, unwilling to take risks
Personal autonomy and freedom to choose how to do things, and challenge	Lack of autonomy - need freedom to explore Under surveillance - constantly being watched
Sufficient time and space	Module constraints Time and workload constraints Management/organisational values
Opportunities for development, learning from and with other	Lack of recognition

Favourability of work environment

The final question in the email survey asked respondents how favourable for creativity their working environment is in general and how it might be improved to promote greater creativity. Responses are consistent with those to the two previous questions, endorsing the enhancing factors and suggesting means of addressing the detractors to creativity, viz. institutional values, positive working relationships supportive of exchanging ideas and practices, and opportunities for personal development.

Creative working environment

Most respondents are satisfied that they are, in general, able to be creative. This is partially thanks to being able to liaise with likeminded colleagues

> I am in a supportive learning community....excellent, creative mentors and with access to a network of fellow wonderers *respondent A*

The cross-fertilisation between departments is valued

> Interaction from across departments and across the university to see what creative methods others use in teaching/research *respondent E*

It is explicitly recognised that senior management values must be receptive to creativity if it is to be achieved institutionally:

> This really depends on institutional leadership and the values that are espoused. Creativity on a micro-level is often within your control; beyond that point, if your creativity is not viewed as worthwhile by the institution the environment becomes less favourable and in my experience often hostile. Overall my work environment only supports creativity if it supports a very narrow and predetermined set of values *respondent D*

Hence respondent C feels

> generally I have a lot of freedom to arrange my classes as I choose.

Another response touches on the need for openness:

> [I work in] A friendly, informal, and open minded environment which promotes ideas or some form of creativity *respondent H*

Support is also manifested in the provision of workshops, which both motivate and develop new competencies:

> my work environment encourages me to be creative. It opens my mind to use new tools of technology. Also, it provides free sources to gain information. In addition. I deal with people who are open for new ideas and thoughts. It runs a lot of workshops that meet the needs of development *respondent F*

The availability of these, free of charge to the academic, is important.

A small number of respondents suggest that their ability to be creative is conditional or limited. Reflecting the words of respondent D, above, we again note the negative impact of bureaucratic demands:

> I would say that my environment does allow me to be creative for the most part. Of course there are some bureaucratic factors that seem to stifle creativity - but for the most part the environment I create does foster creativity *respondent J*

Hope for change, though, is offered by this respondent, who records

> I started a new job in January and any ideas I have put forward to date have been welcomed and supported (even though they are used to doing things 'a certain way') *respondent L*

Suggestions for enhancing creativity in the work environment

Once more, responses show consistency with previous replies. The proposals for enhancing the creativity of the working environment complement to detractors from creativity (bureaucracy, time and resource constraints, departmental ethos) and identify concrete mechanisms for addressing them.

Respondent B asks for

> More clearly defined work roles

and raises the issue of time, requesting

> less pressure to do everything all at once within the context of working 7 days a week to achieve these workload model pressures.

Others also return to the issue. This person is able to take control:

> Of course there are some bureaucratic factors that seem to stifle creativity - but for the most part the environment I create does foster creativity *respondent J*

but the following respondent reveals a sense of disappointment at being unable to achieve their own high expectations, and a sense of helplessness in dealing with the problem:

> a lack of time and space to be creative is often a problem. With a heavy teaching and admin load, sometimes there simply isn't time to focus on how to do things creatively. Rather, one has to focus on simply getting them done at all. I'm not sure how this can be remedied *respondent G*

There is clear cynicism in some respondents regarding the artificiality of module formulae

> 12 weeks of lectures with tutorials equals to a module structure but it does not equate with a creative learning environment *respondent M*

In more positive vein, respondent K proposes that a way forward would be to give creativity a more central status as a skill

To think of creativity as a skill. To see it in a positive light. To know how to build confidence through creativity. To make use of collaborative creative thinking *respondent K*

Proposals for enhancing creative working environments

Table 8 summarises the factors and conditions that respondents' explicitly or implicitly identify as influencing their creativity and the suggestions they offer for improving matters.

Table 8 Enhancing the work environment so that it is more supportive of creativity

ENHANCERS	DETRACTORS	FAVOURABILITY	PROPOSALS
Positive attitudes, self-belief and confidence	Negative attitudes (on the part of self and others)		
Personal challenge Personal autonomy	Insufficient challenge Insufficient autonomy		
Encouraging and supportive interpersonal relationships		Informal and open relationships, supportive professional networks and managers	
Resources & structures Having sufficient time and space	Time constraints Heavy work loads Module constraints	Supportive institutional/ departmental ethos Professional freedom Availability of (free to user) resources and workshops	Defined roles Time to achieve to high level Reduce bureaucracy Review module constraints
Opportunities to learn from and with others	Lack of opportunity to develop, lack of recognition for creative efforts	Opportunities for personal development Cross-fertilisation of practice/ideas	Raise status of creativity to core skill

It reveals that creative working environments thrive on openness and interaction; they require senior management and peer support for practical reasons, like provision of resources, and for affective reasons relating to confidence and persistence. There is acceptance of some degree of boundaries, but a sense that module constraints may be impairing creativity.

DISCUSSION

The University of Limerick's 'Scholarly Innovation and Creativity Module' forms part of a programme to support the development of high level, evidence-based competence in teaching, learning, scholarship and innovation in higher education settings. The approach adopted by the module leader was to incorporate relevant scholastic theory into an active learning process in which participants' own experiential knowledge and beliefs about creativity became an important resource for personal development. The sharing, capture and curation of participants' personal knowledge was central to the design and implementation of

the process (see Jackson in prep) and this synthesis is an important part of the scholarly retrospective sense making of the knowledge that was developed through the co-creative process.

This was a novel situation for the module facilitator who had never had the opportunity to work with and engage a group of academic staff over two days on the topics that formed the basis for the course. While he had used similar approaches to information gathering have been before they had not been combined and embedded in a professional learning process.

The study is interesting because of the diverse backgrounds of participants. The fact that so many perspectives were provided from so many different disciplinary backgrounds made this study particularly valuable. The pattern of responses to many of the questions was similar to what has been discovered before in similar surveys of beliefs about creativity in higher education teachers (Jackson 2008, Jackson and Shaw 2006).

If this group is a representative sample of early career higher education teachers then we might anticipate that a significant majority of academics believe that they are creative and that they utilise their creativity in designing and implementing the curriculum, their teaching and in encouraging and supporting student development. It is also encouraging that a majority of them believe that students' creative development should be an important aspect of their overall development while they are studying in higher education and that creativity can be developed through particular curricular experiences and learning activities, and that it can be assessed although this is one of the more challenging areas for practice.

Sharing perspectives on creativity and appreciating the patterns of responses that emerge is important for conducting developmental conversations in higher education professional communities. But it is no more than an initial step and the most important challenge is for individual practitioners to act on their beliefs and create practices that create meaningful experiences for students that enable them to use and develop their creativity. It is particularly heartening that this group of teachers overwhelmingly feel their organisational environment is supportive but there are, in their responses, suggestions for how the university might encourage further the creative efforts of their staff. The message is clear that students' creative development involves a partnership between students and teachers and between the university and its staff and students.

ACKNOWLEDGEMENTS

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