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**Conceptualisation of
constraints on creativity in
teaching in higher education:**

**Towards the
possibility of challenging
practices in an Irish university**

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**This dissertation is submitted in fulfilment of
the requirements for the award of the degree of
Doctor of Philosophy**

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Abstract

Creativity in relation to teaching has become a fundamental political and philosophical concern that has shaped a new paradigm of higher education (HE), in the context of a social and economic change. Yet, the instrumentalist policy discourse of creativity within HE, it can be argued, contradicts its intrinsic potential as a means for individuals' transformation and autonomy, which should be core values of a university system. As a result, this top-down political discourse of creativity is often disconnected from teaching practices. In this context, academics feel constrained in their creative teaching.

This study explores in depth the constraining mechanisms on academics' creative teaching within HE. From a critical perspective, it questions academics' perceptions of the constraints they experience. The specific research questions that this study aims to answer are:

- *What are the factors contributing to the gap between top-down political discourses encouraging creativity in terms of teaching in higher education and teaching practices on the ground?*
- *What conception do teachers have of the constraints on their creativity in terms of teaching experiences within their institutional and disciplinary context?*
- *What may be the most appropriate research methodology to explore constraints on creative teaching experiences, perceived by academics in HE?*

Moving away from an individualistic approach to creativity, the core data of this study was gathered through an action research project based on interdisciplinary collaborative enquiry group with academics from NUI Galway.

The research outcomes of this study contribute to an understanding of the difficulties of attempting to capture academics' creativity in teaching, and of the constraints on creativity in teaching in higher education. By looking at the interaction between academics, their disciplines, and the *social imaginary* of their disciplinary communities, it offers a novel theoretical framework for understanding these constraints and demonstrates the contradictions in academics' accounts. Furthermore, this thesis calls for emancipation from the current university system which stifles creativity as a potential means of challenging social norms.

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“In order to draw, you must close your eyes and sing.”

Pablo Picasso

**To Alexandre,
my brother,
who challenged the probable future that the,
education system had imagined for him**

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Declaration

I certify that the thesis is all my own work and I have not obtained a degree in this University, or elsewhere, on the basis of this work.

Some of the results of this study have been presented in:

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Aurélie Boulos

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Chapter 1: Introduction

1.1. Setting the Scene

This PhD research is rooted in my experience as an undergraduate student, which took place in France several years ago, at Sciences Po. Sciences Po is a French 'Grande Ecole', a unique product of the French educational system. France is the only place to have a dual higher education system formed by Universities and Grandes Ecoles. These latter have no equivalent worldwide. They require very competitive selective entry exams (Brezis and Crouzet 2004) and the rhythm of work inside is extremely intensive, and very often felt as unbearable by students. Yet, these Grandes Ecoles are much sought after because they offer greater chances for students to obtain employment at the end of their education, as they form the elites leading the French State¹ (Brezis and Crouzet 2004). In the case of my school, an enormous amount of theory was part of the learning process. However, space for personal development and exploration of creative possibilities in terms of learning were non-existent and became a source of frustration. More precisely, the criteria of assessment were focused on academic knowledge but did not leave space for any creativity or personal inventiveness. In addition, they were frequently irrelevant to students' lives. Yet, the work of the French sociologist Bourdieu (1984, 1986, 1989; Bourdieu and Passeron 1964, 1970) on the French educational system had considerably influenced humanities and notably the French education literature. Bourdieu suggests that the students' cultural and social capital in this environment gave them the skills to perform academically with success (Bourdieu 1986). Moreover, their capital provides them with the competencies to respond to the entrance criteria of these schools. In that sense, the Grandes Ecoles have the specific role of encouraging a system of the reproduction of elites and maintaining social hierarchies (Bourdieu 1989).

Yet, several questions and hypotheses can be raised with regard to this elitist educational system. Firstly, today, many of my fellow students are employed in the most prestigious French administrative offices because of

¹ The Grande Ecoles require very competitive selective entry exams and only 5% of the French student population accesses these schools. In order to prepare for these entrance exams, after high school, students apply to be admitted to a "Classe préparatoire", where they work intensively for 40 hours of courses a week and are constantly tested.

their education. Yet, will they be better leaders than those who are not as highly qualified? The American psychologist Sternberg has worked on the relation between cognition, human intelligence and creativity (1985, 1990, 1999, 2007; Sternberg and Williams 1996; Sternberg et al. 2002) and in his recent work (Sternberg 2010), he criticizes American admissions to selective and elite universities. This system seems to share some similarities with the elitist French system. Both systems hold a very narrow conception of what intelligence is. This conception neglects creative and practical intelligence as well as “wisdom” and is reflected in a very traditional approach to teaching and assessment. Sternberg believes that such neglected forms of intelligence are essential for students’ success within the university but also individuals in the outside world and the job market. As he argues:

Kenneth Lay, who like Jeffrey Skilling was both a former CEO of Enron and a convicted felon, had earned a doctorate and was a professor of economics. Did academic knowledge save him from helping to destroy a company with thousands of employees and customers? Apparently not. Of course, there are many well-educated people who are wonderful citizens and great leaders. But to the extent they are either, it may be not because of their knowledge base, but rather they understand what to do with it (Ibid: 7).

Along this line, whether the French ‘Grandes Ecoles’ are symbols of excellence and elitism, they should arguably equally take into consideration ‘humanist elitism’, by which I mean the development of graduate attributes such as creativity and wisdom in order to make a positive difference to the world. If creativity was valued by this system in terms of learning and teaching experiences, it may be argued, students would gain academic, but also social and human, skills relevant to the outside world. In addition, it is quite possible that such would also lead to a widening of access to a broader range of potential students for the Grandes Ecoles. As Sternberg suggests:

We need to move beyond our horse and buggy mentality in educational instruction and assessment, and to admit students to college not just on the basis of their academic skills with a few other extras thrown in, but rather on the basis of a student's overall potential to make a positive difference to the world. We can do a much better job of college admissions, as well as instruction and assessment, if we think about student abilities in a broader way than we have-in particular, by valuing, assessing,

and teaching for analytical, creative, practical, and wisdom-based skills as well as for memory (Ibid: ix).

Sternberg's observation on educational admissions, instructions and assessment echoes strongly the issues I wanted to explore in relation to my experience of the French higher education system. In order to begin reflecting on this experience, my MA research in England² represented the start of my journey as I discovered a new higher education (HE) system and further possibilities for researching the links between creativity and education. My Master's thesis (Boulos 2008) was on creativity in relation to notions of 'the knowledge economy' and the 'creative industries' which encourage creativity enhancement within the UK educational system.

1.2.The importance of creativity in higher education

Hence, beyond my French educational experience, I discovered through my MA thesis research, the importance of creativity as a core concept of numerous policy documents at the national level, notably in UK, but also at the European and international level. Several strands within these policies are highlighted in this section.

1.2.1. Creativity and socio-economic claim for change

The political argument supporting creativity enhancement in higher education in terms of teaching and learning experiences relates initially to the socio-economic demands for change. Creativity seems to be a driver of the 'new economy'³. Contemporary society is characterised by complex change processes that influence all spheres of life. The European University Association's report (EUA 2007) claims the core of those changes is the transition to a 'new economy' where the relationship between investment, technology, human capital and growth is fundamental. In the same vein, the American urban studies theorist, Florida⁴, and the Italian economist, Tinagli (2004) were commissioned to write a report for the Think Tank *Demos*⁵. In their report, they argue that changes are affecting every sector of the economy, in which competitiveness and wealth become determined increasingly by the capacity for innovation and

² At the University of Exeter

³ The term 'new economy' described the transition from heavy industry to a new technology-based economy, starting in the late 1990's. Charles P.Alexander originally entitled his article 'New economy' in Time magazine in 1983.

⁴ Florida is an American urban studies theorist, best known for his concept of the 'creative class' expressed in Florida,R (2002) *The rise of the creative class*, Richard Florida :NY. Florida's theory asserts that metropolitan regions exhibit a higher level of economic development as they concentrate technology workers, artists or musicians. Florida refers to these groups collectively as the 'creative class'.

⁵ Demos is a think-tank focused on power and politics that has extensively explored the role of creativity in the sociocultural changes of the 21st Century : <http://www.demos.co.uk/>

creativity. However, contrary to traditional models in which economic growth comes from companies, jobs or technology, economic growth turns upon 3Ts: Technology, Talent and Tolerance. Talent refers to human capital and the idea that educated people are the key driver of economic development. Tolerance affects the ability of nations to mobilise their own creative capacities or attract talent. Thus, both talented and creative people are sources of the technological success and economic competitiveness of a nation.

Thus, the key dimension of economic competitiveness no longer lies in “large endowments of raw materials or natural resources or even labour cost advantages” (Florida and Tinagli 2004:5) but rather, it turns on the “ability to attract, cultivate and mobilise creative assets” (Ibid). In this new economic context, the imperative to foster creativity in business is at the core of national political discourses.

This discourses echoes strongly European policy development, which sees creativity as a trigger for innovation and an essential asset for long-term economic growth. The 'European Year of Creativity and Innovation'⁶ in 2009 put the theme of creativity at the centre of the European political debate. In the context of the European Year, Cachia et al. (2009) undertook a literature review entitled *'Innovation and Creativity in Education and Training in the EU member States: Fostering Creative Learning and Supporting Innovative Teaching'* for the European Commission Joint Research Centre's Institute for Prospective Technological Studies⁷.

This programme aimed to promote public debate on creativity and the capacity for innovation favourable to entrepreneurship and citizens' personal development (Ibid:9). In addition, numerous policy documents emerged. The Council of the European Union's (2009) policy document states, “a key factor for future growth is the full development of the potential for innovation and creativity of European citizens”. Another document from the European Parliament and the Council of the European Union (2008) also argues that creativity, knowledge, flexibility and innovation are crucial in a time of rapid technological change, as they enhance citizens' well-being and provide career opportunities.

⁶ http://create2009.europa.eu/about_the_year.html

⁷ The European Commission Joint Research Centre Institute for Prospective Technological Studies is one of the seven scientific institutes of the European Commission's Joint Research Centre (JRC). Its research supports the policy-making activities of other Directorates General of the European Commission and notably of the Directorate-General for Education and Culture, on topics relevant to innovative and creative teaching and learning practices

Europe needs to strengthen its capacity of creativity and innovation for social and economic reasons in order to respond effectively to the development of the knowledge society: innovative capacity is closely linked with creativity as a personal attribute, and to be harnessed to full advantage it needs to be widely disseminated throughout the population (Ibid:3).

1.2.2. Higher education and creativity

It is not surprising then that creativity became, over the last 10 years, a fundamental issue that shaped higher education at the international, European or even national level. The European Council's (2001) political declaration on the Lisbon process, which contains a focus on creativity in higher education, is undeniably seen as a cornerstone within the European policy landscape. The European Council's intention was to weave together the social and the economic aspects of European integration. Making Europe the most competitive region by 2010 but also the most socially cohesive area of the world, were two ambitious Lisbon goals. The dual function of education in constructing national identities and preparing young people for the labour market was seen as a fundamental element in achieving these goals (Ibid). A top-down European political consensus has emerged, then, on the role of higher education to develop knowledge societies and to contribute to the social, economic and cultural development of nations. The challenge to higher education providers has become how to build an education system that will be equipped to meet the needs of society in the 21st Century. Thereby, a perceived need for a new paradigm of higher education in a world undergoing rapid changes has become crucial. The UNESCO (1998) World declaration states: "There is an unprecedented demand for change and a great diversification in higher education, as well as an increased awareness of its vital importance for socio-cultural and economic development; and for building the future, for which the younger generations will need to be equipped with new skills, knowledge and ideals" (art 9). In that sense, innovative and creative educational approaches, in order to facilitate students' acquisition of skills and competencies for communication and critical analysis, are required (Ibid). Along these lines, the 'Creativity in Higher Education' project initiated by the European University Association (EUA) and co-funded by the Socrates Programme of the European Commission was designed as an exploratory activity to enhance the understanding of the creativity concept. An EUA report (2007) emerged from this work. It mentions that the project aimed at contributing to "the

advancement of the European knowledge society by identifying good practices and providing higher education institutions and their major external stakeholders - governments, quality assurance agencies and other partners - with operational recommendations on how to foster creativity” (Ibid:8).

Beyond these various documents, my work experience⁸ within UNESCO, OECD and the European Commission Directorates for Education, confirmed to me that creativity is at the core of international HE concerns. As a member of the organising team for the 2009 UNESCO World Conference⁹, I was in charge of various parallel sessions during the conference. One of them, entitled ‘World-Class Universities’ and funded by the World Bank, dealt with creativity and innovation as tools to enhance World-Class Universities.

In addition, the OECD utilised my research expertise for the organisation of the 2010 Institutional Management in Higher Education (IMHE) General Conference¹⁰, on the future of higher education management. The director of OECD/IMHE and his team believed that creativity was an essential issue in terms of higher education management. They asked me, among various tasks, to facilitate a thematic discussion session on the topic of creativity in higher education in relation to the conference theme. Participants were asked to gather in small groups around tables, discuss a question related to creativity and higher education and write a summary of the discussion on a card¹¹. In addition, I was in charge of the organisation of the creative and interactive aspects of the IMHE General conference. I undertook, with two other members of CELT, Dr. Mac Labhrainn and Dr. Coate, ‘vox pop’ interviews to poll participants’ perspectives of this OECD event. As an outcome, we produced a video screened during the last plenary session as the finale of the conference¹². As I will explain in chapter 3, throughout my research, I produced video-clip interviews with academics, and this experience considerably helped me to undertake ‘vox pop’ interviews. Furthermore, I also had the opportunity to expand my network through meeting numerous participants who were institutional managers, policy makers or academics interested in the topic of my PhD.

⁸ During my PhD process, I undertook several breaks to work within UNESCO, OECD and the European Commission Directorates General for Education. From May until August 2009 at the UNESCO in Paris; August until September 2010 at the OECD in Paris; October 2011 to November 2012 at the European Commission in Brussels.

⁹ Conference website available from: <http://www.unesco.org/new/en/education/themes/strengthening-education-systems/higher-education/reform-and-innovation/world-conference-on-higher-education/>

¹⁰ Conference website available from: <http://www.oecd.org/site/eduimhe10/>

¹¹ See appendix I: example of written answers from participants at the OECD/IMHE General Conference thematic lunch on creativity in HE.

¹² Video can be found on the OECD/IMHE General Conference Multimedia page, available from: <http://www.oecd.org/edu/imhe/imhegeneralconferencemultimediapage.htm#2>

Finally, from October 2011 to November 2012, I worked within the Directorate-General for Education and Culture at the European Commission as an intern and, subsequently, Policy Assistant to the Deputy Director General for Education and Culture. Throughout this extremely valuable experience, I noted that the concepts of innovation and creativity are at the core of the EU education policy-making strategy. For example, I was involved in the production of the EU Commission (2012) Communication entitled 'Rethinking Education'¹³. This Communication gives policy recommendations to Member States on how to undertake the necessary changes in their education systems to provide students with the right skills for the 21st century. Innovation and creativity in teaching and learning approaches are concepts put at the core of this document.

While participating in the drafting of this document, I realized however the top-down technocratic views of my colleagues on education, skills and creativity were regularly disconnected from the reality of what happens in educational institutions, and from academic practices. EU technocrats tend to use the concepts of creativity and innovation as "buzz words" without trying to fully understand the nature of creativity and what specific creative practices require to be implemented on the ground.

Relevant events were organised by the Commission during the European Year of Creativity and Innovation, such as the conference entitled '*Can creativity be measured?*' (Brussels 2009) which brought international experts together to contribute to the debate on the measurement of creativity within education contexts. The conference programme mentions that one planned outcome was "to propose a feasible measure of creativity using existing statistical sources. This should provide a list of a limited number of indicators covering the various dimensions of creativity"¹⁴. I can argue however that no policy making process covering the topic of creativity in which I was involved, related to such an outcome. Time constraints and difficulties in data management very often prevent colleagues of the Directorate for Education and Culture from taking advantage of the outcomes that such events can yield. One of the most important axes of the future strategic orientation of the Directorate for Education and Culture focuses however on ensuring better availability and

¹³ Communication from the Commission adopted on the 20th of November 2012, available from: http://ec.europa.eu/education/news/rethinking_en.htm

¹⁴ The conference 'Can creativity be measured?' was organised by the Directorate for Education and Culture of the European Commission in Brussels in 2009, programme available from: http://ec.europa.eu/education/lifelong-learning-policy/creativity-conference_en.htm

management of data, and the nurturing of evidence-based policy formulation.

Finally, I noticed that the EU policy makers' conception of innovation and creativity was mainly technology and science driven. Similarly, the research report of the *National Endowment for Science, Technology and the Arts*¹⁵ (NESTA 2009) in the UK, on innovation policy, calls on government not only to embrace technological and scientific, but also 'soft' innovation activities.

All in all, my experiences within these three different organisations taught me that creativity and innovation are fundamental concepts in international and EU HE policy-making. Yet, I also discovered top-down policy making on innovation and creativity in education is not necessarily in line with the bottom-up reality. A greater understanding of creativity in the context of education, as developed in the next section, is useful to understand such a gap.

1.3. Definition of creativity in the context of education

My research takes place in the Irish HE national context which will be further described in a later section. Yet, for proximity and socio-historical reasons, the Irish HE scene is receptive to the UK political discourse on education, where creativity in education had received much attention. The National Advisory Committee on Creative and Cultural Education's (NACCCE 1999) report, conducted by Professor Ken Robinson, made recommendations to the UK Secretary of State for Education and Employment and Secretary of State for Culture, Media and Sport, on the creative and cultural development of young people through formal and informal education. The report has been one major reason why creativity has been placed at the centre of UK education policy (Craft and Jeffrey 2008). It also provides a detailed definition of creativity in relation to the context of education. However, it is important to note that despite the top-down political discourse mentioned previously, not all national education contexts within the Europe, or even outside Europe, are in favour of creativity as a core concept of education policy. For instance, the NACCCE report did not have any French equivalent. Creativity, as regards pedagogy, has not been a priority component of the French educational system.

¹⁵ NESTA is an independent UK charity dedicated to backing innovation to help individuals and organisations make societal changes via providing investments and grants, and mobilising research, networks and skills: <http://www.nesta.org.uk/home1>

The definition of creativity diverges when it comes to identifying creativity as a generic human characteristic, or to defining what makes highly creative people special and different from others. The NACCCE's (1999) report highlights the distinction between 'democratic' and 'elite' definitions of creativity. The elite definition suggests that creative people are those that make a difference to a domain (e.g. science, social science, music or art) (Ibid). From a societal perspective, this conception is important because it focuses attention on historic creative and innovative achievements, which push back the frontiers of knowledge and understanding. Education aims to support young people who are capable of such achievements (Ibid).

However, from an educational perspective, the democratic approach seems also to be relevant. Creativity from this perspective refers to the capability for creative achievement of all people in some area of activity and to the opportunities for everyone to succeed in a democratic society. 'Teaching for creativity' and 'creative teaching' (Ibid) are essential issues when it comes to dealing with pedagogy. Jeffrey and Craft (2004) have intensively researched creativity in relation to teaching and learning within the UK educational context. They suggested that the two approaches could be considered as either learner focused or teacher focused. The NACCCE (1999) suggests that the first task in 'teaching for creativity' is to encourage young people to believe in their creative potential, to engage their sense of possibility and to give them confidence to try. Teachers and learners enter a co-participative process around activities and explorations, posing questions, identifying problems and issues together; and debating and discussing their thinking. Imagination and 'possibility thinking' (Craft 2000, 2002) play a crucial role in their engagement in problem solving (Jeffrey 2005). As Craft (2002) argues: "Possibility thinking encompasses an attitude which refuses to be stumped by circumstances, but uses imagination, with intention, to find a way around a problem"(111). 'Creative teaching' is seen as a way for teachers to make learning more interesting and effective by using imaginative approaches in the classroom (NACCCE 1999) through innovation, ownership, control and relevance (Jeffrey 2005; Woods 1995, 2002). In the same vein, Cremin et al. (2009) perceive creative teaching as a support to enhance learners' personal curiosity and desire to learn, and to take risks to become more engaged with their learning experience as well as with the world around them. This research project refers to 'creative teaching practices', largely influenced by the NACCCE's definitions of 'creative teaching' and 'teaching for creativity'.

However, it could be argued that the NACCCE's report is grounded in a neo-liberal political discourse. Such instrumentalist discourse advocates creativity within schools, and subsequently HE, as a fundamental skill to respond to the demands of the job market. Yet, such discourse serves rationalist market-oriented views of education that neglects epistemological and ethical arguments on the nature of creativity (Gibson 2005). Rowland (2006) argues that unfortunately the "skills agenda in the UK" (45) emphasises the development of skills to meet the economic needs of society, in contradiction with "the intellectual, theoretical and critical purposes of higher education" (45). This political perspective, which imposes market world-views, puts managerialism, consumerism and performativity as core principles of the higher education system. Therefore, it generates a system, which by nature limits the emergence of creativity in terms of teaching and learning experiences (MacLaren 2012).

Castoriadis (2007), a Greco-French philosopher, economist and psychoanalyst, whose work on the concept of autonomy has been influential, criticizes the capitalist economic system in opposition to the political democratic system. Such comparison allows a better understanding of the instrumentalist value attributed to creativity within HE by the neo-liberal political discourse. Capitalist society is heteronomous in the sense that it legitimises its institutions' creation and mechanisms in an extrinsic principle of rationality that invites individuals to follow extrinsic laws such as the market (ibid). Individual autonomy is not enhanced as capitalism supports conformism. From a capitalist perspective, creativity is perceived as an instrumental tool responding to the rationality of the higher education system. By contrast, Castoriadis (ibid) claims that democratic power "does not accept any limits coming from outside [...] But it is also a self-instituting power. Democracy is a regime that explicitly, continually, institutes itself "(123). The project of autonomy, at the core of any democratic society, is the result of a creative power of continual re-creation and self-transformation. Castoriadis explains that such creative power of transformation is intrinsic to the Ancient Greek society. As he argues: "Democracy is the regime of self-limitation; that is, the regime of autonomy and self-institution [...] The limits are not set in advance; hubris is always possible"(Ibid:123). The combination of knowledge of death as human self-limitation and the possibility of human "prattein" (Ibid:10) - "making-doing/creating"(Ibid:10) - embodied the foundations of Ancient Greek society. Such a combination was the source of creativity as it encouraged individual and societal self-transformation towards the project of autonomy.

Therefore, the instrumentalist value of creativity within HE (as described earlier) does not respond to Castoriadis's democratic project of autonomy. However, the intrinsic moral value attributed to creativity, as an end in itself within higher education, does not either. In order to understand creativity fully, one needs to stress the transformative value of creativity as described by Castoriadis (2007). In that respect, Kleiman (2008) has researched and described different ways of understanding creativity in the context of learning and teaching. He depicts one aspect of creativity as a "transformation-focused experience" (Ibid:214). In other words, transformation can be considered as a vector of autonomy, emancipation and democracy. Clegg (2008), who has also written about the transformative dimension, argues: "To understand creativity, we need to go beyond functionalism to consider the conflict, rupture and qualitative changes that inevitably come with creation" (220). This conception of creativity has historical antecedents. Previously, Wieman (1945) put forward that creative good is distinguished from intrinsic or instrumental good. As he argues:

Over against both kinds of created good, one intrinsic and the other instrumental, stands creative good. It has kinship with the instrumental since its value lies in what it produces. Yet it cannot be treated as an instrumental good, because it transforms the human mind and purpose so radically that what it produces is never what the initiating mind intended. It has kinship to intrinsic good because human purpose and interest must be relinquished to its control. Yet the qualities pertaining to it are rarely distinguished as being peculiarly its own (Ibid:181).

Paulo Freire's (1996) influential work on the "Pedagogy of the Oppressed", advocates the possibility of social transformation through critical pedagogy in which creative activity takes a fundamental place. He defines creative activity as the human ability to produce material goods, social institutions, ideas and concepts, and transform them in their permanent relations with the reality. "Praxis" as "the reflection and action which truly transform reality" (Ibid: 81) is the core element of this creative activity. Such activity leads towards individuals' transformation, empowerment, autonomy and emancipation from their "limit-situations" (Ibid:83).

In the context of higher education, this transformative value can lead towards resistance against, and emancipation from, an oppressive system

driven by neo-liberal, top-down political discourse. This emancipation could enhance the development of human potential. Clegg (2008) also considers critical thinking and the transformative power of creativity as tools to challenge an increasing neo-liberal globalised higher education environment. He asks: "How should academics challenge and if necessary resist the dominant ideology of neo-liberal marketisation?" (Ibid: 224). He believes that resistance is possible within such an educational context. A space in which academics could attempt to understand and reflect the world about them in relation to their disciplines has to be opened. This space would enable academics to "provide an educational service that speaks in a language that has an authentic voice, and seeks to encourage the development of human potential" (Ibid:225). My research aimed at opening such a space in which academics could begin to understand the educational world through which they journey. I suggest that through critical self-reflection on their learning and teaching practices, they could be able to transform the coercive relationships they have with their academic environment. Such transformation, as the manifestation of a creative activity, could enable them to engage in more creative teaching. In that respect, my study also explores the potential transformative power of 'creative group processes' within HE in terms of teaching practices.

1.4. Purpose of the research

1.4.1. A critical paradigm

My research is grounded in a critical paradigm heavily influenced by Freire's work. It advocates a constructivist epistemological approach where knowledge is seen as a social construction. The human mind through social interaction constructs meanings of the world, which depend on cultural, contextual and historical specificities. Nevertheless, this critical approach goes beyond pure constructivism since it sees knowledge as "a social construction deeply rooted in power relations" (McLaren 2003:72). It asks "how and why knowledge gets constructed the way it does, and how and why some constructions of reality are legitimated and celebrated by the dominant culture while others clearly are not" (Ibid). In that sense, a critical approach aims at revealing the rationales underlying "our everyday common sense understandings – our social constructions or 'subjectivities'" (Ibid). The ultimate goal is to challenge these understandings and emancipate individuals subjected by such.

Giroux (1985:xx) explains that Freire's pedagogy encourages radical

educators to understand the meaning of liberation. To do so, he argues that "they must first be aware of the form that domination takes, the nature of its location, and the problems it poses for those who experience it as both a subjective and objective force" (Ibid:xx). However, not only does Freire's discourse of power understand domination as cultural and social forms which constrain the oppressed, but also as "the way in which the oppressed internalize and thus participate in their own oppression" (Ibid:xix). Freire (1996) believes "through their continuing praxis, men and women simultaneously create history and become historical-social beings"(82). Consequently, they also create the historical-social constraints that oppress them. This critical stance perceives, then, the oppressed no longer as *objects* of oppression. By contrast, they become empowered *subjects* able to challenge oppression while engaging in a process of "conscientization" (Freire 1985:67). This process enables them to understand they have a role to play in their coercion. They realize they have internalized the "limit-situations" (Freire 1996:83) that they experience. They also become conscious they have the capacity to transform their perceptions of these oppressive situations to re-create liberating situations and reach emancipation. Freire (1996) suggests that liberating actions upon limiting situations correspond to the transformation of the perceptions humans have of these situations. In terms of the relationship of people to research:

The investigators and the people (who would normally be considered objects of that investigation) should act as co-investigators [...] The more active an attitude men and women take in regard to the exploration of their thematics, the more they deepen their critical awareness of reality and, in spelling out those thematics, take possession of that reality and can act on it (Ibid: 87).

This process will create situations in which humans will be encouraged to discover that beyond "limit- situations" (Ibid: 83) lies an "untested feasibility" (Ibid: 87).

Echoing Freire's critical approach, my own conception of the social reality is that meaning is constructed through human interactions with the world within a specific socio-historical context. In that sense, people can have different meanings of the same object. In addition, as a researcher, my construction of knowledge is undeniably related to my interaction with my research participants. The sharing of ideas and meanings with participants can lead towards the implementation of action (Kidd and Kral 2005) that can lead to change. In engaging with participants in data collection, I

believe the researcher can offer innovative perspectives, meanings and knowledge but also socio-cultural and structural understanding to motivate changes in teaching and learning practices. These changes can empower academics in their professional lives (ibid).

1.4.2. Methodological goals: explanation and emancipation

My PhD utilises a qualitative research design. My main study is based on an interdisciplinary collaborative enquiry group with academic staff. This group process took place at the National University of Ireland, Galway. From a critical perspective, this action research project proposed to investigate the understandings of creativity constraints on teaching in HE, perceived by academics. It attempts to understand why they are constructed that way, to gain a complete picture of the situation. I also understand this action research project as potentially emancipatory for academics. An emancipatory action research project requires practitioners to collaborate, think critically about their perceptions of constraints, and self-reflect on their own practices. This type of research can enable them to improve and alter their teaching approaches within existing structures; but also to change the system itself (Cohen et al. 2007).

The overall methodological research approach is grounded in “critical praxis” (Freire 1996:81) that combines practice, reflection and theory. One of the outcomes of my research praxis is a theoretical framework that embodies the conceptualisation of my research object, and has influenced the way I analysed my data and explored the meanings of my research outcomes (Ashwin 2012b). This framework helps to locate and explain the constraint mechanisms that prevent teachers from being creative. It elaborates that constraints on creative teaching practices are products of the ‘social imaginary’ of disciplinary communities. This argument is grounded in a critical stance that views individuals as creators of the constraints they experience. I argue that academics can be at the origin of the constraints they experience in relation to their creative teaching. This theoretical approach also suggests that changes and academics’ emancipation in terms of teaching practices are possible once they step outside their deeply disciplinary-internalized cultures.

The use of the specific vocabulary of oppression and liberation (in reference to Freire’s work) as regards limitations on creative teaching, may appear extreme to the reader but there are important rationales underlying

this stance. I understand academics are powerful figures within the university context and outside. Their work can have an important impact on society and academic freedom is a central value. Yet, they are also part of a university system that is dominated by managerial practices embedded in a market-driven political discourse. Although quality assurance mechanisms are at the core of this political discourse, academics perceive the system as reducing academic excellence and quality. In a qualitative study of the Australian university system, Anderson (2008) explored the phenomenon of academics' resistance to managerialism. As she argued: "Many academics condemned managerial practices as inefficient, ineffective, and as compromising academic standards of quality and excellence" (Ibid:256). They understand instrumentalist quality management discourse as compliance with minimum standards, contradicting the traditional academic discourse of excellence in scholarly endeavour. Furthermore, as described earlier, this system does not lead towards Castoriadis' 'project of autonomy' in which creativity (seen as vector of transformation and emancipation) should be a core value of teaching and learning in HE.

Hence, beyond tackling possibilities for enabling academics to develop creative pedagogy, my thesis encourages them to find possible ways to counter-balance the current dominant capitalist trends of the university system that tend to stifle potential for nurturing autonomous individuals who are able to challenge societal norms. Because of their academic freedom (which is of course becoming uncertain in the current context) and of their possible impact on society, academics are fundamental to supporting such a prospect. As Trowler (1998) claims: "Probably more than any other social group, academics are likely to reflect on their situation, form a view, and then take actions to change it if they consider it necessary" (138). However, their success lies in their own emancipation from the system they are part of. Therefore, in the context of my study, I understand academics' autonomy as a symbol of potential for change of the academic system, and possibly of the socioeconomic reality. In that respect, I assumed that interdisciplinary collaborative work could offer academics the opportunity to find solutions in themselves and with their colleagues to cope with working in the current climate of Irish HE of significant decreased funding and increased workloads.

1.4.3. Research questions

Primarily, this research aimed at exploring academics' perspectives on creativity in terms of teaching experiences, and takes into consideration both definitions, 'creative teaching' and 'teaching for creativity'. Yet, throughout my study, as previously stressed, I quickly realized that the notion of creativity remains a general term, which can include numerous ideas and concepts. Further, its meanings differ according to disciplinary contexts (Jackson et al. 2006). Based on my previous MA thesis and the evaluation of my PhD pilot study, I identified little understanding and consensus across disciplines as to how creativity is defined and as to how creativity, in terms of teaching and learning approaches, can be achieved. Academics' understanding of creativity in relation to their teaching practices remained completely individualized and influenced by their disciplinary background. Consequently, the implementation of the univocal political discourse encouraging creative practices becomes problematic. I felt then the need to understand more deeply the factors of this dichotomy between political discourse and teaching practices on the ground. My initial research question is then:

What are the factors contributing to the gap between top-down political discourses encouraging creativity in terms of teaching in higher education and teaching practices on the ground?

Beyond the challenge of understanding creativity across disciplines, shared academic perceptions around constraints on creative teaching emerged throughout the data collection. Academics mainly referred to the institutional and disciplinary constraints that are external to them. I assumed such constraints are essential components of the discrepancy between political discourse and teaching practices. My research explores teachers' conceptions of the constraints limiting their creative approaches. My second research question is then:

What conception do teachers have of the constraints on their creativity, in terms of teaching experiences within their institutional and disciplinary context?

If the definition of creativity diverges from one academic to another and from one discipline to another, what is the most appropriate method to research perceived constraints? Kleiman (2007), for example, has developed a valuable categorisation, identifying the qualitatively different

ways academics conceive creativity in the context of learning and teaching. Yet, this approach does not necessarily lead to an understanding of creativity constraints. Some researchers (Shalley and Gilson 2004; Craft 2005; Craft and Jeffrey 2008; Moran 2010) have already attempted to research such constraining factors. This literature, however, mainly develops research approaches based on *individual understandings*. This individualistic research approach does not try to understand further the underlying mechanisms and, consequently, might not give a complete description of the situation.

Consequently, it is important to raise a methodological question of the most appropriate approach, that captures a more complete and situated explanation of such teaching constraints. My last research question is then:

What is the most appropriate research methodology to explore constraints on creative teaching experiences, perceived by academics in HE?

Ashwin (2008) argues that most of the research into teaching, learning and assessment in higher education is based on a research approach in which “data are generated based solely on the accounts of academics and students, usually through interviews or questionnaires or through a mixture of the two” (155). Yet, throughout such an individualistic research approach, the researcher only relies on individual accounts of the situation, without taking into consideration that participants are part of a structure, and consequently their perceptions are influenced by their relationships with that structure. Looking at participants’ perceptions in relation to other units of analysis such as their practices, discourses and the system in which they perform, can give the researcher the possibility of developing a fuller picture of the situation.

A contextual approach, then, which brings academics together, may be more insightful in exploring fully limitations on their creative teaching approaches. An interdisciplinary collaborative enquiry group could support such an exploration. It gives the researcher the possibility of looking at different levels of analysis at the same time (such as academics’ perceptions, discourse and practices). Ultimately, it also could encourage participants, by working together, to generate new perceptions and discourses for teaching, and change their practices.

1.4.4. The relevance of the Irish context as a case study

State intervention within the Irish HE system is more recent than in other national systems such as in the UK. A tradition of institutional autonomy has been historically important. This involved a diverse and, some would argue, incoherent landscape consisting of seven universities (and notably an historical National University of Ireland federal system of four institutions (Dublin, Maynooth, Cork, and Galway)) and other providers such as the Institutes of Technology and teaching colleges. However, the political discourse of the knowledge economy has become an incentive for a growing state intervention since the so-called 'Celtic Tiger' period. Also, within a context of economic crisis, the governance of the Irish HE system seems to take a new turn with the National Strategy for Higher Education announced in January 2011. The strategy was formulated in a report produced by a group chaired by Dr. Colin Hunt¹⁶, commissioned by the Irish Department of Education and Skills (2011).

This strategy seeks to reshape the future of the Irish higher education system, its direction, governance, and scope; towards a more co-ordinated and coherent system of interconnecting, complementary institutions, each with a clearly-defined mission. It aims to support the Irish HE system to meet the many social, economic and cultural challenges that face Irish society, and meet its key roles of teaching and learning, research, scholarship, and engagement with wider society. The national strategy encourages investing in innovative teaching and learning approaches in higher education to enhance critical thinking, adaptability and the creative skills of students. In addition, the strategy group report stresses the particularity of Ireland as a place for creative richness that could be used as an asset in the transformation of the HE landscape:

As an island of scholarship, scientific discovery, creative arts and innovation, Ireland attracts independent thinkers and entrepreneurs from around the globe. The Irish language, culture and the creative arts are primary sources of our distinctiveness and we should deepen our understanding of these and capitalise on their inherent cultural value and on the cultural and literary qualities that make us distinctive and interesting internationally (Irish Department of

¹⁶ The new national strategy for higher education in Ireland was announced on January 2011. A Strategy group under the Chairmanship of Dr Colin Hunt - Managing Director of Macquarie Capital (Europe) Advisers - was commissioned to produce a report that formulates a comprehensive strategic policy framework that will ensure that the objectives of the strategy are achieved in the coming decades.

The reform process is still ongoing.

The UK's Imaginative Curriculum project¹⁷ (supported in large part by the Higher Education Academy) was initiated in 2002. It organised a number of events, and produced interesting outputs as regards the problems and potential of creativity within HE and this could be used to inform Irish policy or curricular development. One of the contributing organisations to this network has been PALATINE¹⁸ (Performing Arts Learning and Teaching Innovation Network) as the Higher Education Academy Subject Centre for Dance, Drama and Music (2000-2011). Focusing on performing arts, this network also aimed at inspiring 'traditional' academic practitioners (from other disciplines) willing to use creativity in their teaching approaches.

Occasional events on creativity in higher education have been organized in Ireland such as the workshop event funded by AISHE (All-Ireland Society for Higher Education) entitled '*Mapping creativity in higher education in Ireland*' (2010)¹⁹. The ultimate aim of this initiative was to develop a special interest group in creativity in HE in Ireland. The Centre for Excellence in Learning and Teaching at NUI Galway also organised its annual Galway Symposium (2010) on the theme of creativity in HE. The event entitled '*Creative Thinking: Re-imagining the University*'²⁰ aimed at gathering Irish and international academic colleagues with an interest in creativity.

Therefore, my study was undertaken in the Irish higher education context where only a few studies in relation to creativity within traditional university institutions have been undertaken (Coate and Boulos 2012; Bradley 2007, 2012; Mcvey 2008; Donnelly 2004). Nevertheless, it is important to notice that the sample used in my study does not aim at representing the whole HE system, nor academics world-wide, or across Ireland. It addresses issues around creativity and teaching that the specific academics involved in my study experienced. These academics belong to one particular

¹⁷ The Imaginative Curriculum project, organised by Professor Norman Jackson (Director of the Centre for Excellence in Professional Training and Education at the University of Surrey) provided, for a number of years, a coordinated focus on aspects of creativity in higher education. The book, Jackson N; Olivier M; Shaw M and Wisdom J (2006) *Developing Creativity in Higher Education, An imaginative curriculum*, London and New York: Routledge, synthesises the products of this project.

¹⁸ PALATINE's main role was to provide the communities of practice in dance, drama and music higher education across the UK with high quality support, information, expertise, and resources around the issues of creative and innovative learning, teaching and assessment in the performing arts: <http://www.palatine.ac.uk/>

¹⁹ The All Ireland Society for Higher Education (AISHE) is an independent, membership-based professional society dedicated to the promotion of good and innovative practice in learning and teaching in Ireland. Its website is available from: <http://www.aishe.org/>

²⁰ The Annual Galway symposium was held in the 9th and 10th of June 2010: <http://www.nuigalway.ie/celt/conference/conference2010.html>

A corresponding special issue of the *London Review of Education*, on creativity has been co-edited by myself and Dr.Kelly Coate as an outcome of the Symposium: Coate, K. and A. Boulos (2012). "Creativity in education: Challenging the assumptions." *London Review of Education* 10(2): 129-132

academic institution, and further, to specific disciplines. It is important to acknowledge that other academics in Ireland, working within different educational contexts, more specifically creative and performing arts-based disciplines for example, would not necessarily experience the same issues in relation to creativity and teaching. For instance, creativity is at the core of the teaching and learning experiences of the Burren College of Art²¹, a partner institution of NUI Galway.

The National University of Ireland, Galway, with educational emphasis on Irish language and culture, is however an opportune location for inspiring and creative initiatives²². My research project was very much welcomed within this type of environment. The support of the Centre for Excellence in Learning and Teaching (CELT) has been essential in the accomplishment of this doctorate. The centre plays an important role within the university as it aims to foster a culture of excellence in teaching and learning; and to promote methods that encourage active learner engagement and critical thinking. Yet, at first sight, my PhD was a challenge. Not only was establishing the research process itself challenging, but I also had to face cultural and language barriers. As a French PhD student, I undertook my research in an unfamiliar educational system and used a working language different from my own mother tongue. Nevertheless, the welcoming environment of NUI Galway and the crucial support of CELT contributed significantly to the achievement of my project.

1.5. Discoveries throughout doctoral practice

As mentioned previously, my experience of the French higher education system influenced my primary wish to research creativity in higher education. I notably had a strong interest in the reproduction of elites and access to higher education. I wanted to explore to what extent creativity could lead towards greater equality of opportunity in terms of access and experience within the European higher education scene. I intended to conduct a comparative study between different countries in Europe: UK, Ireland, France, Iceland and the Netherlands. Nevertheless, I was uncertain about how I would undertake this comparative study.

As I began my PhD, I realized that I needed to narrow down my research

²¹ The Burren College of Art is an internationally recognized Irish non-profit independent art college specialised in undergraduate and graduate Fine Art education, located in Ballyvaughan, County Clare, Ireland. These programmes are accredited by NUI Galway. The college also offers various workshops to develop art work and explore the creative process, summer schools and artist residencies. Its website is available from: <http://www.burrencollege.ie/>

²² This argument echoes Finbarr Bradley's argument developed in his keynote speech: 'Culture as a Critical Ingredient in Innovation', 2010 Galway Symposium, NUI Galway

question, which was too ambitious and unrealistic. Throughout my pilot study, I discovered a myriad of possibilities in terms of research questions that I had not previously considered. This led me to the key questions elucidated here. There is also a difference between how I imagined the PhD process and what I actually experienced. For instance, I thought my PhD experience would be only filled with excitement and success. However, the research process was not always easy, and some discoveries I made emerged from challenges I had to face. From my doctoral practice, I discovered, then, that planning, in terms of research within social sciences, is crucial. Yet, it is impossible to predict at the outset how the project will unfold.

1.6. The research process as a journey

Brew (2001) has identified four different conceptualisations of the research process. The first is the 'domino variation' in which "there is an external product orientation because, in describing separate things, research is interpreted as the activity of combining them to solve practical problems, answer questions or illuminate wider areas of understanding" (276). The second is the 'trading variation' in which "what is in the foreground are the products of research: publications, grants, and social networks" (277). The third is the 'layer variation' in which "data, previous theories or ideas are initially in the foreground. There is an internal orientation, where the researcher is bringing to light the ideas, explanations and truths lying in the background by illuminating or uncovering the underlying layer. The researcher is absent from the focus of awareness" (278). Finally, in the journey variation:

The activities in which the researcher engages, whether or not they appear to have a direct bearing, are viewed as relevant to research because they inform the life issues which underpin the research questions. Encounters with the data are viewed holistically as transforming theoretical and experiential understandings of the issues which are the focus of interest. The researcher grows or is transformed by this. The content or topic of the investigation is less important than the issues or underlying questions posed, or the ways in which they dovetail with the researcher's life or career. The researcher is central to the focus of awareness (279).

In order to grasp the complexity of research on creativity in HE, my PhD, as

mentioned earlier, was grounded in an action research project. In that respect, although my research process related to some aspects of all four variations described above, the 'journey' dimension was a significant one. It required me to engage in a 'creative enquiry' dealing "with the unknown, the messy, the complicated, the complex, and attempting to understand and make sense out of it" (Montuori 2010: 121).

Trowler (2013) argues that HE researchers could learn from Art and Design researchers because of their greater concern in engaging with the audience, notably by answering the question "How can I present this research in ways which will evoke a response in the audience?" (62). Traditional academic writing is not necessarily appropriate to action research reporting since the writing emerges "from a different set of relationships (collaborative and action-oriented), rather than authoritative and action-oriented" (Zuber-Skerritt 1996:25). In this regard, the format of 'action research project' writing should also be different. It should notably take into account the narrative format as an efficient way to express the dialectic of practice and reflection that is central to an action research approach (Ibid).

In the same vein, an effort was made in this thesis to present the research report in a way that would reflect the research 'journey' I experienced. The ultimate aim was to make this experience understandable to the audience. The research report takes a quite narrative stance, and retraces the complexity of the research path taken. I particularly stressed on challenges, obstacles, successes, and lessons drawn throughout the research process, that were sources of progress, rather than reporting a linear research activity than only focuses on the outcomes and findings of the research. Chapter 3, for instance, will retrace the exploratory journey taken in my search for a research object and an appropriate methodological approach.

Finally, it is important to consider the complex nature of my thesis writing - reflecting the complexity of the research journey - because the writing process in itself, as a source of learning and exploration, was part of this journey. As Zuber-Skerritt (1996) explains:

The process of writing involves clarifying and exploring ideas and interpretations. It begins when we start to collect data and to jot down notes on the possible significance of certain incidents. The process of exploration and clarification continues when we first begin to review that whole collection of notes and data; prior to writing. Ideas spring to

mind-questions, links, interpretations- and these develop and ramify as we write the report itself. So writing up a report is an act of learning and, in this sense, we write for ourselves so that, when we read what we have written, we find out what, in the end, we have learned (26-27).

1.7. The structure of the thesis

Chapter 1 has presented my personal path towards my doctoral research, the selection of my research topic, its importance, and my research paradigm and purpose.

Chapter 2 offers a comprehensive understanding of the concept of creativity and its different levels of analysis from an individualist research approach to a contextual one, and further to a systemic one.

Chapter 3 retraces my methodological path, and the rationale towards my main study based on a cross-disciplinary collaborative enquiry group (CG) with academics from the National University of Ireland, Galway.

Chapter 4 discusses the methodology of the CG applied; and reflects on the potential and the challenges of the CG that contributed to shaping my conceptualisation of creativity constraints on teaching in HE (as perceived by academics).

Chapter 5 develops the theoretical framework I developed as an outcome of my research practice, and which embodies my conceptualisation of such constraints. It aims at explaining the mechanisms stifling academics' creative teaching practices but also challenging academics' perceptions of these constraints.

Chapter 6, 7, 8, influenced by the theoretical framework I developed; discuss my research findings on academics' perceptions of creativity constraints, and the CG scope for creative collaboration.

Chapter 9 gives a summation of my findings; revisits my initial research questions; and exposes my research contributions to the field of research on creativity in HE, but also the implications for academic institutions and for education policy.

Chapter 2: Literature review

Towards a systemic approach to creativity

2.1. Introduction

Besides an historical popular literature on creative thinking (e.g: DeBono 1985; Higgins 1994; Gelb 2004) and organisational innovation (e.g: VanGundy 1992; Mattimore 1994; Torr 2008), a growing scholarly literature on creativity in education has emerged over these last twenty years. In this chapter, the emphasis is placed on higher education. Hennessey and Amabile (2010) have developed a model of the various levels of analysis of creativity present in the literature. Following this model, I also examine the concept of creativity and the different research approaches to creativity from an individualistic to a contextual and, further, a systemic perspective. In the context of higher education, the individualistic approach to creativity considers a myriad of individual academics' understandings of creativity. The contextual approach stresses the possible construction of a shared understanding of creativity through, for instance, group collaboration. In addition, the systemic approach takes into consideration the formation of academics' understanding of creativity through their interaction with the structural environment in which they are professionally situated. Through this approach, an understanding of why and how academics' meanings of creative practices and of their limitations are constructed within HE can emerge. Such understanding may be considered to facilitate possible transformation of these meanings and ultimately changes in practices. In that sense, this systemic approach is rooted in a critical paradigm.

Hennessey and Amabile's literature review (2010) is structured around an analysis of creativity constituted by various levels of concentric circles (see figure of concentric-ring analysis of creativity in Hennessey and Amabile 2010:571). The first level (the smallest circle) represents the most microscopic level: the neurological activity of the brain in relation to creativity. The last level (the biggest circle) refers to the most macroscopic level of analysis: a 'systems approach' to creativity. As they explain:

We begin with an examination of research directed at the most microscopic level—neurological activity in the brain. We then work out through ever-broadening lenses of focus and toward a review of the literature devoted to the impact of classroom or workplace environments as well as entire cultures on creative behaviour. Our review ends with an overview of some of the more comprehensive theories of creativity and a call for researchers and theorists to work toward the development of entire systems perspectives (Ibid: 572).

This fascinating review demonstrates that an ever-expanding theoretical and methodological research on creativity exists. However, this expansion remains disciplinary-focused and despite a growing body of contributions, creativity remains a difficult notion to understand and explain. The authors propose a more interdisciplinary and integrative research “based on a systems view of creativity that recognizes a variety of interrelated forces operating at multiple levels” (Ibid: 569). Their ‘systems approach’ refers to the notion of ‘systems thinking’ which concerns an understanding of a system by examining the linkages and interactions between the constituent elements -people, structures and all the processes and interaction between these. This chapter will demonstrate that my own research approach fits in this ‘systems approach’ as I look at the interaction between academics, their academic identities and their disciplinary environments in order to understand perceived constraints on approaches to teaching.

Creativity as a complex concept involves therefore numerous levels of analysis. Many approaches have been taken in order to conceptualize creativity and numerous debates remain on its definition and measurement. A number of experts (Wehner et al.1991; Simonton 2012) stress that the existing research on creativity is extensive but can be confusing.

Yet, a general consensus exists on the criteria of novelty and appropriateness (value) defining creativity (Hennessey and Amabile 2010). Sternberg and Lubart (1999) have researched and written together about the concept of creativity. They state that creativity is a source of novel and appropriate work which is supported by many elements such as intellectual abilities, knowledge, specific styles of thinking, personality and motivation. Runco and Charles (1993) investigated the contributions of originality and appropriateness to judgments of creativity. They argue that the literature recognizes that the production of something original is a fundamental element when it comes to looking at creativity. Further, Sharp (2001) insists

on the fact that originality represents the ability to produce ideas and work that are novel and unique in the sense they cannot be reproduced. According to most theorists, imagination, the production of ideas and problem solving abilities to produce an outcome of value and worth are what the creative process is made of (Ibid). Cachia et al. (2009) undertook a literature review on creativity and innovation in education in the context of the European Year of Creativity and Innovation. They offer an attempted definition of creativity that systematizes the main characteristics found within the literature:

Creative experience can be seen as opposite to reproductive experience (Taylor 1988) since the creative process is involved in the generation of new ideas (Esquivel 1995). Moreover, creativity is seen as the ability to see possibilities that others haven't noticed (Craft 2005) and the possibility to make connections that are not common. It requires cognitive and creative thinking skills (Runco 1990), imagination (Craft, 2005), and also evaluation (Runco 1990). Creativity also demands a set of personality traits, which can be enhanced or modified by the environment. For this reason, the environment needs to nurture creativity and to boost intrinsic motivation. Besides, creativity is not limited to the arts, as it can be manifested in all ambits of human knowledge. Moreover, it should not become an instrumental term to be filled with any kind of content and used in every kind of context (Gibson 2005) (Ibid:14).

Figure 1 summarises their findings, where the outer circle represents what creativity requires and the inner shape what creativity is:

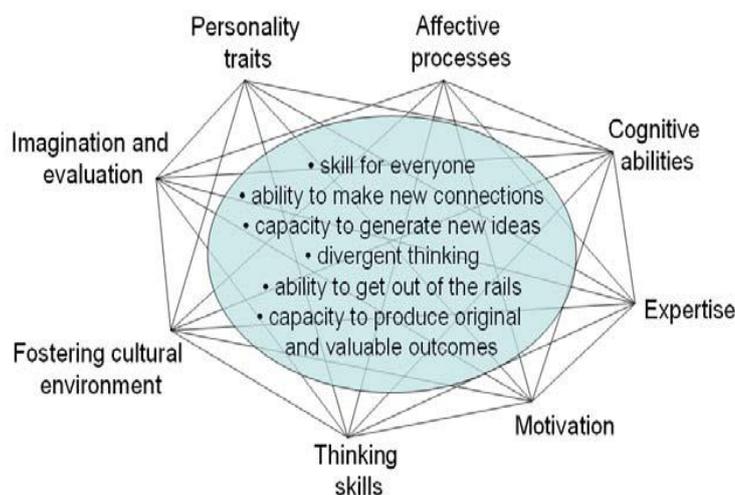


Figure 1: Cachia et al. (2009) summary figure of creativity definitions²³

²³ The reproduction of this figure is authorised, provided the source is acknowledged (see Cachia et al. 2009:2)

To better comprehend creativity, the American psychologist Kaufman (2009) has classified modern theories of creativity under the “four P’s” approach: product, process, person and place, which echoes the four approaches to creativity developed by Mooney in 1963. The first P refers to the creative product, which is a tangible item such as a short story, a painting, a design of a building or a science experiment. The second P is the creative process and the third P, the creative person. Finally the fourth P refers to the creative place (environment) related to the idea that there are environments that can be more, or less, conducive to creativity.

Yet, despite psychology research such as Kaufman’s, the problem of definition remains recurrent when it comes to looking at research on creativity in HE in terms of learning and teaching approaches. The Imaginative Curriculum work highlights academics’ and students’ diverse definitions of creativity in this context. Here, creativity appears to be a meaningless, powerless and confusing notion. It is associated with “being imaginative”, “being original”, “exploring for the purpose of discovery-experimentation and taking risks”, “using and combining thinking skills”, “communication” (Jackson et al. 2006), but it remains a general term which can include numerous ideas and concepts. However, Jackson et al. (2006) argue that creativity can be defined only when it is related to context, such as disciplinary contexts since the forms of thinking, doing and being in the discipline shape academic conceptions of creativity.

Andiliou and Murphy (2010) have recently attempted to synthesize the results of studies that explored teachers’ beliefs about creativity. This synthesis is based on a three-dimensional conceptual framework: (a) beliefs about the nature of creativity, (b) beliefs about the profiles and characteristics of creative individuals and, (c) beliefs about a creativity fostering classroom environment. There is still a complexity and richness in the way academics perceive creativity in terms of learning and teaching experiences. Yet, Kleiman (2008) states: “Issues of definition that so concern creativity researchers are of little concern to those who are engaged with and interested in creativity in learning and teaching” (9). The underlying rationale is that academics are perceived by researchers as deliverers of a particular “creativity agenda” that is vague and without consistency, whereas they should be perceived and involved as agents in their own and their students’ creativity (Ibid). Creativity consequently makes sense in relation to teaching practice since by fostering creativity in students, academics learn about their own teaching and become creative

teachers (Gibson 2010).

In chapter 1 we saw two concepts have been developed in relation to pedagogy, 'creative teaching' and 'teaching for creativity' (National Advisory Committee on Creative and Cultural Education 1999). Furthermore, a recent concept also emerged through the work of Craft et al.(2008) which relates to teaching 'for wise creativity'. Creativity here is seen as the way towards a 'wise' solution of a problem. The authors promote education as a tool to expand students' creative abilities and sense of responsibility within their school community and in the wider world.

However, beyond the lack of agreement on the definition of creativity, and more precisely in relation to education, a consensus exists on the idea that creativity in research has largely been investigated from individualistic perspectives and less from contextual and social perspectives (Sawyer 2006; Hennessey and Amabile 2010).

2.2. The individualistic approach

The characteristic of the individualistic approach is that creativity research focuses on individual differences rather than on social influences.

2.2.1. Psychological level of analysis

Contemporary research interest in creativity originated in the 1950's with a focus on the individual aspect of creativity from a psychological perspective. The psychological approach seeks to explore the question of what distinguishes highly creative people from others (Hennessey and Amabile 2010). Some researchers define a creative person with distinct characteristics such as strong motivation, intellectual curiosity, deep commitment, and independence in thought and action, or strong-sense of self (Brolin 1992). The study of personality traits of creative and eminent people became popular in the research on creativity (Cachia et al 2009). In this regard, based on the big-five-personality traits model (Digman 1989; Feist 1998), research has suggested that, for example, artists tend to report elevated neuroticism, negative emotional states, and higher levels of introversion, whereas scientists generally show higher level of conscientiousness. Many studies on creativity explore creativity as personal traits of eminent individuals in relation to genius and intelligence (Alberts and Runco 1999) or to knowledge (Weisberg 1999). In addition, the systematic relationship between creativity and mental illness is very present

in the literature, such as in Abraham and Windmann (2008) who suggest that highly creative individuals are predisposed to signs of mental illness. Yet, other researchers contradict this argument such as Chavez-Eakle et al (2006) who stated that mental illness is related to personality rather than creativity as very creative persons tend to score low on psychopathology. This assumption about the relationship between creativity and mental illness is rooted in the myth present in the literature, which perceives creativity as an unconscious process (Poincare 1913; Freud, 1964). Robertson (1991) insisted on the direct relationship between the creative expression and the unconscious of every individual. The romantic belief that artists, as creative people, were different from other people since their genius was a form of “divine madness” (Sawyer 2006:16), turned out to be one of the biggest myths of creativity (Schlesinger 2009). Researchers have discovered that creativity is mostly conscious and results from hard work (Sawyer 2006). For instance, Nobel Laureates publish twice as much, on average, as other scientists (Simonton 1988). As Sawyer (2006) explains, creativity researchers argue now that the most creative people are also the most productive ones.

In addition, arising from the personality difference research approach, a major distinction has been established in the literature on creativity between big C creativity and small c creativity. The American psychologist Gardner (1993) made the distinction between Big C Creativity (or High creativity) arguing that such creativity is a quality and attribute of eminent people whereas small c creativity (or the ordinary or democratic creativity) is an ability that any person can possess. This distinction between Big C and small c creativity has undeniably influenced the literature on education. The NACCCE’s (1999) Report, for example, made reference to the “democratic” as opposed to the “elite” definition of creativity in terms of education. The elite definition points out creative people are those persons who make a difference to a domain (e.g. science, social science, music or art) (Gardner 2008). This conception is important because “it focuses attention on creative achievements which are of historic originality, which push back the frontiers of human knowledge and understanding. Education must certainly nurture young people who are capable of such achievements” (NACCCE 1999). Nevertheless, when it comes to dealing with education in terms of learning and teaching approaches, the democratic approach seems to be more relevant (Craft 2008)²⁴. In addition

²⁴ Interview with Anna Craft for Boulos, A (2008) *How is the UK Education Policy discourse on creativity received within Higher Education?*, MA thesis, University of Exeter/Sciences Po Rennes

to the study of “Big C” (eminent) creativity and “little c” (everyday) creativity, Beghetto and Kaufman (2007) argued that it is also essential to explore what might be termed “mini c” creativity, or the creative processes involved in the construction of personal knowledge and understanding (Hennessey and Amabile 2010).

From the personality traits approach, a psychometric focus on creativity emerged suggesting that creativity is a quality which can be measured. This approach distances itself definitively from the body of literature arguing that creativity is the product of ‘genius’, as it enunciates clearly that creativity can be found in everyone (Ibid). Two of the most famous personality tests related to creativity are the *Torrance Tests of Creative Thinking* (Torrance 1974) and *Guilford’s structure of intellect model of personality* (Guilford 1967). Numerous other tests based on intelligence, such as IQ testing, emerged in order to facilitate a better comprehension of creativity since, for psychologists, creativity was strongly correlated with intelligence (Sawyer 2006). Hence, “they tended to study intelligence rather than study creativity directly” (Ibid:43).

Many educational theories seem to be rooted in this individualistic approach. One of them is Gardner’s (1983) “multiple intelligences”, which proposes an individual-centred education. His theory deals with the individual learning process according to specific types of intelligence. However, approaches based on testing have been criticized by other scholars (Almeida et al. 2008) as they were not able to give more details on what creativity is. In addition, most of these personality tests were based on the idea that creativity required only *divergent thinking* as the ability to generate many different possibilities for solving a problem (McCrae 1987). By opposition, intelligence required *convergent thinking* supported by one or a few correct or conventional answers (Guilford 1967). In addition, Sawyer (2006) explains early research located divergent thinking in the right side of the brain and the convergent thinking in the left-brain. Yet, from the 1980s onwards, psychologists have known that creativity requires a complex combination of both divergent and convergent thinking. As far as the regions in the brain which are involved in these various processes, the reality is more complex than the naïve two-hemispheres cliché and in fact involves not just different regions distributed around the brain but also the connections between them.

2.2.2. Scientific and neurobiological level of analysis

Beyond the personality and intelligence approaches, a growing body of neuroscience literature has emerged at a lower 'micro' level. It aims to explain further "the neurological basis of creative behaviour supported by the advancement of technology, particularly functional magnetic resonance imaging (fMRI)" (Hennessey and Amabile 2010: 573). As Hennessey and Amabile (2010) point out, numerous research studies of the relationship between creativity and brain damage have been made, based on the study of individuals displaying aphasia or other brain abnormalities and injuries. A fascinating literature has emerged from this research, which uncovers the relationship between creativity, emotion, affect and cognition (Damasio 1999, 1995; Immordino-Yang and Damasio 2007; Valera et al.1991). This new research has strongly influenced education research on learning and teaching processes. In recent public discussion, Matthew Taylor (2008), for example, has argued that neurosciences research demonstrates that emotions are intrinsic to the learning process. Yet, educational systems often minimise the emotional aspect of learning. Taylor believes that neuroscience research can then contribute to debates on the future of education. Education is not only about cognitive process and knowledge acquisition: it is about nurturing creativity in individuals in order to help them to face the challenges of their lives in social terms. A greater place for emotions within learning and teaching environments should be considered as a valuable means to reach that goal. In that sense, responding to Hennessey and Amabile's encouragement for more interdisciplinary research on creativity, Taylor (2008) states that "the study of emotions, creativity, and culture is ripe for interdisciplinary collaborations among neuroscientists, psychologists and educators"²⁵.

The literature on the role of emotions within education proposes a greater focus on emotions and affect as part of the curriculum in order to facilitate students' learning process. Students are seen as individuals with emotions, feelings, sentiments, affects in and between them that should be taken into consideration by the educational system (VanderVoort 2006; Robson et al. 2008). The underlying rationale of a greater focus on emotions within university is that "emotions are the driver of what motivates us" (Byron 2007). It involves more engagement from the students in their learning experiences, which enhances their achievement (VanderVoort 2006). Many researchers (Amabile 1996; Collins and Amabile 1999; Deci and Ryan 1985; Csikszentmihalyi 1996; Nickerson 1999; Sternberg and Lubart 1999)

²⁵Taylor M (2008) *Neuroscience and learning process*, Lecture at RSA events the science of lifelong learning, 20th Jan 2008, available online from: <http://www.thersa.org/events/audio-and-past-events/the-science-of-lifelong-learning>

note strong correlations between intrinsic motivation and creativity processes. According to Csikszentmihalyi, a creative experience comes from an intrinsic motivation that fully engages the person, who is absorbed by the object of his or her attention (Csikszentmihalyi 1996). The work of Prabhu et al. (2008) confirms that intrinsic motivation is also an enduring personality trait with a positive relation to creativity. Similarly, within the higher education context, intrinsic motivation is seen as a fundamental element to enhance creative process in terms of learning and teaching experiences (Collins and Amabile 1999).

Studies on creativity have emerged in other scientific domains. Computational approaches helped in understanding the cognitive components of creativity, studying concepts such as “analogy, metaphor, concepts and conceptual spaces, sequential stages and transformative rules” (Sawyer 2006:104). Numerous artificial intelligence computer programs such as the “Cope's EMI (Experiments in Music Intelligence)” (Ibid:97) or the “James's McLurkin Robotic Orchestra (2002)” (Ibid:103) have been created as a result of such research. Consequently, a growing collaboration has emerged between artists and technologists as artists started to use those computational approaches to support their artwork (Ibid).

In addition, research on the relation between computer programmes, training and creativity has emerged. For example, Benedek et al. (2006) explored whether a computer-based, divergent thinking training approach could effectively enhance fluency and originality of (Austrian) adults through the provision of repeated practice. The study showed that the computer-based training entailed significant gains in aspects of fluency but no effects on originality of ideas. The false belief about creativity as requiring only divergent thinking is here again confirmed. Yet, beyond this computational training approach, a general consensus acknowledges that training helps to enhance creativity in students (Feldhusen and Goh 1995). Different training mechanisms can be used such as the development of appropriate thinking skills, of motivation to be creative or perception of oneself as capable of being creative (Clapham 1997).

Whilst this extensive body of research is varied it remains based on an individualist and subject-type approach. Consequently, a research gap exists in terms of a contextual analysis approach to creativity (Sawyer

2006; Hennessey and Amabile 2010). There is only a small body of research literature dealing with the effects of specific social and environmental influences on creativity (Amabile 1996). It is towards this more contextual-based perspective I will turn now.

2.3. To a contextual approach

A contextual approach seems crucial to a fuller understanding of creativity. Sawyer (2006), who has extensively researched creativity within collaborative settings, argues:

Individual-level explanations are the most important component of the explanation of creativity. But, individuals always create in contexts, and a better understanding of those contexts is essential to a complete explanation of creativity (Sawyer 2006: 113); each individual is a member of many overlapping social groups. Each social group has its own network, with links among different members of the group. Each social group has its own structure, an overall organization that determines where each person fits in, what role each person will play in the group (114).

Along these lines, a growing literature on organizational creativity has emerged. This literature stresses the impact of the social environment on the creativity of individuals, groups and organizations (Hennessey and Amabile 2010). Scholars such as Isaken and Ekwall (2010) have found, for example, that relatively higher levels of *debate* but lower levels of *conflict* are more conducive to organizational creativity and innovation, creating a climate where people can share and build upon each other's ideas and suggestions.

2.3.1. Groups and classrooms

Research on groups within the workplace (such as George, 2007) suggests that workers are expected to become creative when they collaborate in project teams. As Hennessey and Amabile explain (2010), the rationale for such a shift in perspective is related to the influence of the psychological research on workplace. Numerous studies put forward the relationship between time constraints and creativity (Amabile et al.2002; Madjar and Oldham 2006) or the impact of goal setting on team projects and creativity (West et al.2005) within the workplace.

The study of creativity in terms of group interaction, motivation and

disposition is an area of recent research growth. As Hennessey and Amabile (2010) state: "Much remains unknown about the creative process within groups, but significant progress has been made" (579). For example, Osborn's work (1953) on brainstorming as a creative group technique was an attempt to understand the creativity process of groups (now heavily critiqued, however). In addition, Paulus and Yang (2000) tried to understand the factors generating creative ideas within groups. Sawyer also provides a fascinating explanation of how creativity operates in collaborative settings, notably in jazz bands and improvisational theatre groups (Sawyer 2004, 2007; Sawyer and DeZutter 2009). Finally, Miell and Littleton (2004) present contemporary perspectives on collaborative creative processes across a whole range of domains such as music composition, business, school-based creative activities, fashion design and web-based academic collaborations.

Thus, it is not surprising that the education system and classrooms have become increasingly the objects of research on creativity. As Hennessey and Amabile (2010) state: "In addition to the workplace, the other obvious setting for the real-world application of the social psychology of creativity literature is the classroom" (585). Moreover, Craft (2001) suggests that the economic imperative to foster creativity in business has also increased the value given to creativity in the context of education. The classroom becomes the place where "the promotion of collaborative practices and 'team work' prepares pupils and students for work in organisations that need to be creative and single-minded if they are to be effective in their highly competitive markets" (Ibid:12).

Not only are the drivers of research on creativity within education economic but also sociocultural. Creativity takes a crucial role within educational settings in terms of positive individual and societal outcomes (NACCCE 1999). A system of education, prepared to meet the sociocultural and economic needs of society in the next century, has to nurture creativity in the young generation (UNESCO 1998). Classrooms are the place where students can be equipped with new creative skills, knowledge and ideals. A better understanding of creativity can then be developed through a deeper comprehension of how "teaching techniques, teacher behaviour, and social relationships in schools affect the motivation and creativity of students" (Hennessey and Amabile 2010).

Sawyer (2004) has emphasised the role of improvisation and the

emergence of creativity within collaborative group classrooms. In addition, other literature has explored pedagogic strategies and creativity (Woods 1990; Woods and Jeffrey 1996). For example, Cremin et al. (2006) posit a conceptualization of the 'possibility thinking' pedagogy (as mentioned previously) within classroom environments. Creativity is then seen as central to educational practices (Cachia et al. 2009) and classrooms as appropriate places to nurture creative thinking skills in students (De Bono 1970; Beghetto 2007). In the same vein, Hämäläinen and Vähäsantanen (2011) examined the issue of orchestrating collaborative learning process and creativity in educational settings from a teacher's perspective.

In contrast, numerous authors comment on the relatively limited value given to creativity within the classroom context (Robinson 2001; Christensen et al. 2008). The literature recognises the difficulty in assessing creative learning. The overwhelming existence of formal, summative assessments within education settings, mainly in the form of tests, does not value creativity (Wyse and Jones 2003). Moreover, Craft and Jeffrey (2008) highlight the structural limitations on creative teaching approaches that teachers experience. This refers to the "impossible tension for teachers who are encouraged to innovate, take risks and foster creativity and on the other hand are subject to heavy duty accountability, played out through the publication of school league tables based on national assessment data, alongside inspections and performance-related career progression" (Ibid:579). In the same vein, Craft (2005) states that the implementation of creativity in education is a challenge as creativity needs time, 'flow', interaction, suspension of judgement, and risk-taking; elements in contradiction to traditional school institutional principles such as accountability and performativity.

2.3.2. Towards a systemic approach to creativity

From the 1980's, two major authors initiated a sociocultural research approach to creativity. Amabile (1983) argued not only is creativity an individual characteristic but also a social one. In the same vein, Csikszentmihalyi argued that creativity is the property of societies, cultures and historical periods (Csikszentmihalyi 1988, 1996). As I mentioned previously, he developed a "socio-cultural model of creativity" (Sawyer 2006:123) based on three components: the person, the domain and the field. Creativity occurs when a person has a new idea, but this idea has to be recognized as appropriate by the field. In other words, the field

corresponds to all individuals who act as gatekeepers to a particular domain. They decide whether a new idea should be included in the domain. This notion of domain refers to the set of symbolic rules, procedures and knowledge shared by a particular society or by humanity as a whole. According to Amabile (1996), creativity results in the combination of three elements: expertise as technical and intellectual knowledge, creative thinking skills as imaginative and flexible approaches to a problem, and motivation. The last element, strongly context dependent, refers to the intrinsic motivation, which drives individual's deep involvement in a work.

Florida and Tinagli's (2004) argue that the wider politico-cultural context affects creative performances and attitudes. Other researchers (Csikszentmihalyi 1996; Lubart 1999; Sawyer 2006; Amabile 1996; Hennessey and Amabile 2010) also stress that creativity is context dependent and perceived differently according to different cultures. From a western perspective, for example, creativity is associated with a break in tradition. By contrast, some eastern cultures associate creativity with a reinterpretation of traditional ideas (Lubart 1999). Further, some cultures do not have a concept of creativity (Sawyer 2006). Such work reiterates the important role of anthropological research. Not only is such necessary to explain creativity, but even more necessary is the cross-cultural research on creativity, which can teach us a great deal both about creativity and about different cultures (Baer 2003). In the educational context, Runco and Johnson (2002) explored parents' and teachers' perceptions of children's creativity in the United States and India. Throughout this study, they also demonstrated that cultural traditions are a level of analysis as fundamental as the individual level.

A systemic research approach is then necessary to understand creativity fully. This approach embodies the need to include all levels of analysis, from the person, who creates, to the cultural context in which this person evolves (Sawyer 2006; Amabile 1996). Only a few researchers have been trying to integrate simultaneously such different levels of analysis when it comes to looking at creativity. An early example is Mooney (1963) who developed a fourfold set of foci to look at creativity around four levels of analysis: personality (person who creates), cognition (the creative process), environmental factors and the outcome.

In education research, multi-strategy approaches to creativity have been explored at the school level. For example, Shallcross (1981) examined a

range of pedagogical strategies to foster creativity in classrooms including different factors such as adequate space, time and mental climate. Edwards and Springate (1995) took into consideration time, space, materials, climate and teachers' occasion to provide some creative stimulus, enabling the modification of classrooms, to support children's creativity. However, most of the studies are focused on the artistic side of creativity in relation to arts-based disciplines. In addition, they mainly investigate schools rather than higher education institutions. Systemic and multi-strategy research approaches to creativity within traditional higher education disciplines are almost non-existent.

2.4. The approach of the current thesis

My study aims to address cross-disciplinary and systemic research approaches to creativity within the higher education environment. The first approach makes sense of the diversity of disciplinary research perspectives on creativity. The special issue of the *Creative Research Journal* entitled '*Interdisciplinarity, the Psychology of Art, and Creativity*' (Lindauer 1998) introduces various research approaches to creativity across the humanities and sciences disciplines. More precisely, this issue advocates for deeper interdisciplinary research between scientific psychology of art and creativity, and arts based-disciplines. In the context of education, Andiliou and Murphy (2010) highlight the exploration of teachers' beliefs about creativity in various knowledge domains and cultural contexts as a potentially fruitful line of research. In the same vein, my research investigates academics' understandings of creativity across disciplines within HE.

Moreover, this follows a growing literature that makes a case for interdisciplinarity in higher education as a tool to open spaces for creativity in terms of learning and teaching experiences (Mc William et al.2008; Dillon 2006, 2008), as well as reflecting more closely contemporary research, which increasingly operates beyond disciplinary boundaries. Since October 2000, the developmental psychologists Gardner and Boix Mansilla under Project Zero²⁶ have explored the cognitive, organisational, and pedagogical qualities of interdisciplinary work and its relationship with creativity within the education environment. Through an action research project, my study aims at exploring the potential of an interdisciplinary collaborative group to encourage academics to engage in creative practices.

²⁶ Project Zero was founded at the Harvard Graduate School of Education in 1967 by the philosopher Nelson Goodman to study and improve education in and through the arts; Project Zero's website is available from <http://pzweb.harvard.edu/index.cfm>

Drawing on a theoretical framework which I have constructed, my argument is that constraints perceived by academics on their creative approaches are not entirely extrinsic to them. Chapter 5 will further develop this framework. It echoes the three dimensions of Csikszentmihaly's model (1996) as it takes into account the tied relationship between academics, their academic identities and their disciplinary environments in order to understand the constraint mechanisms operating on their approaches to creative teaching. The individual dimension can be related to the academics involved in my study. The domain dimension, as the set of symbolic rules, procedures and knowledge shared by a particular society, refers to their disciplinary structures. The field, as the individuals who act as gatekeepers and who can decide whether a new idea should be included in the domain, echoes their disciplinary communities.

However, the proposed framework diverges from Csikszentmihaly's theory (1996). I argue that the dimension of disciplinary community as such, or the field in Csikszentmihaly's terms, can only be considered partially to explain the emergence of creative teaching approaches. Drawing on Castoriadis's conception of the 'social imaginary' (1987, 1994, 2007), my framework argues that the 'social imaginary' of disciplinary communities is at the core of creativity restriction or enabling in terms of teaching experiences. Academics, as creators of this 'social imaginary', have a role to play in the restrictions they can experience. A change in the 'social imaginary' of disciplinary communities, through interdisciplinary collaboration, may encourage academics to challenge their conceptions, especially, of the disciplinary structural constraints on their creative teaching. Subsequently, it can empower them to change their practices towards creative teaching approaches.

Therefore, my approach goes even beyond a systemic approach to creativity since it recognizes the fundamental role of individual and collective imaginaries in the emergence and comprehension of creativity. Only a few scholars such as Elliot (1971) have examined creativity in relation to imaginary, imagination and imaginativeness. In addition, only a small part of the literature (e.g. Jackson et al.2006; Halpin 2008; Nygaard et al.2010) has investigated the relationship between creativity, imagination, teaching and learning and curriculum at the higher education level across traditional disciplines. Fewer still (e.g. Donnelly 2004) have researched these issues within the Irish context. In addition, some (e.g. Appadurai 1999; Rizvi 2010; Kanellopoulos 2010; Rojanapanich and Pimpa 2011)

have pointed out the critical dimension of 'social imaginary' (Castoriadis 1987, 1994, 2007) towards potential change within the education system, and beyond. No research drawing on such concepts within the context of Irish higher education have been published.

2.5. Conclusion

This chapter has reviewed the existing literature on the concept of creativity and more particularly its position within education research. Following Hennessey and Amabile's model analysis of creativity (2010), different research approaches to creativity were put forward: individualistic, contextual or systemic. My research fits into a systemic research approach to creativity within the higher education context. The interrelation between academics, their disciplines and their academic communities is taken into consideration to explore creativity emergence and limitations at the higher education level. Yet, my research also considers another level of analysis to understand creativity constraint mechanisms on teaching that relates to the role of the 'social imaginary' of disciplinary communities.

Chapter 3: Research methodological path and rationale

3.1. Introduction

This chapter gives the rationale underlying the transition I made from an initial pilot study, undertaken in my first year PhD to my main study conducted subsequently.

Research on creativity within the higher education context is not an easy task. The concept of creativity is an elusive one, which makes sense only when it is related to practice. From a constructivist epistemological perspective, my understanding of creativity in relation to teaching practices has been largely influenced by my interactions with my research participants. Yet, higher education is not the seat of only one single practice. Myriad practices exist within the university. Not only do they diverge from one discipline to another, and but also from one practitioner to another. In that sense, the researcher can follow many paths in order to grapple with the concept of creativity.

From the very start of my PhD, I experienced difficulties in attempting to conceptualise creativity in higher education. Action research encourages critical self-reflection and transformation of research practice towards progress. My study was grounded in an action research approach in which I engaged in a critical self-reflection on my research practice in combination with theory reading. It encouraged me to transform and adapt my research approach throughout the work.

3.2. The role of the 'action research' researcher

In the first place, it is important therefore to stress my role as an 'action research' researcher, and how it influenced the research process and outcomes.

The objective of the researcher in an action research project is to investigate:

Professional experience which link practice and the analysis of practice into a single productive and continuously developing sequence, and which link

researchers and research participants into a single community of interested colleagues. It is about the nature of the learning process, about the link between practice and reflection, about the process of attempting to have new thoughts about familiar experiences, and about the relationship between particular experiences and general ideas (Zuber-Skerritt 1996:14).

In that respect, action research helps the participant to transform their understanding of a situation in relation to their practices. Yet, the research practice also transforms the researcher's initial understanding of the situation:

Through involvement in the action research process, we not only submit the others' accounts to critique, but our own also. We note not only the contradiction in others' viewpoints, but also the contradictions and possibilities for change in our own viewpoints [...] We are part of the situation undergoing change. We have no theoretical basis for exempting ourselves from the processes we set in motion. On the contrary, we want to change, because we want to learn. The only viewpoints we want to support are those which have newly emerged in the course of our fieldwork; those we started out with we wish to transcend" (Ibid:23)

Thus, because action research practice leads towards unpredictable outcomes, and transforms practitioners' perceptions of what is initially relevant to him or her, the search for a relevant research focus becomes difficult. "This range of possibilities creates a difficulty as to which of the many problems to select for the sustained attention which an action research project requires. The simple answer is that we decide what seems 'interesting'. But this merely serves to renew the question: what is the nature of our 'interest?'" (Ibid:14-15)

As participants and researcher are mutually involved in the research process, data generated through an action research project can encourage participants to acquire knowledge and improve their actions. However, it also can help the 'action research' practitioners to "raise their capacity in gathering the kinds of data that are going to help them also make quality judgements on their work" (Whitehead and McNiff 2006: 6); find their research interests; and make progress in their work to grasp a fuller understanding of the situation.

The considerations described above have informed the way my research project was conducted. This chapter reflects the exploratory and challenging journey I went on, and what I learnt throughout the combination of critical reflection, practice and the reading of theory. Yet, my research practice also transformed my understanding of the situation, and led me to numerous changes in terms of data collection methods (see Table 1 below as summary of the different methods used over the research process) to overcome the challenges I experienced. My practice made me realize what was possible or not, and what were the obstacles and benefits of the data collection methods I was using to further my investigation. This chapter will develop, for instance, how I initially tried to work with students via group-interviews and video-recording to get their perceptions of creativity in relation to their learning, and challenge such perceptions. Yet, when I began to face challenges of data collection with the students I decided it would be more productive for my research to focus on academic staff.

As the result of this learning journey, my initial research focus was changed towards a new research object identified as creativity constraints on teaching in HE; leading me towards the design of an appropriate method to investigate the research object that was a collaborative enquiry group with academics - developed in detail in chapter 4. Also, the exploratory nature of my research journey (based on practice, reflection, and theory reading) led me to the development of a conceptualisation of my research object through a theoretical framework, developed in chapter 5. Subsequently, I have been able to analyse the data I collected through this collaborative enquiry, and explore its meaning with the support of the conceptual position I took as developed in chapters 6,7,8.

3.3. A challenging conceptualisation of creativity in HE as research object

3.3.1. MA research experience as a milestone for my research

The first step I took in the research on creativity within the higher education context is antecedent to the start of my doctoral studies. In chapter 1 it was explained that I undertook a Masters programme at the University of Exeter in England over the academic year 2007-2008. Throughout this year, I experienced a higher education system where the notion of creativity was used as political rhetoric in terms of learning and teaching experiences. The

UK political leitmotif is based on the argument that developing creative abilities in people is beneficial for an innovative economy. Craft (2011) explains: "Since the mid 1990s, there has been a growing recognition from policy-makers that learning creativity is an extremely important aim in education. The economic imperative to foster creativity in business has helped to raise the profile and credentials of creativity in education more generally"(11).

In the framework of my MA thesis, I explored academics' and students' perceptions of this UK political discourse on creativity within the higher education context. My research participants were mainly from the Departments of Education and Politics from the University of Exeter. From document analysis, observations and interview data, I found a dichotomy between academic teaching practices and top-down political discourses (Boulos 2008). Academics and students assumed creativity was beneficial for students to develop their potential over their higher education experience. Further, there was a consensus on the need for creativity within UK universities to respond to the demands of ongoing social and economic changes appearing in society. In that sense, a change of paradigm in education seemed to emerge and the UK policy discourse on creativity appeared to be well accepted within the HE community.

Yet, when it came to examining further teaching and learning practices, I realised this type of discourse was hardly implemented on the ground. The discourse seems to contradict the intrinsic nature of creative teaching that holds a potential for individuals' transformation and autonomy. I argued earlier that the instrumentalist political discourse of creativity in HE does not consider ethical questioning of the nature of creativity. Creativity is seen as a skill that students should acquire to enter the job market, which ultimately would serve the purpose of the economy. Creativity is not seen as a vector to enable students to become more autonomous individuals, and encourage social progress.

In addition, the challenging nature of creativity, as a vague and abstract notion, had different meanings in different disciplinary contexts. As a result, the development a coherent conceptualisation of creativity in HE was difficult. As I will develop in the next sections, these elements have been reconfirmed throughout my PhD pilot study and influenced the path I took towards my main research study.

3.3.2. Initial doctoral research steps

Literature review exploration

In the first year of my doctoral studies, I pursued the exploration of the existing literature on creativity in higher education that I had started in my MA studies. I investigated the varied literature on the nature of creativity undertaken, for example, by Csikszentmihalyi (1996), Sawyer (2006) and Amabile (1996). I also examined the literature, which contextualized creativity in the political and economic environment such as the work of Florida and Tinagli (2004) or official documents such as the UNESCO World Conference on Higher Education (1998). To go further, I investigated the growing literature on creativity such as the work of the two researchers Craft (2001) and Fryer (1996) in order to understand the concept of creativity and its relationship with education. Recent research on higher education by Jackson (2003) and Jackson et al. (2006) has also offered valuable insights into the impact of creativity within tertiary education. In addition, I paid attention to a specific literature on emotional and embodied learning processes (Gardner 1993b; Vandervoort 2006) within the university context.

This exploration highlighted that an individualistic research approach to creativity in education was predominant in the literature as argued in Chapter 2. Such an approach is mainly based on interviews as they are efficient tools in order to gain various individual comprehensions of creativity in terms of teaching experiences. In that respect, Cohen et al. (2007) suggest: "Interviews enable participants to discuss their interpretations of the world in which they live and to express how they regard situations from their own point of view" (349). For instance, some researchers (e.g. Jackson et al. 2006; Kleiman 2007) have conceptualised creativity in HE based on this research approach. However, this does not take into consideration how individuals perform within an environment, and consequently how their perception of a particular situation is influenced by the relationship they have with their environment. As a result, a complete understanding of the situation is difficult (Ashwin 2008, 2012) although interviews add valuable insights on which to build.

Observations of the Irish higher education environment

Discussions with academics and students:

In parallel to this literature exploration, from the beginning of the academic year 2008-2009, I experienced numerous informal and inspiring conversations with many academics from NUI Galway and staff from the Centre for Excellence in Learning and Teaching. In addition, I had several informal meetings with students I met on campus to discuss creativity and learning.

I did not choose participants randomly but they were selected purposefully to make my research investigation progress. I targeted students and academics who are interested in the topic of creativity and teaching, and who would be willing to self-reflect on their learning and teaching experiences. They were identified as being interested in creativity by their enthusiastic reactions to my PhD topic, and their willingness to discuss it. Consequently, I believed their experiences could contribute to my study. However, it is important to notice that my research approach was not defined yet as it was the very beginning of my study. I thought then it would be appropriate to take a fairly informal approach with my first participants in order to see where this could lead me.

I informally questioned each of them on their conception of creativity in relation to their teaching and learning experiences at the tertiary level. The key points were recorded through notes in my field diary. At the end of each week, I reflected on the notes I took. I noticed that a variety of meanings of creativity in HE emerged from these discussions. Hence, although, some researchers previously mentioned (e.g. Jackson et al. 2006; Kleiman 2007) tried to conceptualise creativity in HE, based on an individualistic research approach to creativity, the start of my doctoral practice confirmed an approach aimed at gathering individuals' accounts could lead to a difficulty in terms of developing a coherent understanding of creativity within higher education.

Observations of classrooms:

I also observed various classes across disciplines such as drama, mathematics, philosophy, Spanish, sociology and economics. My motivation was to gain a better understanding of the context in which my participants were working and studying. I also wanted to gain a better sense of the various teaching and learning experiences present at NUI Galway. Subsequently, I hoped I could develop an understanding of the extent to

which creative practices exist in that context. Cohen et al (2007) who have researched and written on education research methodologies, state: “Observation methods are powerful tools for gaining insight into situations” (412). My observations were at that stage unstructured ones. My approach was to “sit at the side or back of the room and make detailed notes” (Somekh and Lewin 2005:140). My classroom observations were then recorded via notes in my field diary. I also elaborated diagrams to record visually what I was observing in terms of classroom settings. Diagrams can be useful tools to record learning environment set-ups (Acheson 1981). The different teaching environments I observed were offering diverse and singular spatial organisations, such as a proper theatre for drama classes, a language lab for Spanish classes, formal sociology and mathematics classrooms and an amphitheatre for economics lectures²⁷.

At that stage my understanding of creativity in HE was still unclear. As Amabile (1996) claims: “There is only a small research literature on the effects of specific social and environmental influences on creativity and, more importantly, there are virtually no experimental studies of the effects of such influences” (3). Because of the focus on the individualistic approach, some important areas of inquiry into creativity have been ignored. As she pursues: “There has been a concentration on the creative person, to the exclusion of creative situations” (Ibid:3). Yet, the issue of social environments as favourable to creative performance is fundamental in the understanding of creativity. I assumed therefore I could investigate the potential relationship between creativity emergence and learning environments to gain a better understanding of creativity. I did not systematically analyse the data I collected because my research object, and the approach to research it, were still unclear. Yet, in the perspective of investigating such possible relationships, I reflected on the notes I took during the observations and looked back at my diagrams. Some of the following research steps, described in the next section, are oriented towards the investigation of such possible relationship.

3.4. Towards a clear definition of the research object

3.4.1. Pilot study

The aim of this pilot study was to enable me to better develop a conceptualisation of creativity in higher education, and consequently find

²⁷ See appendix II: diagrams of various classrooms observed

the appropriate methodology to research it. Initially, numerous ideas of how I could potentially undertake my research emerged through reading and thinking about the literature.

I assumed undertaking group-interviews, placing participants in more a social context than individual interviews, would encourage them to construct a shared knowledge of creativity. As a result, I could develop a meaningful conceptualisation of creativity within the university environment.

Student group-interviews supported by video screening

Rationale:

I believed the use of videos of classroom interactions could be an efficient and creative way to get a record of my observations, and notably of the learning and teaching environment in which my participants 'perform'. Images produced for research purposes record reality such as people, but also places, things, actions or events, which are sources of information and amenable to analysis. Through the images, video can capture another dimension of social interaction very often neglected by other research methods, which use mainly verbal or written information. Flick (2006) argues: "Compared with interviews, they provide the non verbal component of events and practices, which could otherwise only be documented in context protocols" (240). The film or video allows then "the researcher to deal with the 'what' as well as the 'how' of behaviour because it can capture the 'sparkle and character' of an event" (Ibid: 6).

I did not want to analyse, at the micro level, the data generated by the videos as such, but rather use them as tools to facilitate discussion during the group-interviews. I wanted my participants to reflect on their own learning experiences, and notably in relation to their learning environments to construct a coherent understanding of creativity. Ashwin (2008) argues that the use of videos in research can be "the basis for reflection by academics and students about what is occurring" (155) as they better reflect on the interactions between teaching and learning within classroom settings than only individual accounts of their experience.

Along this line, Flick (2006) claims a genuine video research method should be combined with other research methods. He states: "It is best used in combination with other methods, fieldwork in the classical sense, additional interviewing and observation beyond the camera"(Ibid: 243). Video can be

integrated “in more comprehensive research strategies as in combination with interviews or in this way, visual data methods complement verbal data methods and build up comprehensive multi focus research”(Ibid: 243).

Sample:

My initial wish was to work with samples of students rather than of academics. Throughout the literature review process, I noticed that a large part of the literature explores academics' perceptions rather than students' perceptions of creativity in HE. In contrast, I considered researching students' views in order to pursue a more innovative research approach.

During the second semester of the academic year 2008-2009, academics from the various disciplines I observed agreed to grant me access to their classes for my research. Consequently, I decided to videotape three different types of classes which I observed during the first semester. I considered them convenient for video recording as the three classrooms held a small number of students. In contrast to large groups, I could move easily without disturbing the students and the teachers, and videotape real interaction within the situation. The first class was a sociology seminar, which was taking place in a formal classroom setting. A group of twelve MA Community Development students were part of this seminar. The second class was a Spanish seminar, which was taking place in a language lab. Twelve third year students were part of this class. The last class was a drama seminar, which was taking place in the Bank of Ireland theatre on NUIG Campus²⁸. Twelve third year students were part of this seminar. These three classes embodied three different disciplines and philosophies of teaching. Yet, I considered them equally relevant as empirical fieldwork for my research on creativity. Drama as a creative-arts discipline can be perceived as a more intrinsically creative subject than Spanish or sociology. It can be assumed then that learning processes and teaching methods used in these three subjects will differ. Despite these divergences, I believe the plurality of approaches to teach and learn subjects, as sociology and Spanish, can allow as much room for creativity as creative subjects, such as drama. In that sense, Gardner (2008) mentions that any topic worth studying could be open to a plurality of approaches. Referring to his theory of multiple intelligences, he states:

²⁸ Theatre sponsored by Bank of Ireland built on NUI campus

While a specific discipline may prioritize one kind of intelligence over the others, a good pedagogue will variably draw on several intelligences in inculcating key concepts or processes. The study of architecture may highlight spatial intelligence, but an effective teacher of architectural design may well underscore and make use of logical, naturalist and interpersonal perspectives (Ibid:33).

To him, the teacher can encourage disciplinary understanding through diverse entry points such as stories, logical expositions, debate, dialogue, humour, role play, graphic depictions, video or cinematic presentations.

Preparation for videotaping:

Prior to the videotaping, I undertook observational fieldwork in order to “familiarize myself with the physical and social environments” (Flick 2006:243) of these classes. This enabled me to resolve technical issues, such as what type of camera I would use or where I would place the camera while I was recording. Students' consent to be filmed was also necessary before starting recording. However, I had planned to videotape another MA sociology class in addition to the first one. After discussion, the students of this class decided not to take part in my research project. The rationale was based on their fear of the camera and of the potential misuse and dissemination of their images.

Although I was familiar with the literature on video as a research tool, I had no practical experience concerning videotaping classrooms. Thus, I decided to follow my intuitions and impressions once I was in the classrooms. From my second recording, I felt more and more confident with the use of the camera in itself and with the videotaping process. Yet, throughout my recording experience, I faced different technical issues and realized the various limits of the video as a research tool. The video is a relevant observation tool; yet, I, as researcher, was behind the camera selecting what I wanted to record or not. Ratcliff (2003), who has written about the use of video as a qualitative research tool, states: “Besides the value of the technology of video and computer programs, the most important qualitative analytical tools are the human eyes and brain; the video can only assist the researcher” (118). In that sense, the use of video is intrinsically a subjective act as “film-makers construct versions of reality by their own choosing” (Flick 2006: 240). While videotaping, the researcher makes choices influenced by her identities and intentions (Collier 2001). These choices are also affected by her relationship with the subject filmed (Collier 2001). The support of participants or outsiders in the video analysis

process can be at least an efficient tool to counterbalance this phenomenon of subjectivity. The researcher needs not to accomplish the analysis task alone. This task can result in a co-operative effort of both the researcher and participants (Collier and Collier 1986). Participants can view segments of the video produced and offer their understanding of what is portrayed.

Generating data:

After the recoding was made, my first idea was to screen the videos to different student groups across disciplines in order to encourage students to reflect on their learning process within the university. The unfamiliarity of what they could view could challenge their assumptions about student learning experiences (Clarke and Hollingsworth 2000). I believed it could stimulate debates among students. Yet, I quickly realized that the task would be extremely ambitious in terms of time management to find and gather students willing to participate in that type of experiment. Consequently, I chose to screen the video only to the group concerned. Prior to the screening, a considerable amount of editing was required in order to make the video accessible to the students in terms of time schedule and relevance.

A video of five minutes was then screened to the sociology group followed by a group interview. The motive was to provoke students to reflect on their learning experiences. I arranged with the sociology lecturer to take twenty minutes to play the video and discuss with students during one of her classes, some weeks after the videotaping. The group-interview I undertook with students was audio recorded and transcribed in full. I also reflected on my experience of the process through notes recorded in my field diary.

Because of time constraints, it was impossible to find a convenient slot to screen the video to the students of the Spanish class. However, the Spanish teacher uploaded a video of five minutes, I made with her class, on the class's Blackboard (VLE)²⁹ site. Along with the video, a message was sent to the students with several questions. I wished to elucidate their perceptions of what they could observe in the video in relation to their learning experience, environment and creativity. Unfortunately, none of the fifteen students targeted answered the questions. Students were in their

²⁹ Blackboard is a Virtual Learning Environment. It consists in an information management software that students and lecturers can use to discuss online, upload, access and share course materials and other files. The Blackboard software was initially introduced by CELT at NUI Galway in 2003. CELT assists academic staff with any queries regarding how to use Blackboard for teaching and learning purposes, and also runs regular training courses in this regard.

exam week of the semester when they received the message. This inconvenient timing can represent one hypothesis to explain their absence of responses and as a result, no concrete data was generated.

In contrast with the previous videos, I thought the film made in the drama class would be interesting to analyse, notably because of the setting. This setting embodied an unusual learning environment within a university. This video was rich with data on issues related to embodiment, emotions and space in terms of learning experiences. It is important to point out that although drama, as a performance-based subject, may naturally be expected to be 'creative' in its approach to teaching, what was distinctive about this particular example was that the lecturer was recognised by students and colleagues of being particularly creative and highly skilled, beyond the norms of practice within that discipline. Indeed, she was a recipient of a University Award for Teaching Excellence and provided interesting contributions towards the shaping of my ideas. Sadly, during the course of my PhD, she passed away at a young age, leaving her students and colleagues bereft. I did not pursue anything with this video material.

Lessons drawn from reflection on data

At that stage, my aim was still to find a relevant conceptualisation of creativity in HE, and find an appropriate research methodology to research it. Reflecting on all the data gathered: the transcription of the student group-interview, notes recorded in my diary on the process of group-interview, and my experience with other groups of students, led to a clearer conceptualisation of the research object and progress in identifying an appropriate methodological approach.

Firstly, the Spanish students' absence of comments in reaction to the video can possibly indicate that they did not see any particular value in engaging with the current PhD work that was removed from their own goal: exam success. In addition, I did understand that students have difficulties in expressing themselves in terms of learning processes, even when they are given the space to do so. The classroom is a space in which students are assessed. They perhaps do not perceive the classroom as a safe environment in which they can feel free to comment on their learning experiences. The behaviour of the sociology students throughout their group interview is a striking example. Students were timorous in their answers and had difficulties critiquing what they were seeing and reflecting

on their positions as learners.

One explanation of this behaviour can come from the fact that already at the secondary level; the Irish education system tends not to nurture critical thinking and creativity within students. Examinations, and more especially the Leaving Certificate Exam, as the final exam of high school, are based on high stakes tests that affect students' learning experience. As Smyth et al. (2011) argue: "Critics argue that high stakes examinations reduce the breadth of the curriculum by emphasising only subjects and dimensions of learning that are tested, encourage teachers to 'teach to test', and motivate students to learn test-taking skills rather than content and higher order cognitive skills" (6). Consequently, students have no space to develop their critical thinking, nor reflect on their learning experience and develop creative skills. At the higher education level, traditional lecturing methods do not give students the possibility to express themselves and become critical thinkers either. Small tutorials classes may be the only spaces in which students have the opportunity to discuss their views and reflect on their learning experiences. Yet, they seem to face difficulties in doing so because of their previous experience within the secondary level. As one participant stated: "In my experience, all the creative stuff in the Irish educational system stopped at 14 when you leave for secondary school" (CG, A9)³⁰. Another participant followed: "Creativity was not on the curriculum of the schools I have come from!" (CG, A2).

I felt therefore frustrated and disappointed by the outcome of my experience with video recording combined with group interviews. I had thought the video would be a powerful tool to engage critical debate among students, and encourage them to construct a shared understanding of creativity in relation to their learning experiences. I collected interesting data but students' engagement and reflection on their learning process in relationship to their learning environment did not meet my expectations. During the group interview, the sociology students did not interact with each other. The discussion remained only backwards and forwards between individual students and I, as interviewer. I only gained sporadic and individual students' understandings of creativity in terms of learning experiences. In addition, the Spanish students did not engage at all with the video material.

Disoriented by my experience with students, I decided to play the videos

³⁰ See appendix III: labeling scheme according participants and data collection methodologies

that I made with the Spanish and sociology classes, to a regular research forum that is organised by CELT, which brings together NUI Galway Staff undertaking research in HE. My objective was to receive feedback and advice on my work, to orient my next research steps. This meeting took place on the 23rd of March 2009. Several academics from NUI Galway and CELT staff, unfamiliar with my research, were present. Outsiders can bring “with them different experiences and thus a wider variety of interpretations” (Ratcliff 2003:119) on unfamiliar research work. A vibrant debate emerged between the group members as regards creativity in relation to students’ learning experiences but also to teaching experiences. Reflecting back on this session, I realised that academics are more inclined to think critically and take part in debates than students as they have more experience and confidence. Consequently, although the conceptualisation of my research object was still not entirely clear, as an unexpected discovery of my research practice, it appeared to me that using academic staff as a sample rather than students would be more effective.

Focus groups with academics

Rationale:

I decided to explore academics’ perceptions of creativity in higher education in terms of teaching approaches. I assumed that academics would be more inclined to discuss their teaching experiences and construct a shared meaning of creativity in relation to teaching practices. In that perspective, I also decided to shift the research process by using focus groups as a new data collection methodology.

Contrary to my experience with student group-interviews, I was hoping to see emerging engagement and interaction between group participants. I assumed that a construction of a shared knowledge of creativity would be greatly encouraged within the context of focus groups, in which real interaction between participants can take place, than within group-interviews. Through focus groups, data emerge from the interaction of the group (Cohen et al. 2007) and the participants interact with each other rather than with the interviewer. Thereby, academics were assumed to be able to construct a shared understanding of creativity via these focus groups. Academics’ self-reflection on their teaching experiences within higher education was also part of my expectations.

Generating data:

On the 25th of February 2009, a session with several academics across disciplines (FG) was organized to get their perceptions of creativity in the light of their own practices³¹. These academics were part of the *Professional, Postgraduate Certificate in Teaching and Learning in Higher Education* (PgCert), a teaching program run by CELT for academic staff. They were from different departments including history, geography and Italian. We split up the group into two groups of three academics, and participants were asked to work through brainstorming, concept maps and discussions of their conceptions of creativity in relation to their teaching experiences. The session started with a brainstorming on the issue of what creativity meant for teachers. They noted their ideas on large paper sheets. Ideas, which emerged, were the problem of measurability of creativity and the constraints weighing down their creative practices. Then, participants were asked to draw concept maps. The first group, for instance, concentrated its map on two axes: creativity for students and creativity for teachers. Three main questions were raised: 'why?', 'how to do it?', and 'how do you assess creativity?'. Finally, a discussion between the two groups was encouraged. Each group explained their concept map to the other group, and a discussion emerged between the two. Some questions were raised such as 'what is the role of University?' or 'why don't we let students take more risks in their learning process?'. The discussion largely focused on external institutional and disciplinary constraints as obstacles to academics' desire to be more creative teachers. Academics were enthusiastic about the session and actively participated. The focus group was audio recorded and transcribed in full. Concept maps made by participants were kept. I also reflected on my experience with the focus groups through notes recorded in my field diary.

Lessons drawn from reflection on data:

At that stage, I spent considerable time reflecting back on the transcriptions of the focus groups, the concept maps, and the field diary notes. I discovered a shared understanding had emerged among participants around mainly external institutional but also disciplinary constraints that prevent them from developing creative teaching practices. I assumed therefore putting academics in focus groups was a fruitful data collection

³¹ Focus group with academics on 25/02/09, in CELT Room, Arts Millennium Building, NUI Galway, composed of 2 groups of 3+ two facilitators - Kelly Coate and I+ one CELT educational developer - Michelle Toher- who helped in the audio recording process and in taking notes.

method to engage participants in discussion and encourage them to construct a shared understanding of creativity constraints on their teaching. From there, I clearly identified that my research object would now focus on academics' perceptions of creativity constraints on their teaching.

3.5. Towards a conceptualisation of the research object

Although I had defined clearly I would focus my research on academics' creativity constraints on their teaching, my conceptualisation of this research object was still unclear. The way academics discussed the nature of creativity constraints on their teaching referred to institutional and disciplinary pressure. Yet, these discussions did not give clear insight into how such constraints were actually limiting them in their teaching. In addition, throughout my observations, I perceived that creative teaching practices could be more present within certain classrooms than others, notably the drama classroom. My own perception was confirmed by several informal discussions I had with several students of this class. They perceived the teacher of this class to be more creative than teachers of other subjects, in the sense that she gave them space within the classroom to question the knowledge taught, draw connection with their human experiences, imagine other possibilities, and feel really engaged in their learning process. Yet, she was also subject to the constraints mentioned by the others as she was working in the same university environment. I consequently started to question the discourse of the academics involved in my study. My hypothesis was that there could be a relationship between possibilities or constraints on creativity teaching practices and the nature of the disciplinary environment in which academics work.

However, the data I gathered so far could not give me the possibility to confirm such an hypothesis. My background in Political Sciences naturally encouraged me to read political and social theory to support my research investigation. Trowler (2012) and Ashwin (2012b) explain that theory is not very often used in HE research; yet one function of theory is to guide the researcher, helping him or her to define research problems, conceptualise the research object, and to indicate appropriate research designs to investigate them. In the case of my research, the use of theory helped me to shape a conceptualisation of creativity constraints on teaching as my research object.

As I had thought about potential relationships between academic

disciplines, the emergence of creativity and limitations, my initial theoretical reading was oriented towards Foucault's conception of disciplinary power (1975). Although the definition of academic 'discipline' is not straightforward, as disciplines are very different from one to another within the university system (Becher and Trowler 2001), I thought learning about the etymology of the concept would be valuable. In that respect, I discovered the potential of disciplinary power constraints on individuals. As a result, I assumed it would be interesting to further explore, via research practice, the relationship between the constraining power of disciplines and the limitations on academics' creative teaching in order to test the theory.

However, in order to do so, I needed to find a methodology where I could take into account, at the same time, academics' perceptions and discourses and also their practices and the disciplinary context in which they work. Chapter 1 introduced Ashwin (2008, 2012a), who argues that getting individuals' perceptions does not lead the researcher to have a complete picture of the situation. The relationship participants have with their structure influences their perceptions and discourse. As a result, the researcher needs to examine simultaneously their perceptions, discourse, practices and systems in which they are located, to get a complete explanation. The early focus group enabled me to look at academics' perceptions and discourse of constraints on creative teaching within HE. Yet, it did not concretely help me to also investigate the relationship between their practices and their disciplinary environment. As developed in the next section, I considered whether an interdisciplinary collaborative group was an appropriate method to examine all levels of analysis at the same.

3.6. A collaborative enquiry group as an appropriate data collection methodology

Rationale

An action research project based on an interdisciplinary collaborative enquiry group appeared to be the best methodological approach to get a more complete explanation of teachers' perceptions of the constraints on their creativity. I could examine whether academics' perceptions, and discourse on constraints were confirmed through practices within this interdisciplinary context. In that respect, I could explore whether the disciplinary backgrounds of participants would affect the possibility of

interdisciplinary collaboration as a vector of creativity practice.

Collaborative groups represent a contextual environment to explore creativity. From a romantic perspective, creativity is the product of one singular creative figure such as the poet or the genius composer. By contrast, from a contemporary perspective, creativity relies “on joint cooperative activities of a complex network of skilled individuals” (Sawyer 2006:113). In collaborative group work, for instance, participants can develop a creative product. Sawyer’s metaphor of a jazz band illustrates this idea of collaborative creativity:

The improvisations of a jazz ensemble are group creations. To explain jazz creativity, scientists focus on the musical interaction among members of the ensemble (Sawyer 2003). Of course, each musician is individually creative during the performance, but the creativity of the group as unit can only be explained by examining social and interactional processes among the musicians. No one can generate a performance alone; the performers have to rely on the group and on the audience to collectively generate the emergent performance (Sawyer 2006:119-120).

The crucial point concerning interdisciplinary collaboration concerns the possibility of “talking across subject boundaries” (Walker 2001:47), of mutual learning between participants, and of self-reflection on disciplinary practices. Walker gives an account of the action research approach she undertook through a cross-disciplinary collaborative group work with academics. One of her participants states: “I have gained considerable insight into pedagogical practices both generally and across a range of subject areas and I better understand how much such ideas might be incorporated into my own discipline” (Ibid:47).

Consequently, I also assumed this interdisciplinary collaborative enquiry method, would encourage participants to question their understanding of the constraints they experience in developing more creative approaches to teaching. As Walker narrates of her collaborative group experience: “We sought to explore the building of 'educative relationships' in which learning was mutual, generated through self-reflection on what we did and how we did it, but also inter-subjectively, where we communicated our understandings to others who challenged and questioned” (Ibid:54).

Generating data

CG sessions overview:

Under Dr. Mac Labhrainn's initiative (CELT Director), a Creativity Group (CG) with academic staff from various disciplines at NUI Galway was set up in September 2009. This aimed at facilitating discussions and shared reading around the idea of creativity, curriculum, disciplines, learning and teaching. Participants were asked to meet regularly throughout the academic year. The CELT director and I were supposed to facilitate the meetings. In addition, academics had to consider summarising some of their discussions through the generation of a product for the 2010 Galway symposium³² on creativity in HE. Most of them had completed the PgCert. They had indicated that they wanted to take part in this type of group activity as they had interests in creativity in relation to their teaching practices. I believed such motivation would be beneficial for their group work. Consequently, it would support my research progress. I audio recorded the sessions and, transcribed them for later analysis. I also took notes recorded in my field diary as regards the CG process and my experience with this data collection methodology. I also provided participants with a summary of each session. The summary provided useful data for reflecting on the development of the group processes and preparing subsequent meetings.

Questionnaires and individual interview:

In addition, two other data collection methodologies were used as part of the overall CG strategy: two online questionnaires to the CG participants, before the first group session and after the last group session; and one individual interview with one participant of the CG after the last group session. These methodologies were meant to gather data on participants' perceptions of the CG process. The questionnaires were kept for later analysis. The next chapter will give more details about these methodological approaches and their rationales.

Video-clip interviews:

To support the CG facilitation, I also decided to undertake more structured interviews with eight academics from NUI Galway and the Burren College

³² See footnote 20

of Art. In my opinion, they could embody creative teaching across different disciplines (e.g: arts, sciences and business)³³ as their teaching subjects referred explicitly to the notion of creativity. For instance, one of them from the business department taught a module entitled 'Creativity and Innovation'. Thanks to the video recording skills I gained from my pilot study, I filmed these academics. I produced then six small video-clips summarizing their individual understandings of creativity. Two academics were not willing to be filmed. I believed that members of the CG would be inspired by these video-interviews to engage in a critical discussion on the issue of creativity and teaching within the HE context. Thereby, although the interviews are grounded in an individualistic approach to creativity, they were used as support to create videos that would be exploited within a more contextual research approach. In that perspective, I audio recorded the interviews but I did not see the necessity to transcribe them at that stage.

CG2:

In addition to this CG, another focus group, CG2, was conducted in the framework of my study. This focus group gathered other academics across disciplines from NUI Galway to discuss also the theme of creativity constraints in higher education. The rationale underlying the establishment of such a group was, in addition to holding a focus group session for data gathering purposes, to also explore the potential for the formation of a second collaborative enquiry group. In that sense, I could compare it with the first CG set up in the framework of my research. The CG2 also considered the generation of a product for the 2010 Galway Symposium. Yet, because of time constraints, staff workloads and commitment to other activities, the group met only twice and remained a focus group discussion. No further collaborative work was initiated and no product was generated for the conference. The session was however audio recorded, and notes were recorded in my diary during the sessions. The data gathered were kept for later analysis.

Lessons drawn

I have already argued that throughout the CG sessions I deeply reflected on the group process through notes recorded in my field diary – this reflection will be developed further in the next chapter. In that respect, I

³³ See appendix III: The eight disciplines are listed under the coding for participants-interviews

aimed at examining at the same time academics' perceptions, discourse and practices within the CG interdisciplinary context. It helped me to better conceptualise creativity constraints on teaching, as perceived by academics.

Academic staff discourse on creativity constraints referred frequently to institutional constraints, such as limitations of time. The experience of CG2 confirms also the dimension of these constraints. Academics perceived the two CG2 sessions as vital cross-disciplinary discussion spaces. Yet, because of time and institutional constraints, they represented the only spaces given to them, within NUI Galway, to gather and discuss with colleagues from other disciplines.

The CG was set up as a free space in which academics could have the freedom to engage in any type of creative practice. I discovered rapidly through the group sessions, academics' practices contradicted with their discourse. Although working in a context without obvious constraints (i.e. an open and free meeting in a neutral space), academics had difficulties in collaborating with their colleagues from other disciplines. I wanted to understand, further, why and how their perceptions had been constructed that way. At that stage, Foucault's conception of disciplinary power (1975) seemed to be confirmed with the absence of creative activities within the group. Academics appeared to be limited by their disciplinary background to engage in interdisciplinary collaboration and engender creative practices. I had however not enough elements to further explain the mechanisms of such disciplinary power constraints.

Reflecting back on the data I was gathering, I considered that the notion of identity was a dominant emerging theme. I started to think about the possible relationship between academics' perceptions on creativity constraints, disciplinary power and their academic identity. In the next chapter, I will reflect on a theatre group process in which I was involved, and draw a comparison with the CG process. This reflection strongly encouraged me to look into the direction of a possible connection between identity, discipline, and creativity constraints.

Because of my former Political Sciences studies, I already had an understanding of Taylor's work on the construction of identity (1989). I decided to have a deeper look at his work in order to support the development of my ideas. This reading helped me to conceptualise the

construction of academic identity within a disciplinary framework and its impact on academic practice. However, the data I had accumulated to date did not sufficiently address the construction of academic identity, nor clearly elucidate how such can relate to constraints and limitations on teaching practices.

	Initial methodological steps	Pilot study	Main study
Method 1	Informal discussions with NUI Galway academics and students across disciplines		
Method 2	Observations of NUI Galway classrooms across disciplines		
Method 3		Video classrooms (Drama, Spanish, Sociology)	
Method 4		Group-interview with sociology class supported by video	
Method 5		Questionnaire and video posted on blackboard for Spanish students	
Method 6		Focus groups with academics (PGcert students)	
Method 7			Interviews with 8 creative academics
Method 8			Video-clips interview with 6 of the 8 creative academics
Method 9			CG group- 7 sessions
Method10			1 questionnaire to participants before sessions
Method 11			1 questionnaire after sessions
Method 12			One individual interview with one CG participant after sessions
Method 13			CG 2- 2 sessions

Table 1. Summary of the different methods used over the research process

3.7. Conceptualisation of constraints on creativity in teaching in HE, perceived by academics

Within the recorded video clips, produced initially to open up discussion in the CG, a number of interviewees commented on identity. Although grounded in an individualistic approach to creativity, I assumed this data could provide me with insight into the relationship between creativity limitations, academic identity and disciplinary power. The interviews were transcribed in full. I started the analysis by writing down the emerging themes for each interview. I coded each theme with one particular colour. Subsequently, I compared them and found similarities across interviews. I gathered them in sub-categories. Based on my previous reflections on data and theory, I collated the sub-categories into three themes that confirmed that my previous research orientations were going in the right direction. Discipline and identity in relation to creativity emerged as the two first main themes. The third theme was the concept of imagination as a vector of creativity.

At this point the very inspiring work of Castoriadis (1987, 1994, 2007), who connects the construction of 'social imaginary' and creativity emergence, offered new insights to the emerging themes. I established a link between the construction of the 'social imaginary' of disciplinary communities, its impact on the construction of academic identities within disciplinary environments, and subsequently on the emergence of academic creative practices.

From there, I have been able to shape my conceptual "position taken" on my research object (Ashwin 2012b:946). Chapter 5 outlines this conceptual position. It "illuminates links between different levels of analysis" (Trowler 2012) - the relationship between academics, their identities, their disciplinary environments, and the 'social imaginary' of their disciplinary communities - to explain the way academics' perceptions of creativity constraints on their teaching have been constructed. This framework makes sense of the dichotomy revealed in the context of my study between practice and discourse. It has been discovered as an unexpected outcome of my original research praxis. I understand research praxis as "the dialectical relationship between theory arising from practice and practice being improved by theory" (Zuber-Skerritt 1992:83).

It is important to notice that I could have carried on identifying more themes at additional levels of analysis, but I considered that three broad categories captured the essence of the situation. Investigating the interaction between these three levels should give enough insight into how and why academics' perceptions of creativity constraints on teaching were constructed that way and, to ultimately challenge them.

3.8. Analysing data

3.8.1. The role of the researcher

In analysing quantitative data, the researcher seeks to reduce data to a story and its interpretation (LeCompte and Schensul 1999). It requires the researcher to immerse him or herself in the data to become familiar with it, then look for patterns and themes, search for various relationships between data, then visually display the information and write it up (Kawulich 2004). Yet, the process of analysing qualitative data varies from one researcher to another, "depending on how the researcher is guided by the research questions, the theoretical framework of the study, and the appropriateness of the techniques for making sense of the data" (Ibid:112).

As previously explained, the theoretical framework that informed my study has been developed in parallel to my data collection and data analysis. In that sense, the theoretical and empirical approaches largely influenced each other. McBride and Schostak (1995) refer to action research as a process that can be threatening for the researcher because it leads him or her to uncover his or her own prejudices. This chapter reflects on how my action research approach was a learning process that constantly challenged my initial understanding of the situation, and led me to methodological changes and a shift in my research interest.

The process of coding and data analysis took an important part in this learning process. However, the researchers' decisions in terms of data analysis and coding are not only influenced by ontological, epistemological and methodological and theoretical approaches (Creswell, 2007; Mason, 2002), they are also influenced by their personalities and subjectivities, and relationship with the research process (Sipe and Ghiso 2004). In that respect, the combination of different data analysis techniques (as described in the following sections) helped me to remain objective in my data analysis process.

3.8.2. Thematic analysis

LeCompte and Schensul (1999) suggest that data analysis can be done while the researcher is still in the field, and later when he or she is out of it. In the case of my study, the data analysis process started with the eight interviews mentioned above while I was still in the field collecting data (e.g. emerging from CG group). The approach undertaken was a thematic analysis. As Ezzy (2002) explains:

Thematic analysis aims to identify themes within the data. Thematic analysis is inductive because the categories into which themes will be sorted are not decided prior to coding the data. These categories are 'induced' from the data. While the general issues that are of interest are determined prior to the analysis, the specific nature of the categories and themes to be explored are not predetermined. This means that this form of research may take the researcher into issues and problems he or she had not anticipated (Ibid: 88).

As previously stated, the thematic analysis of the interviews helped me to identify three themes. The first two themes, 'discipline' and 'identity', were already anticipated throughout the combination of theoretical, empirical and reflective approaches, and confirmed by the thematic analysis. The last one, 'imagination' was not previously anticipated and emerged as an additional theme from the analysis.

Coding is the first step in data analysis. 'In short, coding is the process of defining what the data are all about' (Charmaz 1995:37). Therefore, the interviews were numbered from 1 to 8. I read entirely the transcription of my first interview (I, A1) and identified key parts/sentences of the text, each of them referring to one singular idea. They were highlighted with one colour and summarised by my own description phrased in a footnote under the text (see as illustration: appendix X, phase 1) in order to get a better grasp of the meaning of the data. The parts of the text corresponding to a similar idea were coded with the same colour. These ideas were compared and categorised under common themes (see appendix X, phase 2). Several themes emerged from this process. The use of colours made easily visible similar ideas across the transcription.

This process was done similarly with the seven other interviews. I kept the same colours used in the first interview (I,A1), and added additional ones

to highlight key parts of the texts corresponding to new ideas. In that respect, numerous themes emerged from coding the interviews. A comparison of the similarities between the emerging themes was made, and common themes across the interviews were kept (see appendix X, phase 3). Under the themes, I also listed the interview numbers (1 to 8) in which I could find corresponding quotes for future report writing. Finally, these common themes were compared between themselves and clustered under 3 main themes: 'discipline', 'identity' and 'imagination' (see appendix X, phase 4).

3.8.3. Content Analysis

The combination of thematic analysis and content analysis in qualitative research is appropriate because:

Content analysis assumes that the researcher knows what the important categories will be prior to the analysis. It restricts the extent to which the data are allowed to 'speak' to the researcher [...] For this reason, in qualitative research content analysis tends to be used in conjunction with other forms of data analysis that are more inductive and sensitive to emergent categories and interpretations (Ibid: 85).

In the framework of my research, the thematic analysis as described above was a more inductive approach that enabled me to identify three main themes necessary for later content analysis beginning "with pre-defined categories" (Ibid: 38). As previously explained, my theoretical framework (chapter 5) was developed around the three themes. The data analysed in the lens of the framework was: the transcription of the CG and CG2 sessions, and of the interview with one CG participant; the CG online questionnaires; the transcription of the focus group I collected during my pilot study; and the transcriptions of the eight interviews were also analysed in terms of content analysis.

More specifically, I re-read entirely the transcriptions of the data mentioned above. I also re-read the online questionnaires filled out by the participants. In each text, I selected units of analysis, and highlighted them according to three colours corresponding to the three themes: yellow for 'imagination', red for 'discipline', blue for 'identity'. I cut the text out and categorised the units by groups under the themes. Then, informed by the theoretical framework I had developed, I tried to figure out how the categories would fit together in order to tell a story. I investigated what

quotes were more and less important by identifying similarities and repetitions, and ultimately sorted out the ones to keep or not.

One major concern was to reflect the range of sources of data collected. McBride and Schostak (1995) explains that data should be triangulated in order to support a theory. Although some data are directly relevant to the theory, they should not be left over, and can be possibly used to explore contradictions in relation to the theory. In that respect, while bringing my data findings together, I tried to identify the major lessons learnt, the connections with the theoretical framework I had developed, explore contradictions and additional arguments that seemed to challenge or contradict my initial interpretations of the situation (Taylor Powell and Renner 2003).

3.8.4. Reflecting on the process

I reflected on the data accumulated whilst the CG sessions were still running. As previously mentioned, after each CG sessions, I took notes in my field diary to reflect on the CG group process, the experience of my participants, and my role as a facilitator. This helped me to develop my conceptualization.

Nevertheless, after the group sessions ended, I also went back to my notes, re-read them and tried to identify if some part of these could be classified under the three main themes. The ones identified were highlighted with the three colours corresponding to the three themes. I copied and classified them under one of the three themes on a separate sheet. I also tried to identify and sort out quotes of the CG participants (from the transcription of the CG sessions and individual interview with one participant, and CG questionnaires) that could refer to the group process. I highlighted, using the three colours, copied, pasted, and categorised the quotes under the three main themes on a separate sheet. The combination of reflection and categorisation helped me to construct a narrative about the CG group process that is reflected in the next chapter.

3.8.5. Creating the structure

Ezzy (2002) explains that “writing is an act of constructing meaning” (149). Yet, as described before, action research with its:

Dialectical, reflexive, questioning, collaborative form of inquiry will create a plural structure, consisting of various accounts and various critiques of those accounts and ending, not with conclusions intended to be convincing, but with questioning and possibilities intended to be relevant in various ways for different readers. We therefore need to consider the nature of a plural text to accommodate the plural structure of the fieldwork (Zuber-Skerrit 1996:23).

In that respect, the plural nature of my data findings and outcomes is reflected in the text of my thesis. For example, chapter 4 takes a strong reflexive stance that reports my reflective practice on my main data collection approach; whereas chapter 6,7,8 are the direct products of my data content analysis.

Overall, however, in these four chapters in which data is presented, the combination of author's voice, literature and participants' voices was used in the construction of the narrative to reflect the plural nature of the research process. "Most qualitative research reports include a mixture of theoretical analysis and illustrative extracts from the primary data" (Ezzy 2002:147). In action research, more specifically, not only the literature is used to complement and exemplified the author's voice but also participants' voices in the sense that they participate in the constructions of the texts' meaning (Atkinson 1999).

3.9. Conclusion

A posteriori, I would argue that my PhD research process embodied a creative process. Sawyer (2006), who has written about the myths around the notion of creativity, states that creativity is not the result of 'divine inspiration' but rather emerges from small step-by-step creative approaches, more or less successful, which lead to a crucial creative moment. In that sense, this chapter reflects that my research practice was not a linear activity that followed distinct steps in a specific way (Byron 2009). My research path emerged from small step-by-step insights supported by attempts and failures rather than one crucial sparkle coming from such a 'divine inspiration'.

It is important to stress once more that the study took place in a period of economic crisis that significantly affected the Irish university sector. The new managerial priorities of the Irish university have increased academics' workloads and stress without providing them with the necessary resources

and time to cope with these changes. From a critical perspective, not only was my objective to engage participants in the construction of a shared understanding of creativity constraints, but also in a critical self-reflection on their practices to challenge their perceptions. Ultimately, I believed the CG process would encourage them to change their teaching approaches towards greater creative experiences. Yet, here again, constraints limiting creative practices were confirmed throughout this case study.

The next chapter reflects on the CG process and practicalities, and challenges experienced by academics that helped me to develop a conceptualisation of creative constraints on teaching. Chapter 5 will develop in detail this conceptualisation that gave me new insights to analyse the data, and consequently I will discuss the meanings of my research outcomes in chapter 6, 7, 8.

Chapter 4: Interdisciplinary collaborative enquiry group in an Irish University

Creativity possibilities and limitations

4.1. Introduction

This chapter reflects on the potential transformative power, but also the limitations, of the interdisciplinary collaborative group involved in my study.

An action research methodology is a “powerful tool for change and improvement at the local level” (Cohen et al. 2007:297). Action research can be used, among many purposes as a professional development method as regards academics’ teaching approaches (Ibid). Throughout action research academics are encouraged to reflect on and transform their practices. The emancipatory character of action research enables participants to become conscious of the nature of the constraints on their practices and to act towards empowerment, freedom and autonomy (Grundy 1987).

However, emancipatory action research requires a collective practice. As Kemmis and McTaggart (1988) argue:

Action research is a form of collective self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of the own social or educational practices, as well as their understanding of these practices and the situations in which this situations are carried out [...] The approach is only action research when it is collaborative, though it is important to realize that the action research of the group is achieved through the critically examined action of individual group members (5).

Many theories have been developed around the concept of action research. The theory of ‘Action Science’ (Argyris et al. 1985) aims to promote reflection and enquiry on the reasoning behind human actions. It assumes that behind every action lies a mental model. The ultimate goal is to generate knowledge that is useful in solving practical problems. The theory of ‘Living Educational’ (Whitehead 1989; Whitehead and McNiff 2006)

attempts to explain the influence of the living educational theories of educators on the learning experiences of their students. For Whitehead (1989) asking self-reflective questions, such as "how do I improve what I am doing?", helps practitioners to create their own theories and embodies their educational values in their practice. Educational research is grounded in an action research approach as it embodies the creation and testing of educational theories through critical reflection.

Yet, grounded in a constructivist stance, the specificity of *collaborative enquiry* theory (Heron 1971, 1996; Reason and Rowan 1981) is to encourage the collective construction of meaning around a shared experience. This construction can encourage participants involved in this collaborative enquiry to reflect on and transform their individual practices and identities. The major idea of *collaborative enquiry* is to research with rather than on the participants. All participants are actively involved in the research decisions and in the construction of knowledge. Heron (1996) explains collaborative enquiry creates a pyramidal research cycle that involves four types of knowledge. Individual propositional knowledge is rooted in the individual experiences of participants. This knowledge influences their interpretations of the challenges they have to face in their practices. Practical knowledge is expressed in their individual competencies to challenge the situation they face. Experiential knowledge is gained through interaction with other participants. It becomes a shared presentational knowledge once participants succeed to verbalize it. Yet, the construction of such presentational knowledge requires a process of intellectual discovery and the distilling of the initial individual propositional knowledge through the formation of new shared metaphors and images. This co-creation of new meanings of the reality will also generate participants' new behaviors. Thereby, this collaborative construction supports personal development and the enhancement of some aspect of one's practice (Bray et al. 2000). It holds then an intrinsic potential to re-shape participants' practices and identities.

McIntyre (2008), uses the terminology of 'Participatory Action Research' (PAR) in order to define that action research methodology which involves "the active participation of researchers and participants in the co-construction of knowledge; the promotion of self and critical awareness that leads to individual, collective, and/or social change" (ix). As my research methodology, PAR is grounded in a critical stance. Yet, my previous chapter introduced Walker's (2001) work with an interdisciplinary collaborative

enquiry group of academics. My study has been largely influenced by her work. This methodology was used as a medium for change in academics' practices. My study involves a similar academic setting. In that sense, I prefer using the terminology 'collaborative enquiry' to define my action research methodology.

This analysis takes into consideration the dual dimension of creativity as enunciated formerly: cross-disciplinary creative process as a manifestation of a transformative power, and creative teaching practices as consequences of such creative power.

In the first section, the process and activities³⁴ of the CG are reviewed. Subsequently, I explain how my facilitation role changed throughout the group development process. In the two following sections, I raise the challenges entailed by this research methodology. However, I also argue that these challenges were an invaluable learning experience that enabled me to better understand group processes. From that learning experience, I highlight several hypotheses in order to explain the difficulties of such collaborative group process. In addition, I explain that the participants also gained a lot from this experience. They discovered other disciplinary practices and conceptions of creativity, and also learnt about group dynamics. I also draw a parallel between two collaborative processes: the one of the CG and the one of a theatre group in which I was involved during my doctoral studies. This comparison sheds light on the dynamics and challenges of creative group collaboration. The final section outlines how this contributed towards the final conceptual framework.

4.2. The CG process

The CG project was to establish a small discussion forum with academics across-disciplines to explore issues relating to creativity and teaching practices in various disciplinary contexts. Both perspectives of curriculum programme design and of nurturing creative dispositions amongst students were considered. As part of the process, participants were provided with a number of short readings (journal papers, materials from the UK's Imaginative Curriculum project and other relevant sources) and other materials such as video clips related to the topic of creativity. As I mentioned in the previous chapter, the key activity however was sharing of ideas as regards potential innovative learning and teaching approaches;

³⁴ See appendices IV and V: CG activities and participants summary tables according to the sessions

and the group was asked to consider summarising some of their discussions and developing a product for the 2010 Galway Symposium³⁵. The nature of the product such as a poster, a paper, a report, guidelines, video/audio programme, materials or an event, was up to the group. More precisely, the collaborative enquiry was initially based on a group of 10 colleagues from various disciplines, mainly from the sciences and arts disciplines. Two facilitators were present, Dr. Mac Labhrainn (Director of CELT) and I. Yet, the group was expected to be self-managed by the participants. The facilitators initially asked the group members to consider organising themselves as far as possible, including scheduling meetings.

The group activities took place over seven group sessions located in two different environments. Most of the sessions were held in the CELT room AM207, a training room in the Arts Millennium Building at NUI Galway. In Christmas 2010, a dinner session was held at the Harbour Hotel in the Galway city centre. Each group session consisted of a variable number of participants. The average number of participants for each session was about five in addition to the two facilitators. The most regular participants were from science-oriented departments (mathematics, chemistry and engineering). After each session, I made a written summary of the meeting that participants could access on the Blackboard³⁶ site created for the group. In addition, participants could find other materials on this site in order to think about creativity. Thus, the facilitators posted articles, videos, video clips interview on creativity, blogs area, and summary of each session regularly. This blackboard site was seen as a virtual place to encourage, beyond the meetings, discussion between participants. In addition, many emails were sent to the participants in order to organise the meetings. Numerous emails have been exchanged between them and I in order to clarify certain points concerning the group activities. In the following section, each session is reviewed in detail to provide a more precise insight of the group process and activities.

4.2.1. Group Sessions

First session

The first group session was held on the 12th of November 2009 in the

³⁵ See footnote 20

³⁶ See appendix VI: screenshots of Blackboard site for the CG

All the members of this group would routinely use Blackboard to support their mainstream teaching and hence would be familiar with the system.

CELT training room, AM207. Potential group activities were introduced during this session. Beforehand, a personal copy of the book "Explaining Creativity" (Sawyer 2006) had been sent to the participants (to their respective offices) as an introduction to the topic of creativity. The two facilitators inserted little cards in the book which stated: "Welcome to the Creativity Group, enjoy the reading!" Participants introduced themselves and started to discuss creativity within the HE context. Numerous pertinent questions were raised about the meaning of creativity and innovation according to academic disciplinary environments. I previously explained that the group was expected to be self-managed. In that sense, facilitators encouraged participants to come up with ideas on what they would like to do and how they would prefer to operate. The offer of some small scale funding to support their activities, if needed, was mentioned. In addition, under the initiative of Dr. Mac Labhrainn participants watched a film produced by the Huston School of Film as promotion of the NUI Galway biochemistry department. This film, as a product, was supposed to embody a collaborative group work between two disciplines, Film studies and biology. A debate emerged among participants on the interdisciplinary nature of such work. The notion of interdisciplinarity raised in that session would be a recurrent discussion theme throughout the following group meetings. Five participants from sciences and arts disciplines were present besides the two facilitators: two from the German department, one from the English department, one from the chemistry department and one from the mathematics department.

Second session

The second session took place on the 14th of December 2009. Dr. Mac Labhrainn and I decided to organize this session in an informal place before Christmas time. We chose to hold a dinner meeting at the Harbour Hotel in the Galway city centre. This dinner was convivial and rich in discussions around the meaning of creativity in relation to learning and teaching issues. Participants discussed their participation in the 2010 Galway Symposium on creativity in HE and the potential generation of a group product for this event. Five participants from the sciences and arts disciplines were present besides the two facilitators: two from the mathematics department, one from the chemistry department, one from the German department and one from the English department. In addition, one CELT guest visitor joined us. She was an academic and curriculum developer from the School of Education of the University of Iceland in

Reykjavik, Iceland. Her presence at the dinner was very beneficial to the group since she gave her own Icelandic perspective on creativity in relation to teaching. The participants could then compare Irish and Icelandic teaching practice experiences. In addition, this guest gave us some advice on potential group activities that we could develop for future sessions. She suggested one participant could bring a distinctive object, such as a beach ball into one of his or her classrooms that could travel to another participant's classroom after that, and so forth with all CG participants, as a symbol and inspirational starting point for cross-disciplinary work. They could then develop this work the way they wanted.

Third session

The third session took place back in the CELT room AM 207 on the 4th of February 2010. This session consisted in further discussions around the theme of creativity in terms of learning and teaching experiences. Suggestions on common group work were raised. For example, one academic encouraged participants from various disciplines to teach the same student group issues related to creativity and learning. Six participants from the sciences and the arts disciplines were present besides the two facilitators: two from the German department, two from the mathematics department, one from the chemistry department and one from the engineering department. At the end of the session, no definite common group work was planned. The participants were then asked to think over the week about creative suggestions to explore in order to set up an action plan on a common project at the end of the following session. From that third session, my facilitation approach became more directive as self-management appeared to be a challenge for the group participants who were asking for greater guidelines and directives.

Fourth session

The fourth session on the 12th of February 2010, also took place in the CELT room AM207. Three participants from science disciplines were present besides the two facilitators: one from the chemistry department and two from the mathematics department. The participants emphasised their difficulty in finding an idea of common group work around the theme of creativity that they felt that they could explore. The process of thinking beyond their disciplinary boundaries was recognized as a challenge for the group members. In addition, self-management became an issue for the

participants who asked the facilitators to give them concrete directives. Suggestions were however made on potential collective work that the group could undertake such as, for instance, teaching 'something' unfamiliar to students. Another suggestion was to work in pairs within the group between colleagues from two different disciplines, such as, for instance, chemistry and maths or German and maths. The aim here was to find 'something' that overlapped both subjects and to present it to the rest of the group. At that stage, participants used literally the terms 'something' as they had no clue of what they could explore together. Yet, after discussion, participants decided to bring, for the next session, one or two page articles from their own disciplines that they could share with the rest of the group. Their objective was to gain different disciplinary interpretations and understandings of their articles. From there, they thought they would be able to discern what type of group outcome they could generate. A work plan for the next session was then established. However, no definite action plan was set up as had been agreed at the end of the previous session.

Fifth session

The fifth session on the 23rd of February 2010 took place again in the CELT room. This session was a lunch seminar. Over this meeting, participants shared with the rest of the group academic articles from their own disciplines. Interesting debates emerged from this activity, notably around disciplinary language barriers between participants. Five participants were present besides the two facilitators: one from the Information Technology discipline within the Acadamh³⁷; two from the mathematics department, one from the engineering department and one from the chemistry department. The participant from the Acadamh department only joined the group at the fifth session because he only learnt about the existence of the CG in February 2010, during a CELT research group session. As both PhD students, we discussed about our research projects. He seemed very interested in the idea of taking part in an interdisciplinary collaborative process. As a result, I invited him to come along to our CG group sessions. He felt lost on the aims of the group at the beginning. As he mentions: "I was late joining the group (through my ignorance of its existence) and missed the first or four sessions, so I felt slightly out of the loop at the beginning on the aims of the group" (CG, Q2, A5). Yet, he rapidly engaged with other participants. As he follows: "During the sessions that I was

³⁷Acadamh na hOllscolaíochta Gaeilge is a centre that was established in 2004 at the National University of Ireland, Galway to notably support the development of Irish-medium courses and research activity. Acadamh works in co-operation with NUI, Galway departments and other universities to develop programmes that are provided through the medium of Irish. See: <http://www.nuigalway.ie/acadamh/>

involved in, I found it easy to engage with the other participants” (CG, Q2, A5). At the end of the session, the participants decided to try this type of exercise again. But they still felt lost and confused regarding what they were supposed to do. They asked the facilitators again for more directions and structured exercises.

Facing the group difficulty, the director of CELT and I and decided, for the next session, to take a radical change in our facilitation approach. We asked participants to prepare Pecha Kucha presentations³⁸ around the theme of creativity and academic inspiration for the next session. As requested, this type of exercise was highly structured, notably in terms of time management and presentation format. As the Pecha Kucha official website explains:

Pecha Kucha Night was devised in Tokyo in February 2003 as an event for young designers to meet, network, and show their work in public. It has turned into a massive celebration, with events happening in hundreds of cities around the world, inspiring creatives worldwide. Drawing its name from the Japanese term for the sound of "chit chat", it rests on a presentation format that is based on a simple idea: 20 images x 20 seconds. It's a format that makes presentations concise, and keeps things moving at a rapid pace³⁹.

Many people use Pecha Kucha Nights to present their latest creative projects in personal or humorous ways. It is also seen as a very efficient and innovative presentation format to use in educational environment and conferences⁴⁰. Dr. Mac Labhrainn and I thought that it could be interesting to try this presentation format with the group. It would give them the opportunity to experience a structured activity that they requested over the previous sessions. In addition, the idea behind this initiative was to ask the CG to organize or take part in one of the Pecha Kucha sessions, related to the concept of creativity and higher education, which would take place in the 2010 Galway Symposium.

Sixth session

The sixth session took place on the 29th of March 2010 in the CELT room AM207. Three participants from the sciences and arts disciplines were present: one from engineering, one from chemistry and one from English.

³⁸ See appendix VII : examples of slides of Pecha Kucha presentations prepared by the group participants

³⁹ See Official PechaKucha website: <http://www.pecha-kucha.org/>

⁴⁰ Ibid

Each of them gave a Pecha Kucha presentation. One participant from the IT in the Acadamh department could not be physically present but he sent us his Pecha Kucha presentation slides that we screened in class. Besides, one of the facilitators, Dr. Mac Labhrainn, also made a presentation. I observed and participated in the session. Another member of CELT, my PhD supervisor, Dr. Kelly Coate took part in the initiative. All presentations were linked to the theme of creativity and academic inspiration. Some participants related their personal experiences to their academic journeys. Other participants dealt with inspiring topics in relation to their disciplines, which influenced their academic lives. Participants very much enjoyed the exercise: it was met with humour and excitement. They agreed that the group could run a Pecha Kucha session during the Galway Symposium. The group mentioned the question “what's creativity in your discipline?” as the title for such a Pecha Kucha session.

Seventh session

Group members who could not attend the sixth session heard about the success of the first session and wanted to try this presentation exercise. We decided then to organise the seventh session on the 20th of May 2010 as a second Pecha Kucha run and final meeting before the Galway conference. Two presenters from the mathematics department were present. One of them made a presentation on her personal and academic journey. The other one decided to deal with a creative topic in relation to her discipline that inspires her academic life. Besides the two facilitators, three persons curious to attend a Pecha Kucha session were present: one academic from the Irish department, one from the Adult Education department and the educational developer of CELT. Between the sixth and the seventh session, time flew and academic work overloaded participants. It became extremely difficult to gather all group participants for the session. Yet, as the group enjoyed the Pecha Kucha exercise, Dr. Mac Labhrainn and I asked again participants whether they wanted to be involved in a Pecha Kucha session organised by CELT for the conference. Academics believed the best option for them was to give at the conference the same presentation they gave in front the group. Eventually, two participants of the first Pecha Kucha session (session 6) with the two from the second Pecha Kucha session (session 7) agreed to present their work at the Symposium (The first two⁴¹ were from the engineering department and IT in the Acadamh. The last two were from mathematics). The other participants

⁴¹ See footnote 38

decided to attend only the Symposium without presenting.

4.2.2. Galway symposium on creativity and Pecha Kucha presentations

Thus, four participants of the CG gave their Pecha Kucha presentations at the Galway symposium on creativity in June 2010. They explained the Pecha Kucha group activities gave them the incentive to present at the conference. As one participant claimed: "I was 'inspired' to do a Pecha Kucha run, which I only learnt about via the group" (CG, Q2, A2). Throughout the group process, they gained a better understanding of the topic of creativity in relation to teaching practices issues. The group activities provided participants with tools to think critically about various papers presented at Symposium. As one participant stated:

I attended the symposium much more attuned to exploring how creativity might work. And seeing creativity as the theme, I was a more critical judge on the various presentations in terms of how the presenter seemed to understand how creativity works and how the sessions seemed to be creative in themselves. In previous years, I saw the sessions as standalone and did not judge them on an overall theme (CG, Q2, A1).

4.2.3. Online questionnaires

Participants were asked to answer two online questionnaires⁴² designed in the framework of my study: (1) one introductory questionnaire before the group sessions started and (2) one closing questionnaire after the 2010 Galway Symposium. The introductory questionnaire gathered insights of initial participants' views on creativity related to their academic disciplinary context and of the reasons why they joined the CG. It aimed to start familiarising them with the issue of creativity in relation to higher education. Questions were asked, such as 'Within your own academic subject area, what is the role (in your opinion) of creativity?', 'Do you believe that creativity is more achievable in some disciplines rather than others; and if so, how?' or 'What do you hope to get out of this new group and its deliberations/activities?'. The closing questionnaire consisted in getting insight of participants' views on creativity related to their teaching approaches after their group adventure. I also wanted to know what they

⁴² See appendices VIII and IX: questionnaires 1 and 2 for CG participants

acquired from their experience within the CG and whether they wanted to potentially pursue this type of collaborative group work in the near future. Questions were asked, such as 'Thinking back to your initial expectations, how do you feel now about the "Creativity Group process/ outcome?', 'Do you think that this type of group work would have an impact on your academic practices?' or 'Would you like to potentially pursue further this type of collaborative group activity facilitated by CELT?'

4.2.4. Interview - a posteriori

Finally, one interview was undertaken with a group member from the chemistry department. I had not planned to carry out individual interviews with participants. I wanted to close the CG work with a questionnaire similar to the introductory one. Yet, I had the opportunity to interview one participant who was particularly engaged in the group process. Not only did this interview allow him to reflect on his experience within the group but also on his answers for the questionnaires. In the light of his own academic experience, he also wanted to discuss related topics such as disciplinary structural constraints, academic identities and imagination in relation to creativity.

During the interview, the participant gave surprisingly more positive feedback on what he thought had been achieved throughout the collaborative group sessions than what he said in the questionnaire. As I will develop in the following sections, the group process did not meet initial facilitators' and participants' expectations. Yet, the interview lasted more than two hours and turned to be a very insightful and rich interaction for both researcher and participant. It convinced me that my research was worthwhile doing since it was able to engage academics, such as this participant, in a deep and motivated self-reflection on their academic practices and experiences. After the interview, I received an email from the participant, which confirmed academics would value my research. As the participant claimed: "I gave you quite positive feedback yesterday on what I thought was achieved at the CG sessions. This surprised me as I was more positive yesterday than when completing the questionnaire and more positive than I was prior to engaging with the questions [...] I appreciate very much how my interaction with your research has enriched my experiences"(CG, E, A1)⁴³.

⁴³ Email from participant A1 (post CG and interview with academic 1)

4.3. Researcher position

4.3.1. The initial vision

My research approach was a combination of observation as I observed the group process and recorded notes of participation as I shared my research with participants and took part in the group discussions, and of facilitation as I mentioned earlier and as I will develop further. As regards facilitation, Sawyer (2007) states that the manager of a traditional team is responsible for breaking down the task and coordinating the team members. By contrast, the leader of an innovative team establishes creative spaces in which the group members can work. He also takes an active role in the group activities. As he claims: "Because innovative teams are self-managing, the leader does not have as much direct managerial work to do. Instead, leaders of innovation groups are active participants in the work; they function more like a peer than a boss" (Ibid:34). My facilitation role was then to create a creative space where the participants could engage in collaborative work. As described earlier, I provided the group with materials such as videos, articles, books, Blackboard resources in relation to different aspects of creativity, teaching and learning. However, I gave participants enough room to take initiative. A group discussion "should find its own dynamic level. The moderator's task is not to disturb the participants' own initiative but to create an open space in which the discussion keeps going first through the exchange of arguments" (Flick 2006:191). I conceived the group would define its own agenda and work structure.

Yet, the establishment of such a creative space would not have been possible without the fundamental support of CELT and its director, Dr. Mac Labhrainn. He played a facilitation role in the group process besides me. In addition, he actively took part in the group work. For instance, as I formerly mentioned, he gave a Pecha Kucha presentation on his own academic inspiration over the session 7. Together, we planned the potential resources needed. We posted numerous online materials on the Blackboard site that we set up for the group. We also initiated a discussion board where the participants could share their thoughts concerning creativity in relation to their academic experiences. I also posted numerous materials such as academics articles. In addition, participants enjoyed the video-clip interviews I made with six academics from NUI Galway and the Burren

College of Art on the meaning of creativity in their disciplinary contexts. As the previous chapter introduced, these videos aimed at inspiring the group participants and triggering discussion on the topic of creativity in HE. I also took part in the discussion board.

Furthermore, the collaborative relationship between the two facilitators has been crucial to support the group work. We regularly met in order to discuss the group process and plan the following sessions. In that sense, we engaged in weekly informal talks and emails. Dr. Mac Labhrainn also played a role of mentor to assist my group facilitation approach and my research work. I was feeling insecure in my initial management approach. I had no experience in group leadership. Besides, I felt intimidated because I, as a PhD student, had to run a group of academics. But my self-confidence in facilitating such a group has been boosted by his support. Participants' kindness also reassured me. Moreover, their enthusiasm and willingness to learn from their group experience confirmed my research could definitely contribute to their academic experiences. In that sense, I felt more legitimized in my facilitator role.

It is also important to point out the fundamental role played by CELT as an organisation. The resources and the technical support provided by CELT have been essential for the group formation and sustainability. CELT's teaching programme, the PgCert, provided us with a potential list of participants for our group project. I previously indicated many of the PgCert students had indicated to the CELT team that they wished to continue to explore curricular and teaching issues even if not signing up for more qualifications. In addition, those academics were already familiar with the CELT structure. Furthermore, CELT provided me with the room to organise the group meetings. The Centre also provided me with audio and video technical support to undertake my research. For example, I used an Olympus audio recorder and a video-camcorder to produce my video-clip interviews. In addition, as I indicated beforehand, the Backboard platform, managed by CELT, represented a potentially valuable medium to share materials with the group, to follow up discussion online and to keep the participants updated on the group process⁴⁴. CELT also supplied materials for the group such as the book "Explaining Creativity" (Sawyer 2006). Finally, the Centre provided sufficient financial resources to organise, for example one lunch seminar session for the session 5, and the restaurant dinner for the session 2.

⁴⁴ See appendix IV: CG activities summary table

4.3.2. Shift in the vision

The participants were encouraged to plan meeting sessions and manage their collaborative work. As an outcome, they could produce a potential output for the 2010 CELT Symposium. Nevertheless, I quickly realized that the participants were facing difficulties in terms of self-management. They were expecting that myself and Dr. Mac Labhrainn would tell them exactly what to do during the meetings and what to generate for the symposium. This phenomenon is intriguing since I had supposed that, as academics, they would easily handle self-management and engage as active participants. However, the opposite occurred. They experienced difficulties in taking spontaneous initiatives. The majority of the participants asked the facilitators to provide them with a more rigid structure of work. They felt lost and needed a defined agenda to orient their group work. Consequently, our facilitation role changed. The initial facilitators' initiative was expected to be eclipsed by the participants' enterprise over the group meetings. Yet, Dr. Mac Labhrainn and I remained constantly active in order to engage the group in activities at every session. The group process would have been impossible without the combination of continuing active participation and facilitation from both of us. Yet, we largely struggled to stimulate collaborative group work.

4.4. Challenges in practice

The literature (Walker 2001; Sawyer and DeZutter 2009) insists on the successful process and achievement of collaborative group work as research methodology rather than challenges. Yet, the CG, undertaken in the frame of my research, faced numerous difficulties in its collaborative work.

4.4.1. Lack of self-management and commitment

Sawyer and DeZutter (2009) suggest that successful collaborative groups are self-managed. Yet, participants of the CG faced difficulties in their self-management approach. As explained during the first meeting, academics were supposed to decide when they wanted to meet and what they wanted to do. Unfortunately, the CELT team had to chase the participants collectively or individually by email and by phone in order to organise every session. A core group of (mainly scientists) attended most of the sessions and their discussions largely influenced the group process. Yet, other

participants varied from one session to another. A full commitment to the group project was a challenge for academics. Time pressures were a constraint on their commitment. As one participant stated: “On reflection, I realise that one needs quality time and space to achieve something in this genre, and perhaps we as academics are beset by so many external factors that any hope of that nature is in danger of being crushed” (CG, Q2, A3).

4.4.2. Loose structure

Participants also had difficulties in defining by themselves what they could produce for the CELT Symposium. At the end of the third session, I realized, as mentioned previously, the participants were expecting concrete directives to orient their collaboration. They felt uncomfortable taking initiatives as regards their group work. A large number of participants mentioned that the absence of a formal group work agenda was a real challenge for them. For instance, one participant claimed: “I found it challenging that we had no real agenda from week to week [...] Here I am expressing a personal preference for working in a planned and structured way” (CG, Q2, A1). A feeling of frustration emerged among participants. They expected the facilitators to push them towards the exploration of creative ideas. In addition, they were disappointed for not having been able to engage in a creative process by themselves. As one participant stated: “I didn't enjoy not being able to push towards a Great Idea! [...] I found myself hoping for a collective 'spark' that would ignite something. I take full responsibility for that not happening, and to be honest, felt a wee bit disappointed in not finding it within myself to offer some kind of a creative spark at the meetings” (CG, Q2, A2).

This phenomenon raised a paradox. Throughout the interviews and focus groups I undertook prior to the set up of the CG, academics claimed institutional and disciplinary structures constrain their creative teaching experiences. The majority of academics involved in the CG also mentioned these constraints. Yet, in the case of the CG practice, the absence of structure seemed to be a major obstacle to the production of concrete creative work. The dichotomy between academic discourse on creativity in terms of teaching and academic practices is substantial. Structure seems to be necessary to enhance creative practices within the HE context.

4.4.3. Difficult interdisciplinary collaboration

The CG represents an interdisciplinary work environment that embodies an “undisciplined space between disciplines” (Dillon 2008:2), which transcends disciplinary boundaries. Yet, participants faced difficulties in conceiving the possibilities to ‘think beyond their disciplinary boundaries’, ‘explore the unknown’ and ‘do something different altogether’. For instance, during the fourth meeting, participants mentioned their difficulty in finding a common idea around the theme of creativity that they could explore from different disciplinary perspectives. As I already argued, one academic suggested participants could teach within unfamiliar disciplinary contexts. However, some participants reacted with fear to this proposition. The next chapter will further argue that academic disciplinary worlds are vectors of “social imaginary significations” (Castoriadis 2007) such as language or norms. Academics seem to be completely attached to these disciplinary significations because they make sense of their academic existences, practices and identities. Exploring new ideas beyond disciplinary boundaries means stepping outside these significations. Consequently, it puts into question who they are as academics. Academics’ relationship to their discipline seems to be a barrier to interdisciplinary collaborative work. During the fifth session, for instance, the issue of the disciplinary language barrier, notably between academics from humanities and sciences, emerged. Some participants shared academic articles from their disciplines with the group. The papers were vectors of written codes of communication, specific to their disciplines. Participants from other disciplines had trouble in comprehending these codes. As one of the participants claimed: “I haven’t been systematically exposed to humanities since school but it is really obscure for me, there might be a language barrier” (CG, A4).

Although participants feared stepping outside their disciplinary landmarks, they acknowledged interdisciplinary conversation on creativity in relation to their teaching practices could enrich their academic lives. They perceived such conversations as efficient tools to gain new perspectives on their own disciplines and would encourage them to step outside their traditional teaching practices and try more creative approaches. Then, despite participants’ lack of autonomy, the group initiated interdisciplinary discussions.

4.5. An attempt to comprehend such challenges

The transformative power of the CG was not achieved. Paradoxically, the limitations of the group collaboration became a real learning experience that encouraged me to try to comprehend such challenges. I reflected on the failures and the successes of the group process. I worked out several hypotheses, developed in this section, to explain the difficulties experienced by the group.

4.5.1. Collective identity

The absence of a single collective group identity may help explain participants' reactions. The next chapter will describe in more detail how academics have tied relationship with their disciplines. Disciplines represent moral frameworks in which their identities are shaped. Interdisciplinary groups represent new frameworks in which they have to orient themselves and to collaborate with colleagues with different identities. The formation of a collective group identity is necessary to work in such an environment. I understand collective identity as a set of individuals' sense of belonging to a group, in which the common identity derives from the combination of individual identities. This notion refers to the French sociologist Durkheim's (1933) collective consciousness formed by shared beliefs and moral attitudes, which operate as a unifying force within society. In the case of a collaborative activity, this force reinforces individuals' sense of belonging to the group. It enhances their legitimacy to act together as the group constitutes a new moral framework in which collective practices and identities (derived from the combination of individual practices and identities) make sense. Collective identity formation requires the reshaping of participants' initial individual identities. Their individual identities made sense in their respective disciplinary contexts but no longer in the interdisciplinary context.

Yet, in the case of the CG, only a weak collective identity was shaped. The significant language divides between participants revealed the absence of a collective identity. The next chapter will further develop how the function of language plays an important role in the process of identity formation. Language conveys meanings that only individuals from the same disciplinary community and with the same academic identity can share. These meanings make sense of individual identity. Over session 5, for instance, participants faced important difficulties in understanding academic papers from other disciplinary communities. The coexistence of remaining different disciplinary identities within the group became obvious throughout

the session. Further, not only can the strong language divide manifest the absence of a collective identity, but also be a source of such absence. From a discursive perspective, not only is collective identity formation rooted in shared beliefs and moral attitudes but also in conversation (Hardy et al. 2005). Yet, conversation requires a common language and “common constructions of key issues” (Ibid:10). In the case of the CG, conversation and common constructions of key issues were constrained as participants expressed themselves in their own disciplinary languages, foreign to their colleagues.

The constantly changing disciplinary nature of the group over the group meetings can also partly explain the challenge of collective identity formation. Four academics from sciences formed the core of the group. The other participants from other disciplines came only once or twice because of their work overload. Regular participants were not certain whether they would meet the same participants at every session. As one participant commented: “I found it challenging [...] There was so much variation in who turned up for our group sessions” (CG, Q2, A1).

Yet, the opposite argument can be put forward. As most of the participants were from the sciences, the non-heterogeneous nature of the group did not lead to a radical transformation of their academic identities. More frequent participation of academics from humanities into the group may have stimulated the rest of participants, mainly from sciences, to think beyond their academic disciplinary boundaries. They could have been encouraged to reshape their identities. A collective identity might have been formed and encouraged a concrete creative collaboration.

4.5.2. Group trust

More trust among the group could have had encouraged the participants to engage in an interdisciplinary collaboration. Sachs (2000) explains that an active trust is a fundamental element in collaborative group work. As she argues: “Trust, obligation and solidarity work together in complementary ways, based on relations of integrity, positive communication, reciprocity, mutuality and trust in expertise and processes to improve the groups’ problem-solving capacities” (Ibid in Walker 2001:196). Yet, this active trust takes time and, in the case of the CG, there was probably insufficient to fully reach a fully collaborative stage.

4.5.3. Time

Sawyer states that “we need to allow time for ideas to emerge” (Sawyer 2007:166); “you can’t rush since creativity requires that we encounter and internalize previous sparks of insight and it requires incubation time for those sparks to combine in the mind (Ibid:167). Yet, the CG ran from November 2009 to May 2010. Because of the timetabling constraints of participants’ teaching and other commitments, I could organise no more than seven sessions with the group. In addition, as the group initially aimed to develop a product for the June 2010 Galway Symposium⁴⁵, May 2010 was the ultimate deadline for the organisation of the CG meetings. This short period of time did not allow much space for creative ideas to emerge. In addition, the participants were fully engaged in teaching and assessment throughout this period, overlapping as it did with the academic semester.

4.5.4. Work structure balance

The dilemma of creativity constrained or facilitated by structure is a recurrent theme in research on creativity. According to Sawyer (2004, 2007, 2009, 2011), structure versus creativity is seen as a fundamental tension; yet we need to capture both creative practice and structure in the same theoretical framework to resolve the tension. Structure, however, can also arise from creative endeavours themselves as the process develops and takes form. To go further, the right balance in terms of work structure seems to be important in order to enhance creative collaboration. Sawyer illustrates his argument with, for instance, the case of theatre improvisation. Although participants have no clue of what is going to happen on stage as they do not have any predefined script, “improvisation groups have developed a wide variety of structures to scaffold their collaboratively emergent performances” (Sawyer 2004:16). A structure, not too rigid but not too loose, guides the collaboration but also enables collective outcomes, not defined in advance, to emerge. “Theatre performers improvise at the ‘edge of chaos’ which represents a critical balance for innovation: not too rigid to prevent emergent innovation, but not too loose to result in total chaos” (Sawyer 2007:169).

In the case of the CG project, I consider that the right balance was not achieved, as the group did not produce a creative common outcome. I

⁴⁵ See footnote 20

initially believed that a loose structure would allow participants, entirely free in their actions, to generate a creative product for the 2010 Galway conference. Nevertheless, the majority of the participants did not feel comfortable in such an unconstrained work environment and asked for more supervision. One participant however claimed that the missing element in the group process was the absence of opportunity to self-reflect on what participants were doing rather than the absence of rigid work structure. He believed that participants can use self-reflection allied with their imagination to generate a flexible structure needed to enhance a creative collaboration process. As he argued: “For creativity we need a dynamic structure (i.e. a changing adaptable structure), and feed-forward-feedback cycles (i.e. imagining and then attempting to realise the imaginary) are a way of generating this ‘unstructured structure’”⁴⁶ (CG, E, A1).

4.5.5. Academic priorities

Academic workload outside the group project was also a fundamental element in the difficulty they reported in committing fully to the group. Most participants perceived the collaborative group experience as beneficial but not fundamental to their academic lives and careers. As I already mentioned, the national financial crisis has involved a shift in managerial priorities within the Irish HE context. This was a period in which a recruitment embargo led to the non-replacement of staff and increasing teaching loads. Consequently, the academic year 2009-2010 at NUI Galway was extremely intensive for staff. It appears clearly that the CG, as an optional activity, was not their priority.

4.5.6. Informal meeting places

Most of the sessions took place in the CELT room AM207 (apart from, the dinner session). Hence, the meetings were initially seen as ‘formal’ and set up in a very conventional space. Yet, informal social space contexts seem to allow creativity more than formal spaces. Jackson (private communication 2010)⁴⁷ suggested that “it is from social situations which allow people to get to know each other that things can be developed and that creativity emerges”. As he pursues: “It is in that type of structure in which socialisation takes place that people are willing to give so much more

⁴⁶ Email from participant A1 (post CG and interview with academic 1)

⁴⁷ Recorded (by agreement) conversation during dinner with keynote speakers at Galway Symposium

than they usually do". In the case of CG, the only moment of socialization occurred at the dinner table of the Harbour Hotel. More informal social meetings at the outset may have been beneficial to enhance creative collaboration amongst participants.

4.5.7. 'Wonder' and 'the lived-theory-in-practice' (Hansen 2008)

Hansen (2008), who has researched the concept of knowledge, describes the 'state of wonder' as the state where the person "is very confused and senses that his whole way of understanding the world and himself as a professional as well as a person has come into a movement, has changed and put into question, but he does not know in what direction and why" (10). He argues that 'wonder' leads to existential questions and self-transformation in terms of professional practices since this person is "standing in the openness putting his knowledge in play or forced to put his secure knowledge in play and in question" (Ibid:10). However, a previous stage is necessary to this 'state of wonder'. The person needs to connect to his lived experience in a critical way. It helps him to find his own personal questions and formulations of the problem that he wants to investigate. As Hansen claims:

To connect to this more personal motivated questioning is important. If this connection is not made, the participants will switch to an already well-known theory-channel instead of real dialogue between lived experience and theory. Again, this is for many participants an unfamiliar way of relating to theory, because we are so used to go the other way around. That is, first learning scientific theories and then using these theories on practice [...] We ideally learn to go the other way around and to reflect on, what we might call "*the lived theory-in-practice*", which comes to surface through a reflection from the lived experience (Ibid:6).

In the case of the CG, participants did not reach, in Hansen's terms, the 'state of wonder' leading to self-transformation in terms of academic practices. The work of connection to participants' lived experiences has not been explored enough within the group. Only the two Pecha Kucha sessions organised on their academic inspiration required participants to connect with their lived personal and professional experiences. Nevertheless, I believed that these sessions were planned too late in the group work schedule. They should have taken place at the beginning of the process and encouraged participants to question their knowledge, academic existences and identities, and nurture openness to collaboration

and creative ideas. Instead, participants concentrated on what they knew in relation to their disciplinary environment. Their behaviour did not lead them to reflect critically on their wider academic lives. They thought they would learn, in that group, theories about creativity that they could apply to their academic practices. To the question 'what do you hope to get out from this new group and its deliberation?' (CG, Q1), one participant answered: "I hope to learn of recent and current 'scholarly' perspectives on the issue of creativity in HE" (CG, Q1, A2); another: "New ideas to enhance my creativity in the classroom" (CG, Q1, A10). They felt lost when they realized that the group work was not based on such a "theory-channel". The facilitators should have started with encouraging participants to connect further to their lived academic experiences in relation to the issue of creativity and teaching. They could have been encouraged to critically self-reflect on their practices towards possible creative collaboration.

4.6. Learning experience for participants

The group process was also a learning experience for the academics involved in my study. Firstly, the interdisciplinary character of the group did, ultimately, encourage them to discuss and discover the perspectives of colleagues from quite different academic domains. They perceived the CG as one of the unique spaces within NUI Galway where they could meet colleagues from different disciplines. As one participant claimed: "I always enjoyed the discussions" (CG, Q2, A4). In addition, they learnt about their colleagues' understanding of creativity. As one participant argued: "I think creativity can be viewed quite differently across disciplines. It gave me a greater appreciation of the various ways that creativity is perceived (CG, Q2, A5). Furthermore, they reported the material provided to them was useful to grasp the concept of creativity. They began to perceive the construction of a shared cross-disciplinary understanding of creativity as possible. As one participant argued:

The most revealing and thought-provoking things came from materials external to the group - Sawyer's book and the video interviews. I was almost shocked that the poets/poetry scholars interviewed (L de Paor and an American?) pretty much echoed what I had begun to think about creativity in engineering - the paradoxical need to respect and study discipline, structure and past masters, as a precondition for creativity. This was a crossing of disciplinary boundaries (CG, Q2, A4).

As mentioned already, they also discovered a new type of group activity -

the Pecha Kucha presentations - that they very much enjoyed. To the question 'which activities did you enjoy most? Which activities did you enjoy least?', one participant, for example, answered: "I enjoyed most the Pecha Kucha activity. There was really nothing I didn't enjoy" (CG, Q2, A4). Moreover, the relevance of the group sessions to building towards the Symposium was recognised. As one participant stated: "Some of the sessions at the CELT conference helped crystallize for me what we were about during the year. Keith Sawyer and Timothy Emlyn Jones I thought understood how to do creativity and their presentations gave me insight into our process" (CG, Q2, A1).

This same person also felt more inclined to critically reflect on creative group processes within classrooms, on the relationship between structure and knowledge creation. As one participant mentioned:

From the experience, I gained an understanding of how form (structure) and dynamic processes must interact to construct newness. In our case this was the construction of an understanding of creativity. In my classes I am endeavouring to help the students to develop new understandings all the time. From our sessions I have a sense of the fragility of this process especially if I want to go beyond knowledge transmission (forming, structuring). I now have many questions on how to have a balance between structure and dynamic processes in class that allows the possibility for the student to construct new ideas (CG, Q2, A1).

4.7. A parallel with a creative collaboration in a theatre group

Over approximately the same timeframe of the work with the CG, I also participated in the work of a local theatre group. It is highly instructive to counterpoise both these experiences, exploring parallels and divergences in the different forms of creative engagement. Such creative processes as drama and performance hold an intrinsic transformative power, enabling individuals to challenge and to become emancipated from their oppressive "limit-situations" (Freire 1996:83).

4.7.1. Creative theatre process as a transformative force towards emancipation

As Chapter 1 outlined, Castoriadis (2007) sees Ancient Greek democracy as a tragic regime that holds a dual dimension: humans' knowledge of death and humans' capacity of "making-doing/creating" (10). To him, this

regime is “the most brilliant demonstration of the possibility of transforming this antinomy into a source of creativity” (ibid:10) as self-limitation encourages transformation and re-creation. Some authors (Neelands 2009; McGrath 2002), argue that the relevance of tragedy is that it “provides the most fecund interface between democracy and theatre” (McGrath 2002:134). Neelands (2009) explains: “Theatre in the form of tragedy also served the political purpose of revealing to the polis its limitations as well as its possibilities” (185). Consequently, I suggest that theatre is a potential source of creativity. Individual self-transformation occurs in the theatre space. Their resistance against, and emancipation from, oppressive situations and a drive towards autonomy are key principles. Kershaw’s (1998) research interests focus on the relationship between theatre and freedom within our postmodern society. He argues: “Drama and theatre can significantly contribute to the collective and individual creation of autonomous subjects especially through an engagement with systems of formalised power in an effort to create radical freedom” (Ibid:81). In that sense, theatre is a liberatory power grounded in a critical pedagogy stance. Grumet (1978) argues that “theatre offers us a way of working that permits us to realize our freedom, showing us how we may fill the empty forms that we receive with our own experience of them and thus transform them and ourselves. It is through our responses to our concrete situation that we realize our freedom” (44).

Specific forms of theatre such as the Brazilian director Boal’s (1979) ‘Theatre of the Oppressed’ are explicitly connected to Freire’s (1996) work on the ‘Pedagogy of the Oppressed’. This form of theatre invites the audience to provide new suggestions on stage through dialogue with actors. It is largely based on the idea that interactions between human beings are grassroots for activism and resistance against oppression. Theatre of the oppressed is improvisational and non-scripted, where actors and audience collaboratively explore how oppressions arise and how they can be overcome. By extension, it may be argued that any improvisational theatre process can meet the goals of the critical pedagogy project as it engenders participants’ resistance against “limit-situations” (Freire 1996:83) and for emancipation and autonomy. Kanellopoulos (2007), who has researched and written about the relationship between the concept of autonomy and music improvisation, states: “Improvisation creates a vision of being together that comes close to Castoriadis’s notion of autonomous society” (114). One major aspect of improvisational theatre is its “liberational function of communicative action” (Ibid:115) that enables

participants to face undetermined and unpredictable situations. The combination of communication and action supports possibilities of change in participants to challenge the constraining situations they can experience. Improvisational theatre generates an “empowerment space” (Aitken 2009:505) for participants, created by the conscious renegotiation of power relations between them. Hudson (2009) argues that the unpredictability of the situations provides a “way of transcending the obstacles of innate endowment and social organization to create new meaning through communicative practice” (273) and that “predictability inevitably reduces the potential of creating new meaning between participants” (300). In addition, improvisational theatre facilitates identity changes that are vectors of autonomy and freedom. As she pursues: “The improvisational opening of the self to others in meaningful participation is a practice of freedom precisely because it distances the self from the boundaries of dominant description” (Ibid:303). Kanellopoulos (2007) also puts forward: “Improvisation entails a particular approach to and conception of identity: willingness to forge one’s identity through actions that do not aim at demonstrating what one has already gained, but rather at surrendering to the openness of discovery” (112).

Interdisciplinary collaborative group work seems to have similar potentialities in terms of communication, allied with action, towards identity transformation, individual autonomy and liberation from oppressive situations. Both creative processes resulting from interdisciplinary collaborative group work and theatre improvisational group work hold an intrinsic transformative power that could potentially lead to change of practices.

In the theatre group experience, many of the same issues emerged, such as, for example, the tension between creativity and structure.

4.7.2. The group dynamic

In September 2009, James Flemming, founder of *Colours Street Theatre Company* (established in 2000 in Galway) asked me if I wanted to take in part his new production *Colours the opera*. He believed my training in lyrical singing would be an asset for the group. This play would be performed at the Muscailt Arts festival of NUI Galway on the 10th and 11th of February 2010. I observed the first rehearsal that took place at the beginning of September 2009 in the Bank of Ireland theatre on NUI Galway Campus. I

immediately went on stage with the group and enjoyed the experience so I decided that I would get involved in that creative process even though I had no idea what to expect in future and which direction the group would take. It was my first attempt at theatre performance. Whilst I am trained as a musician and dancer, and used to be on stage, I did not know anything about performing as an actor. This theatre group was very unconventional. Body language was prior to speech language in the work process. Improvisation was prior to reciting. Finally, performers could challenge the work structure, the content of the rehearsals and the final planned performance. James, the director, gave space to his performers to question the exercises they had to undertake and suggest new ideas. He also offered participants the possibility of expressing their feelings and emotions in response to the group process. As a director, he always had the final say on the group work but he considered with attention his performers' suggestions and reactions.

From September to December, the rehearsal sessions were divided in two parts: warming up followed by a series of exercises facilitated by the director. Those exercises were a result of a combination of two mechanisms: general guidance from the director but also the possibility for performers to give their opinions on the structure and the content, and suggest modifications. He used this to create a loose script for the final planned performance. The structure of the play consisted of four parts dealing with the birth, life, death and resurrection of colours. The script was mainly based on songs, small monologues, body gestures and spatial arrangements. Yet, the structure and the script were unconstrained enough to give performers and the director opportunities for changes after practice and dialogue among the group. The interaction between group members and the director, who was also a performer in the play, embodied a crucial dimension of the group dynamic (It also represented one of the most enjoyable experiences I had throughout the group process). The rehearsal exercises forced us to work either in pairs, small groups or with the whole group. The group interplay encouraged each participant to be fully engaged in that theatre experience. The philosophical approach, inspired by the director, was that each individuality could be expressed within the group; but at the same time, all individualities belonging to a collective identity. The director defined the style of his theatre work as 'Bounce Theatre'. As he claimed: "This is one process which begins when ideas are thrown around and people have the drive in them to do a performance [...]. At this stage, the only term I can come up with to define this type of theatre is *Bounce*

Theatre. Bounce represents people bouncing off one another for ideas; everyone has a different style of bounce in their movement” (James Flemming 2010)⁴⁸. Everybody had then a major place in the group as the 'bouncing' process of one member on another one influenced the work dynamic. In addition, informal group meetings reinforced the group interaction. After each rehearsal, participants socialised in gatherings that greatly helped us to get to know each other, and to consolidate our group cohesion and collective identity.

4.7.3. Structure and creativity emergence

Thus, from the first day of rehearsal until the very last moment before the play, performers experienced a flexible work structure in which they could express themselves. Some felt disoriented in that type of environment, and perceived the group process as not sufficiently structured. The director's expectations in terms of performance outcome were not predetermined. His first ambition was to enhance a creative collaboration process rather than to generate a creative product. Some participants claimed that they were not feeling totally comfortable in that loose work environment in which the director did not provide them with a determined script for the performance. They were afraid of not being creative performers without knowing, in advance, the finality of this theatre experience. Consequently, they dropped out of the group. Yet, the rest (including me) believed that the group outcome was not fundamentally important. Being part of this creative collaboration for its own stake was such an enjoyable and fulfilling experience that we did not feel that our creativity was affected. I am arguing here that the theatre group experience raised the tension between creativity and structure. Some performers could not conceive being involved in a project without being fully guided by the director. They needed a structured framework in order to become creative performers. On the other hand, other performers were delighted to explore improvisation at every session without knowing what type of performance would emerge from the group process. They did not need any rigid framework to develop creative theatre practices.

Sawyer (2009) argues that structure versus creativity is a fundamental tension, as discussed earlier, repeatedly highlighted in research on creativity. Structure, which is static, represents a constraint for creative agency. Yet, he argues that structure does not have only negative effects

⁴⁸ Email from James Fleming, defining his theatre work, June 2010.

on the agent's creative process. To him, structure is "the stability, the old which emerges from the new, from creativity" (Ibid). It is then difficult to oppose those two concepts. Creativity does not occur within total free-willing and unstructured contexts. Rather, constraints are a crucial element to the emergence of creativity.

This tension can arise in both arts performance (theatre, jazz) and classroom performance, referred to as 'disciplined improvisation' by Sawyer (2004, 2011). He argues that this is a dual process involving planning and improvisation (Sawyer 2004, 2011). In both contexts, the overall global structure leaves enough room for improvisation to emerge. Sawyer (2004) compares his experience of theatre performance improvisation with discussion improvisation within classroom. As he mentions:

These performances emerge from unpredictable and unscripted dialogue, on stage and in front of an audience. In a similar way, an effective classroom discussion emerges from classroom discourse, and is not scripted by the lesson plan or by the teacher's predetermined agenda (13).

He agrees that "disciplined improvisation seems best suited for unstructured tasks with no clear-cut procedures or answers when effective interaction depends on a mutual exchange process in which ideas, hypotheses, strategies, and speculations are shared" (Ibid:17).

I believe my own theatre experience refers to the notion of disciplined improvisation. The performance was already prepared when actors went on stage. Yet, this performance in itself resulted from an improvisation process, based on unstructured interaction between participants, rather than a determined script. In that sense, this type of collaboration involved a phenomenon of 'distributed creativity' (Sawyer 2009) in the group. This is where a group of individuals generate collectively a shared creative product.

Sawyer refers to theatre or classroom discussion improvisations as "collaborative emergence" (Sawyer 2004:13). As he argues: "Both classroom discussion and theatre improvisations are *emergent* because the outcome cannot be predicted in advance, and they are *collaborative* because no single participant can control what emerges; the outcome is collectively determined by all participants" (Sawyer 2004:13). Sawyer and Dezutter (2009) explain such a collaborative emergence requires four elements:

Collaborative emergence is more likely to be found as a group becomes more aligned with the following 4 characteristics: the activity has an unpredictable outcome, rather than a scripted, known endpoint; there is moment-to-moment contingency: each person's action depends on the one just before; the interactional effect of any given action can be changed by the subsequent actions of other participants; the process is collaborative, with each participant contributing equally (82).

The CG enquiry also revealed the tension between structure and creativity. Participants perceived the loose work structure as a challenge.

4.7.4. Collective identity and creativity emergence

Structural challenges are certainly an important issue in terms of creativity emergence. Yet, the issue of collective identity is also at stake. In the case of my theatre group, each participant got to know each other informally. Over time, participants' sense of belonging to a united group became stronger and the group identity was reinforced. In the case of the CG, it was apparent that group collaboration had difficulty in emerging. The disciplinary language barrier between participants inhibited the depth of their interactions.

4.8. Towards a conceptualisation of creativity constraints on teaching in HE

In retrospect, the work process of the CG did not develop the way it was initially imagined. Limited group collaboration was initiated as the absence of a final common product demonstrates. The project remained ultimately a cross-disciplinary discussion. Yet, although the path taken by the group was strewn with obstacles, this journey was an authentic learning experience, for most of those involved, including the facilitator.

This CG experience confirmed academics are subjected to real external pressures such as time, but that they are also confined in their disciplinary boundaries. Comparing with the theatre group highlighted the importance to consider the relationship between identity and disciplinary power in my conceptualisation of constraints on creativity teaching. The next chapter develops such conceptualisation.

Chapter 5: Theoretical framework

Conceptualisation of constraints on creative teaching

5.1. Introduction

The social world is complex and theories enable the researcher to simplify it. Consequently, theoretical frameworks allow the researcher to construct his or her views on the research object (Ashwin 2012a). Chapter 4 already highlighted how my framework has emerged from my research practice and how its development was not a “once-for-all’ affair” (Ibid:142).

Trowler (2012) argues that one of the functions of theory is explanation. Yet, he also explains that theory can be seen as creative and emancipatory. In that sense, not only does theory aim to describe the world but also seeks to change it, notably through transforming people’s attitudes and practices. As Ball (1995) claims: “Theory is a vehicle for ‘thinking otherwise’, it is a platform for ‘outrageous hypotheses’ and ‘unleashing criticism’ [...] The purpose of such theory is to de-familiarise present practice and categories, to make them seem less self-evident and necessary, and to open up spaces for the invention of new forms of experience”(266). It was my intention that an appropriate theoretical framework for the current research holds such a dual function of explanation and emancipation.

In that sense, it is largely influenced by the critical research paradigm. This chapter draws mainly on Foucault’s (1975) conception of the disciplinary power, Castoriadis’s (1987, 1994, 2007) theory of ‘social imaginary’ and Taylor’s (1989) definition of identity. These three theories are particularly relevant to the critical research paradigm since they develop a conception of the social reality as a construction emerging from the interactions between humans and the world within a socio-historical context. Subjects’ empowerment to resist the oppressive environment that surrounds them towards emancipation, is revealed possible. Individuals require an ability to

self-reflect on, disengage from, and transform their common understandings of the world. The French philosopher and social theorist Foucault (1975), who is particularly most well-known for his critical studies of social institutions, believes that coercive relationships do not exist without the freedom of individuals to act on them. The Canadian philosopher Taylor (1989), who has researched and written about the philosophical-historical making of modern identity in western societies, highlights the possibility of self-remaking in terms of identity understanding. Finally, Castoriadis (2007) advocates individual and social capacities of self-transformation leading towards autonomy and resistance against pre-determination.

Ashwin (2008, 2012a) argues for an account using structure and agency theory to accurately conceptualise teaching and learning activities within HE. Relying solely on individual accounts does not give a complete explanation of the situation. Individuals are influenced by the structure that surrounds them. As a result, Aswhin (2008) argues: “Explanations of the educational significance of TLA⁴⁹ need to focus on *both* individuals’ intentions and on the ways in which these intentions are structured by institutions and wider social structures”(152). To him, this type of research approach involves a conceptualisation of teaching and learning activities that relates to the relationship between different levels of analysis: research participants (students and academics), their identities, and the structural contexts in which they perform. He also adds another level of analysis that is the ‘cognitive unconscious’, referring to being unaware of the influence of agentic and structural factors on personal interpretations of particular situations:

If one accepts that social structures and agentic factors can help to shape the ‘cognitive unconscious’, then this sole reliance on the accounts given by academics and students becomes extremely problematic. If respondents are not aware of the impact of structural and agentic factors on their experience of TLA interactions then the explanations that are generated from these accounts are likely to significantly underestimate their influence (Ibid:155).

In that respect, this framework takes into account the agentic and structural dimension to develop a more complete explanation of creativity and its constraints on teaching than previous research that mostly looked at

⁴⁹ Referring to Teaching, Learning and Assessment activities

individual's accounts of creativity within HE (Jackson et al 2006; Kleiman 2007). Explication of such influences may then provide a platform on which transformative and emancipatory actions, towards more creative practices, can be developed.

However, I would like to highlight once more that my theoretical, as much as my empirical, approaches are grounded in the specific context of my study at NUI Galway. My research does not aim to generalise academics' experiences outside this particular context. It is also important to notice that my research investigates academic practices of teaching and not research practices. Academics involved in my study have however mentioned their research approaches. They consider the research process as a creative act since they use imagination, praxis and critical thinking to create new and original knowledge in their respective fields. I acknowledge here that disciplinary specialisation does not counter-act creativity in terms of research. Sawyer (2006) argues that knowledge mastery and expertise is essential to the emergence of creativity that contradicts the romantic myth of creativity as a result of a divine inspiration. My research tries to understand the rationale underlying the constraints around creative teaching experiences rather than in research processes. The contradiction between teaching and research experiences as regards creativity can lie in the traditional functions allocated to teaching and research. There is a general assumption that research is to *produce* knowledge whereas teaching is to *reproduce* knowledge in the sense that knowledge is either created or reproduced. As Lave (2008) states: "it is elaborated in notions that teaching is a matter of reproducing knowledge, and that creativity cannot be taught, that learning is a matter of internalizing existing knowledge, and reproducing culture (produced somewhere else)" (12). Yet, beyond this general belief, she argues that the polarization between knowledge production and knowledge reproduction is questionable as the creation of knowledge requires learning that is part of everyday life (Ibid). To her, knowledge is not the result of an abstract act disconnected from the social life. It is the product of a creative but also reproductive participative act in which everybody is involved (Ibid). Consequently, creativity is not contradictory to learning or teaching. Therefore, it is crucial to understand the real nature of the constraints around creative teaching.

5.2. Disciplinary power constraints on creative teaching practices

5.2.1. Historical creation of disciplinary power

In order to examine in detail the nature of the power relationships between academics and their disciplinary structures, it is imperative, firstly, to have a better understanding of the origins and the nature of disciplinary power.

Foucault (1975)⁵⁰ explores the various ways in which, during the 17th and 18th centuries, the human body became an object of manipulation and control through the creation of institutions, such as hospitals, asylums, prisons, factories and schools. He goes back to the advent of the penal “Modern Justice” (Ibid: 29) system where corporal punishments disappeared in favour of less harsh sentences. At first sight, it seems that the body was no longer the direct object of the punitive process, changing the way the body was politically invested. Punitive power no longer acted through excessive rituals of sufferings exercised on the body but rather through real judicial mechanisms and representations, which affected the mind. Yet, Foucault questions whether this shift definitely led towards the judicial age of incorporeal chastisement. These judicial transformations involved the creation of social institutions. A specific management system was implemented to regulate sentences along with new body coercion processes. This coercive model took shape mainly in institutions such as prisons but also schools. It aimed to manipulate, train, subjugate and transform the body as a disciplined and docile object of power, through various methods, and elaborate control. Foucault calls these methods “disciplines” (Ibid:138). According to him, the advent of disciplines resulted in the art of increasing the weight of the body's subjection while creating a relationship mechanism, which made the individual docile and disciplined. A real “anatomie politique” (ibid:138) emerged from these disciplines. These disciplinary technologies had function to forge, in the most economical and rational ways possible, a “docile body that may be subjected, used, transformed and improved” (ibid:138).

This docile body became then an object of social control. Foucault sees in the imaginative architectural technology of surveillance called the ‘Panopticon’⁵¹, the archetype of social control, which can be applied to institutions such as prisons or schools. This invention is formed of a peripheral building and a central tower with large windows opened towards the belt. The peripheral building is divided into cells. These cells have two

⁵⁰ I read ‘Discipline and Punish’ in French. This part results in my personal translation of the French version. Some of Foucault’s terms initially written in French are paraphrased in English.

⁵¹ Bentham’s invention (18th Century): see Bentham, J. (1843). Panopticon versus New South Wales. London, Bowring

windows, one opened towards the central tower, the other one opened towards the exterior, which allows the light to pass across the cells. One supervisor is placed inside the tower and the prisoners are in the cells. All cells are individualized and can be permanently viewed. Each individual is then locked up in one cell and cannot communicate with neighbours. Yet, the prisoner can be seen at any time by the supervisor. The latter can then control different prisoners at the same time. This architectural technology exercises a real coercion on the body. Each individual of each cell is reduced as a simple body, which cannot move out of the cell, and escape from that prison. Prisoners cannot move without the supervisor's permission. Foucault suggests similar principles of surveillance can be applied in the classroom context. Each student has his or her own individualized seat and cannot move without the teacher's permission.

However, the question of coercion transcends spatial issues. The disciplinary power generates a real subjection of the individual. The panopticon principle of disciplinary power results in the prisoner's visibility. Yet, the supervisor can constantly watch the prisoner or student, who cannot verify whether they actually are being watched. Through awareness of a possible surveillance, the prisoner becomes docile. It is undeniable that the fictive relationship between the prisoner and the supervisor eliminates the necessity of physical violence. Instead, the prisoner's auto-constraint and auto-subjection is generated. The prisoner will register this power-domination and "becomes the principle of his own subjection" (Ibid:204). Foucault stresses how the acceptance of this auto-subjection involves an inevitable "victory" (Ibid) of the dominant disciplinary power, creating a real situation of domination/subordination with the prisoner.

5.2.2. Disciplinary structural constraints on creative teaching practices

In the context of higher education, it can be argued that academic disciplines represent disciplinary power structures, which can subjugate the academics who work in them. Other scholars, such as Ball (1990), have used Foucault's theoretical concept of disciplinary power in relation to the disciplines within the educational environment. The emergence of disciplines within universities embodies Foucault's modern conception of disciplinary power, which is supported by three mechanisms: capacity, communication and power. The deployment of technical capacities, the game of communications and the relationships of power are fundamental

mechanisms, which enlarge the sense of the word “disciplines” (Foucault 1982 in Faubion 1994:339). More precisely, in each academic department, technical capacities such as the disposal of space and material resources are an issue. In addition, acquisition of practices or behaviour is ensured via questions, answers, orders and coded signs of obedience. The whole ensemble represents regulated communications mechanisms. In addition, a series of power processes, such as “enclosure, surveillance, reward and punishment, pyramidal hierarchy” (Foucault 1982 in Faubion 1994:339) are developed. These mechanisms will, then, limit academics’ room to innovate and develop alternative, creative teaching practices.

Not only does disciplinary structure constrain academics in their teaching, but also academics themselves via their actions (i.e. reproduction of practices) reaffirm their coercion. Disciplinary power subjugates individuals. Foucault goes beyond the conception of power as a form of domination or exploitation since he explores the notion of subjection. According to him, the notion of subject holds two meanings: “Subject to someone else by control and dependence, and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power that subjugates and makes subject to” (Foucault 1982 in Faubion 1994:331).

Giddens (1984), who has intensively worked on the relationship between agency and structure, argues that changes in actions by agents are generated by self-reflection. This self-reflection is possible through self-knowledge. Yet, reflexivity is not easy, as intrinsic human nature tends to look for security (Ibid). In that sense, individuals will replicate practices in order to maintain procedures, which seem safe. Self-reflection is not only difficult because of individuals’ tendencies for security but because actions are originally physical actions, rooted in individuals’ bodies, where Foucault describes that individuals’ subjection takes place. The body is controlled but becomes actively subject to domination through individuals’ repetition of actions. Domination becomes no longer forced but made by the subject. Consequently, not only is the individual subjected to the disciplinary power, but he or she also becomes the actor of that disciplinary power. In that sense, not only does Foucault also emphasise the structural dimension of disciplinary power; but also the “agentic dimension of the discipline” (Fanghanel 2009:201).

Following Foucault’s argument, disciplines in the context of higher education are therefore the product of the interrelation between the

disciplinary structure and academics themselves. Both are affecting each other. In the same vein, Trowler's (2009) research on academic cultures in universities, suggests that academic identities are fostered within disciplinary spaces. This sociological dimension is crucial in the formation of academic identities. Not only are disciplinary environments seats of knowledge and practices, but also active social spaces. Becher and Trowler (2001) state that: "The relationship, then, involves a mutually dependent interplay of, on the one hand, the structural force of the epistemological character of disciplines that conditions culture and, on the other, the agentic capacity of individual and groups for autonomous action, including interpretative acts" (23).

The notion of freedom reinforces Foucault's argument on the active agentic role in the disciplinary power. As he argues: "Power is exercised only over free subjects and only insofar as they are free" (Foucault 1982 in Faubion 1994:342). In that sense, the subject must have a room to manoeuvre in terms of action. Otherwise, the power relationship cannot exist. As he follows: "Slavery is not a power relationship when a man is in chains, only when he has some possible mobility, even a chance of escape" (Foucault 1982 in Faubion 1994:342). In the university context, the constraining disciplinary power relationship between disciplines and academics is similarly evident in the degree of freedom academics have to change this relationship.

However, it is important to highlight that many scholars such as the German sociologist and philosopher Habermas (1981, 1987) have criticized Foucault's definition of disciplinary power. Habermas (1981, 1987), whose work focuses notably on power, democracy and social action, believes that the interactive relationship between freedom and power put forward by Foucault is inaccurate. To him, there is a rigorous separation of the notions of freedom and power. In a similar vein, a body of critical feminist work (Fraser 1989; Sawicki 1994, 1998) strongly objects to Foucault's conception of subjectivity and power. From this perspective, Foucault established subjectivity as a creation of disciplinary power, which does not leave any room for the subject to resist power. Yet, the American post-structuralist philosopher Butler (2002), whose research interests focus on gender-identity and sexuality, suggests self-transformation is at the core of Foucault's work on freedom and disciplinary power. In that sense, critical practice, intrinsically connected to self-transformation, enables the subject to defeat power. As I will develop in the following section, critical teaching

practice within HE and self-transformation in terms of academic identity may be at the core of the academics' ability to break free from disciplinary power.

5.3. Academic identity relationship with the disciplinary power

Much has been published (e.g. Klein 1996; Miell and Littleton 2004; Chandramohan and Fallows 2009) on interdisciplinarity in relation to teaching and research. Whilst many academics are regularly involved in interdisciplinary teaching and research, a majority have no experience of such collaboration. Their academic practices are regulated by the specific academic tribes (Becher and Trowler 2001) to which they belong.

The academic staff, who participated in the CG, experienced difficulty in escaping from disciplinary tradition. Trowler (2009) states that a "multiple of subjectivities and identities coexist in each discipline and these have important implications for practices, issues and agendas, and teaching and learning regimes" (191). Consequently, not only do disciplinary communities result from structural and ideological schools of thought, but are also shaped by individual and collective conceptions of the discipline (Fanghanel 2009). To go further, Geertz (1983) states that "being a member of a disciplinary community involves a sense of identity and personal commitment, a 'way of being in the world', a matter of taking on a cultural frame that defines a great part of one's life" (in Becher and Trowler 2001:47). Therefore, disciplinary communities influence how academic identities are shaped.

5.3.1. Academic identity formation and discipline

Taylor's conception of identity is a useful tool with which to explore the development of academic identity and the underlying mechanisms of the relationships within disciplines.

According to Taylor (1989), the issue of identity lies in the question of knowing where one stands: "To know who I am is a species of knowing where I stand" (27). A frame that I can identify, that I am committed to and in which I am capable of taking a stand, defines my identity. To Taylor, identity is shaped within a moral space in which the individual takes an orientation 'towards the good'. As he argues: "To know who you are is to be

oriented in moral space, a space in which questions arise about what is good or bad, what is worth doing and what not, what has meaning and importance for you and what is trivial and secondary” (Ibid:28). This quest for the *good* answers the question of “what makes life worth living” and “what makes our lives meaningful or fulfilling” (Ibid:4). To Taylor, this orientation to the good within a bounded moral space is a “crucial feature of human agency” (Ibid:33) and makes individuals’ sense of identity more tangible.

In the context of higher education, disciplines can be seen as defined moral spaces in which academic identities are shaped. As Henkel (2000) mentions: “Not only has academic work provided the conditions for strong identities, but also the building of individual identities that are, nevertheless, embedded in defined communities, has been central to the dynamic of academic life in the Western world” (13). Taylor (1989) emphasises then the importance of “a defined community in the formation of identity” (15). Disciplinary communities are “the seats of languages, conceptual structures, histories, traditions, myths, values, practices and achieved goods” (Henkel 2000:16). These communities are highly specialised and relatively small, dependent on self-regulation and freedom from external pressures, and build a defined space in which identities are shaped.

Language provides a tool for individuals to understand themselves and interpret their world. Conversations, shared within a community, convey specific meanings, values, ideas and beliefs. As Henkel (2000) argues: “Through such conversations individuals learn not only a language but a substance, the ideas and experiences expressed in that language. They are introduced to the myths through which deeply held values and beliefs of the community are expressed”(15). Individuals, through language, can then position themselves within their cultural environment. To go further, Taylor (1989) sees language as directly interlinked with the notion of identity since, via interchange with other individuals, I can answer the question of “Who I am” (35). The definition of where I speak to and with whom, enables me to identify who I am (Ibid). In the same vein, academics within their disciplinary communities converse with their colleagues, students and, hierarchical superiors via a common language, internal to the discipline. Not only does the language permit academics to express a shared disciplinary knowledge but also to share meanings, values and beliefs that only members of their community can understand.

Yet, academics' total commitment to their disciplinary community can be questioned. Academics are committed to their disciplines, partly because they embody bounded moral spaces where they are able to orient themselves towards the good and make sense of their existence, identities and practices. The disciplinary context can be, nevertheless, in dichotomy with, for instance, what academics could think as meaningful and fulfilling in terms of teaching and learning. In that sense, the Scottish philosopher MacIntyre (1994) (whose research interests include the relationship between individuals and their communities), highlights that Taylor's definition of what makes the best sense of our lives is unclear. As he argues: "There are however on the face of it just too many rival ways in which sense can be made out of lives, each involving different and apparently incompatible conceptions of and judgments about goods; and it is not clear what Taylor would say at this point" (Ibid:18).

The case of creative approaches to teaching is a striking example. In my research, academics acknowledged that creativity is definitely fulfilling and meaningful in professional terms. Yet, they claimed that the institutional and disciplinary environments in which they work, do not necessarily favour the development of creative teaching. As one participant argued: "Creativity is hard work but not rewarded. It is self-satisfying to be creative but HE does not foster it" (CG2, A2).

One potential theoretical explanation is that an individual evolves in various moral frameworks at the same time. An academic, for instance, evolves in a professional academic sphere and in many other spheres which can contradict the first one. One disciplinary community may not acknowledge creativity. Yet, an academic, within this same community, can however consider creativity as fulfilling and meaningful. His or her belonging to other moral spaces, which value creativity, can be one rationale. However, academics may experience difficulties in self-reflecting on their disciplinary environment and academic identities. They tend to separate their academic identities that they value strongly, from their other identities outside their professional life. The good that people value is contextual since it can differ from one moral framework to another. Consequently, the notion of identity is also contextual. If the moral framework, in which an individual stands, is transformed, his or her identity can be reshaped. This transformation tends to occur when the moral framework interconnects with other frameworks as the intersection of different frameworks can open new and undefined spaces. From a theoretical perspective, interdisciplinarity in terms of

teaching and learning experiences is an example of an interaction between different disciplinary moral spaces. It may lead towards new moral spaces in which new academic identities can be shaped.

5.3.2. Disciplinary disempowerment and the reshaping of academic identity

Taylor (1989) associates the orientation to the good to the quest for meaningful and fulfilling lives. This orientation to the good represents a continuous quest for the higher moral state, essential to the construction of identity. As he states:

In order to make minimal sense of our lives, in order to have an identity, we need an orientation to the good, which means some sense of qualitative discrimination, of the incomparably higher” (Ibid: 47) [...] This higher moral state is ruled by the domain of reason which consists in the capacity to see, understand and give an account of the world in a correct manner (Ibid: 121).

In the ancient moralists' conception of reason, such as that of Plato, the world embodies truth and order. The realm of reason and thoughts enables the individual to grasp that order. The realm of desires, as sources of chaos, inhibits the emergence of morality and good (Taylor 1989). The quest for a higher moral state underlines the individual's orientation to the good. The good resides in the outside world, symbol of order and truth, which the individual internalizes.

Yet, from a structure/agent power-relationship perspective, this moralist conception establishes a coercive relationship between the individual and the outside world. The individual must follow the model of truth dictated by the outside world. In the university context, discipline as moral space embodies this model of truth that academics must follow to make sense of academic lives. Each discipline is performed in a cultural context that “applies a whole range of practices, values, attitudes and taken-for-granted assumptions” (Trowler 2009:186). Academics accept and internalise these landmarks in order to make sense of their lives. Yet, these let small room for creative deviation.

Taylor (1989) values the degree of empowerment that individuals can experience through their quest for the higher moral state. Actions as superior generate respect. In that sense, the contemplation of these actions

can inspire a motive, which empowers individuals to live up to what is higher. He explains that the modern conception of reason and quest for good is procedural. In that sense, the individual no longer contemplates the order of the outside world but rather constructs a picture of things following the canons of rational thinking. In order to do so, the agentic reflexive stance is crucial. The first-person experience is placed at the core of this process. Taylor (1989) argues that “instead of being swept along by the error of the ordinary bent of our experience, we stand back from it, withdraw from it, reconstruct it objectively, and then learn to draw defensible conclusions from it” (163). The individual then gains control over the environment and his or her self. In that sense, the modernist conception of reason depicts an individual who is self-master. This individual also no longer simply contemplates the exogenous world, which embodies the good and the truth. He or she has the power to act on it.

“My sense of myself is of a being who is growing and becoming [...] I can only know myself through the history of my maturations and regressions, overcomings and defeats. My self-understanding necessarily has temporal depth and is incorporated in narratives” (Ibid:48). Hence, our sense of identity requires that we understand ourselves through narratives:

This sense of the good has to be woven into my understanding of my life as an unfolding story. But this is to state another basic condition of making sense of ourselves that we grasp our lives in a narrative [...] It has often been remarked that making sense of one's life as a story is also, like orientation to the good, not an optional extra; that our lives exist also in this space of questions, which only a coherent narrative can answer. In order to have a sense of who we are, we need to have a notion of how we have become and of where we are going (Ibid: 47).

In the context of higher education, Trowler (2009) states that “seeing disciplines as having structural character but also being constructed by the narratives of those within them is important too: the stories faculty tell each other about disciplines and subdisciplines are very significant and help create a kind of reality themselves” (185). On one hand, the construction of disciplinary stories contributes to disciplinary power. Yet, on the other hand, these stories can be reconstructed any time. Consequently, the disciplinary moral framework, in which academic identities are shaped, cannot embody an absolute truth. “Teaching and learning regimes are in a state of provisional stability and any description of them is true only for now” (Ibid:

187). In that sense, narratives can reinforce the structural disciplinary power; however the construction of new narratives can disempower the structure.

The classical moralist tradition of disengagement (such as Plato's) calls on individuals to reflect on habits and usages that are ruled by an objective order. By contrast, the modern ideal of disengagement advocates for the separation from themselves through self-objectification (Taylor 1989). "Disengagement" (Ibid: 171) "requires a reflexive stance" (Ibid: 174), which encourages the agent to de-construct and reconstruct new narratives and encourage his or her empowerment. Taylor states that the process of "disengagement" opens the "prospect of self-remaking" (Ibid: 171) as it involves stepping aside and becoming aware of our own activities and the processes, which form us. Consequently, it helps to objectify all particular features, which are objects of potential change, to work on them and remake them. Hence, our representation of the world, which conveys beliefs, habits, traditions and narratives can be questioned and transformed. Our identities are consequently reshaped throughout this new representation of our environment.

5.4. Reshaping the 'social imaginary' of disciplinary communities: towards enabling creativity

Drawing a parallel with Castoriadis's (1987, 1994, 2007) theory of 'social imaginary', academic disciplinary structures are the product of the 'social imaginary' of disciplinary communities. The transformation of such 'social imaginary' can encourage the construction of new academic identities, and academics may be able to disengage from the practices of their traditions.

5.4.1. Discipline as a product of the 'social imaginary'

Castoriadis's (1987, 1994, 2007) work on the 'social imaginary' posits that our society and its institutions, are products of the 'social imaginary' process, in the sense that they are the creation of society itself. Each individual has an ability to shape the "radical imagination" (Castoriadis 2007:74), which represents the essence of the individual psyche. The psyche of the individual human being is the basis of the 'radical imagination'. To Castoriadis, 'radical imagination' is the origin of all the representations and meanings that constitute our society and institutions. It is 'radical' because it refers to "the creative force in making social-historical

worlds” (Gaonkar 2002:6). However, Castoriadis (1987) states that the ‘radical imagination’ is not complete without the ‘social imaginary’ or the *instituting social imaginary* by which a social-historical collective comes to be. The radical imaginary does not take shape in isolation, and cannot become signifiable, apart from the ‘social imaginary’ as the self is interdependent to others and society. The ‘social imaginary’, or what he calls the *instituting social imaginary*, represents the power of creation of all human collectivities from which emerges all the institutions and structures which constitute a society. These former are vectors of symbols and representations that individuals created and to which they are bound. In that sense, those institutions bear significations that “regulate people’s lives” (Castoriadis 2007:74). ‘Social imaginary’ significations’ “establish the ways in which socialized individuals are to be fabricated, and institute motives, values, and hierarchies of social (human) life” (Ibid: 230). Consequently, ‘social imaginary’ significations’ make sense of the social world.

Habermas (1987) argues, however, that Castoriadis’s explanation of why certain types of ‘social imaginary significations’ should be chosen in opposition to any others is unclear. In addition, he moves away from a philosophy of consciousness in order to build a theory of communicative rationality that places communication and intersubjective praxis at the heart of the social-cultural creations. To him, social-historical creations do not result primarily from a collective activity between socialized psyches but from praxis between individuals. He insists that communication between subjects through language is at the origin of any societal creations and conditions the psyche. In that respect, he sees the private unconscious as a derivative phenomenon that is the result of an intersubjective praxis and not of a pre-linguistic imaginary that is rooted in the private unconscious, as Castoriadis’s theory implies.

In response, Castoriadis (1989) considers Habermas’s conceptions of communicative rationality and intersubjective praxis, which appear to tie language to social significations, to be not clear. In addition, he believes Habermas’ theory neglects individuals’ capacity of self-transformation and autonomy as it tends to assimilate psyche to the socialized individual. To him, Habermas conceptualises social significations as the mere reflections of the outside world translated into words. By contrast, Castoriadis argues the social individual lies at the interface between psyche and social representations. Individuals hold an intrinsic psychic capacity for reflective

and deliberative activity that can continuously transform their 'radical imaginary' at the origin of any social-historical creations.

In the context of higher education, following Castoriadis's argument, I suggest that academic disciplines constitute social worlds, which are the product of the 'social imaginary' generated by academic disciplinary communities. These disciplines bear significations that regulate academics' lives. The mechanisms of the 'social imaginary' of academic communities are examined in the following paragraphs.

Charles Taylor (2007) suggests the 'social imaginary' is not a set of ideas but rather is what enables (through making sense of) the practices of a society. According to him, the 'social imaginary' is "that common understanding which makes possible common practices and a widely shared sense of legitimacy" (Ibid: 172). He explains that our 'social imaginary' incorporates a sense of the normal expectation that we have of each other. This expectation is "represented by a common understanding which enables us to carry out the collective practices which make up our social life" (Ibid: 172). Academics, trained and socialized in specific disciplinary structures, share a common understanding that makes possible their academic practices and gives them sense of legitimacy. Common disciplinary traditions, customs, transmitted knowledge, beliefs, morals and rules of conduct, as well as linguistic and symbolic forms of communication are conveyors of this common understanding. They are products of the 'social imaginary' of academic communities.

Yet, the concept of the 'social imaginary' goes beyond the notion of common understanding that makes sense of particular practices. Taylor (2004) explains that the 'social imaginary' also makes sense of whole predicaments such as "how we stand to each other", "how we got to where we are" or "how we relate to other groups" (23). He defines the 'social imaginary' as "the ways in which people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations" (Ibid: 23). The use of myths, parables, stories, legends and narratives may take a significant part in the construction of the 'social imaginary' to answer questions on social existence. Stories and narratives may represent useful media for individuals to comprehend their social environment and social existence. Applying

such to academia, we can see the role of the 'social imaginary' of disciplinary communities in defining and shaping narratives which make sense of academic existences, and lead to shared understandings and legitimation of norms of practices.

Further, the 'social imaginary' also makes sense of academic disciplinary identities. I formerly stated, disciplines are the seats of norms, procedures, practices but also narratives, stories, myths. The 'social imaginary' of disciplinary communities then constitute bounded spaces in which academics work and orient themselves but also in which academic identities are shaped.

5.4.2. The paradox of imagination: academic creativity constrained or enabled?

Disciplines result from the collective creative power of academics' imagination. Individual academics feel bounded to the creations of their communities, which are vectors of fixed representation, meanings, rules, procedures. Yet, this process of imagination is intrinsically paradoxical by both generating constraining structures and allowing the reinvention of structures.

Castoriadis (2007) suggests that imagination is an efficient tool to challenge the representations created by the 'social imaginary' itself. As he points out:

The imagination is individual and collective. It can be compliant or defiant, determined or determining, instituted or instituting: in short, heteronomous or autonomous. The autonomous individual and social imagination is what allows us to envisage the possible, the yet to be, to see beyond, to vision otherwise, to think and be and become differently (Ibid: 38).

According to him, imagination is rebellious against determinacy. In that sense, it represents an efficient tool to transform our representations of social structures. Social and political systems, produced by the 'social imaginary', can be changed. He stresses the need for the "awakening of imagination" and for "creative imaginary" to support "a social and political awakening, a fresh upsurge of the project of individual and collective autonomy - that is, of the will to be free - in order to cut the path of the capitalist imaginary that we created" (Ibid: 86). I understand that when developed as a market driven entity, academic institutions are however

more focused on the production of graduates with standardised knowledge than the creation of creative, critical and autonomous individuals who may challenge societal norms. Trigwell and Prosser (1996a,b; 1999) have put forward that a high quality teaching system encourages the development of the capacity of 'conceptual change' in students:

This approach is one in which teachers adopt a student-focused strategy to help their students change their world views or conceptions of the phenomena they are studying. Students are seen to have to construct their own knowledge, and so the teacher has to focus on what the students are doing in the teaching-learning situation. A student-focused strategy is assumed to be necessary because it is the students who have to re-construct their knowledge to produce a new world view or conception. The teacher understands that he/she cannot transmit a new world view or conception to the students (Trigwell and Prosser 1996a:80).

I believe that the possible transformation of the university, and ultimately the pursuing of the project of autonomy, are at least partially rooted in academics' capacity for emancipation from the current system they work in, beginning with autonomy from the constraints created by the 'social imaginary' of their disciplinary communities.

Along these lines, Halpin (2008) has researched the power of imagination within academia. Imagination can enable academics to step outside disciplinary traditions, norms or beliefs to acquire the power to see possibilities beyond, and feel unbound to, what is already in place. As he argues: "It is about questioning, making connections, inventing, and reinventing in all subjects areas" (Ibid: 73).

Imagination is consequently a potential source of social transformation. Castoriadis (2007) explains social transformation occurs through the project of autonomy. He sees in individuals the ability of self-reflexivity. This ability enables them to go back on their creations and change them. As stated above, to him, the concept of autonomy is intrinsically related to the notion of resistance against determinacy. At the social level, the project of autonomy calls "for a shared capacity to question the 'social imaginary' significations that make up the same society. Representations and institutions existing within a society need to be reflexively interrogated and hermeneutically re-appropriated" (Gaonkar 2002:8). At the individual level, this reflective subjectivity means that an individual is capable of "calling into question the imaginary significations of the society, in which she lives, and

even the institutions of that society” (Castoriadis 2007:129). This self-reflexivity is possible through one crucial mechanism, psychoanalysis. As every society comes from the human psyche, Castoriadis (2007) argues that “psychoanalysis can and must provide an essential contribution to the politics of autonomy. There can be no autonomous society that does not look inward, wondering about its motives, its reasons for acting, its profound inclinations” (89). He is however conscious that it would be impossible to psychoanalyse every individual constituting the society. Yet, he suggests that political and pedagogical entities should take into consideration the psychoanalytic dimension in their approaches. Educational institutions should aim at educating autonomous individuals focusing on, along with knowledge transmission, the development of the person including the psychoanalytic dimension. This could encourage individuals to take part in the project of autonomy towards social transformation.

David (2000), however, questions the virtues of psychoanalysis and education in supporting individuals to become autonomous. To him, Castoriadis's project is too ambitious. For example, education and psychoanalysis cannot resolve socio-historical conflicts that individuals experience. In addition, he stresses autonomy does not require the suppression of all dominations and hierarchies created by the society. In addition, Ecclestone and Hayes (2009) have recently criticized the ‘therapeutic culture’ of education driven by *New Labour’s* political impetus within the current UK education system. They argue that the therapeutic culture, which focuses on students’ emotional literacy and well-being, paradoxically promotes a conception of students as weak and vulnerable, and non-autonomous individuals. However, individual autonomy and psychoanalysis are embedded in the Western tradition of education.

In that respect, Marginson’s Times Higher Education article (2010) draws a comparison between the Western and Confucian traditions of education. The article highlights that the Western tradition of education present, for instance, in Britain and the US, meets the need of neo-liberal market forces and produces *private goods* rather than *public goods*. To Marginson, this reinforces the individualist logic of competition, which is a vector of inequality and social injustice. In contrast, he asserts, the Confucian tradition (which can still be found in some Asian countries) produces public good. Education is seen as a familial and collective investment, which favours social justice and harmony. However, he believes individual

autonomy and subsequently social autonomy seem hardly possible in practice within this type of education system. He explains that this system is “located within a social and institutional hierarchy that is mediated by competition in examinations. Confucian social harmony is based on universal acceptance of the hierarchy” (Ibid).

Although Marginson’s perception of Confucian traditions of education could be more nuanced, I still believe that the higher education institution should be a place where not only could students learn about subject content but also about themselves, their identities and their places within university and the wider world. This understanding could encourage them to take critical stances towards the project of autonomy in Castoriadis’ terms, and consequently, ultimately to engage in shaping social progress. Yet, higher education should be also a place where academics can better understand the nature of their academic existences and identities. They would then have a great ability to self-reflect and disengage in terms of practices from the disciplinary worlds to which they are tied.

Interdisciplinary work may also facilitate the project of autonomy. Rowland (2006), who has researched and written about how intellectual enquiry can play a more central role in university life, argues that:

The greatest value of working across different disciplines is only achieved when learners (as students or researchers) begin to grapple the contesting and often conflicting values, purposes and approaches that underlie different disciplines. This is a process of critical reflection upon knowledge (24).

Beyond critical reflection on knowledge, as I argued previously, each academic discipline represents a specific academic world, a vector of ‘social imaginary’ significations. Academics are bound to these significations. Interdisciplinary work should encourage academics to self-reflect on and move beyond their own disciplinary practices, existences and identities. John-Steiner (2000), as a scholar of creativity and socio-cultural studies, states: “By sharing in each others’ expertise and experience, the boundaries of their identities expand” (in Miell and Littleton 2004:15). She also argues the power of collaboration is to:

Keep mind and heart and identities supple, open to wider possibilities. Therefore, it provides emotional scaffolding as well as intellectual scaffolding for creative work. It sets up a safe space to hear

criticism, explore ideas that most of the field would consider eccentric, receive encouragement when work is not going well, and both accept one's personal limitations yet move beyond them with the help of the other (Ibid:16).

Such self-reflection should lead to a greater self-understanding and possibly transform identity towards autonomy. According to Foucault (2000), the heart of the notion of identity embodies self-understanding. Self-understanding gives individuals the possibility to apply rules and principles that are not dictated by belonging to a particular social group, culture or society. This constitutes the source of autonomy.

Although several communitarians (MacIntyre 1981; Sandel 1982) radically reject the relationship between autonomy and identity, Taylor (1989) - also considered as a communitarian - believes autonomy is conceivable via individuals' disengagement from the moral framework in which their identities are shaped. Hudson (2009), who has researched and written on the concept of identity, argues disengagement is possible when the construction of identity, or in other words sense of ourselves, allows the possibility of autonomy despite our socio-cultural and genetic determinants:

Autonomous action is possible, as is relativistic critical distance, but these require us to make a conscious effort to open ourselves toward others [...] It is the autonomous identity shaped not exclusively by heteronomous influences but by self-reflection and the practices of freedom that will have ethical force for, to reiterate, there is no ethics without freedom. This conception of ethics and this understanding of freedom allow us to work against those forms of identity that limit self-expression (racism, sexism, etc.) and promote in their stead those forms of identity that reject fixed boundaries and normative and highly institutionalized descriptions (302-304).

Collaborative group practices, in which participants open themselves to others through communication, should encourage self-reflection (practices of freedom and autonomy). Consequently, these communicative processes should facilitate the re-shaping of identities and generate opportunities for creativity. As she also argues:

If we have a more fluid conception of identity, that is not a given construction but the outcome of communicative processes between speakers, then autonomy is a far more interesting notion because it involves a variety of methods and possible

outcomes. Communication becomes an exercise of autonomy in its fullest sense, a risky enterprise of mind and body [...] In the same way, an adaptive, cumulative, and shifting understanding of identity is a positive opportunity for varied creativity (Ibid:302).

However, self-reflection is not only related to understanding. To reach autonomy, individuals have to engage in a process of “conscientization” (Freire 1985:67). This process involves individuals gaining an in-depth understanding of the world and identifying political and structural social contradictions through dialogue and action. Such process empowers individuals to challenge the oppressive and dominant understandings of the world and act on them towards emancipation (Freire 1985, 1996). In the context of higher education, from a theoretical perspective, I suggest ‘conscientization’ may be facilitated by interdisciplinary communicative processes. Academics should be encouraged to gain an in-depth understanding of the institutional and disciplinary environments in which they professionally progress and of the relationship they have with them. The ‘social imaginary’ significations, which define their academic disciplinary worlds and which legitimize their disciplinary practices, identities and existences could be challenged. This could open possibilities for academics to disengage from these significations and re-shape their identities. Such transformations could also challenge their meanings of creativity constraints towards autonomy and emancipation in terms of teaching practices.

5.5. Conclusion

In summary, the argument emerging from my theoretical framework is that limits around creative teaching originate beyond the exogenous disciplinary structural constraints mentioned by the academics involved in my study (as described in detail in the following chapter). The ‘social imaginary’ of academic disciplinary communities, as a product of an imaginary force of creation, generates disciplinary power which prevents and inhibits creativity. Yet, this disciplinary power is a vector of ‘social imaginary’ significations, which make sense of academic identities, existences and practices. Transformation of these significations could lead towards new academic identities and open space for new and innovative possibilities in the approaches to teaching.

This shift requires, however, that academics engage in a process of self-reflexivity, self-understanding and disengagement from these disciplinary

significations. Interdisciplinary collaborative processes could enable such engagement. This theoretical approach grounded in a critical stance offers a possible solution to liberate academics from the constraints they experience on their teaching practices; to understand that they have a role to play in their own coercion and, by altering perspectives, reshape practice.

Developing such a conceptual framework whilst I undertook the research, and interrogated the data, gave me new insights to explore the meaning of my research outcomes. In the following chapters, I will discuss the research findings in some detail.

Chapter 6: Disciplines



“The interview was taking place at DERI Building in the ‘Applied innovation’ wing located within the Galway Business Park in front of the Westwood hotel, 15 minutes walk from the NUI Galway Arts Millennium Building. This Business Park environment was very different from the campus. I needed to swipe a card to get inside the wing, but I did not have one. A girl arrived from the inside and opened the door for me. She showed me my interviewee’s office. I knocked at the door and entered a huge office. Many beautiful pictures were hanging on the walls. One caught my attention: a beautiful picture of Einstein in black and white. My interviewee welcomed me in a very friendly way and asked me if I wanted a cup of coffee or tea. I told him I really liked his photographs. He told me they were part of his art collection but he did not have enough space at home, so he thought it would be a good idea to put them in his office...” 05.11.09



“A bit early, I reached the top floor of Aras Moyola, fancy building of NUI Galway. I sat down in front of my interviewee’s office waiting for her. I turned my head and I saw her arriving from the corridor. We entered her office. The room was extremely tidy. She welcomed me nicely and she asked me if I wanted some tea or coffee...” 16.10.09

6.1. Introduction

In every university, architectural structures and academic disciplines are correlated. Different physical spaces, different office atmospheres embody different disciplines. Typically, each academic department is physically located in one building of the campus. Blackmore and Kandiko’s (2010) work on leadership and interdisciplinary research and teaching, highlights one fundamental characteristic of academic disciplines is the physical environment which can influence the possibility (or not) of interdisciplinary work. Academics develop a sense of belonging to the physical spaces associated with their departments, and these spaces are physically disconnected from one to another.

Throughout this chapter, selections of my notes from my field diary illustrate the spatial disciplinary diversity existing within the university campus of NUI Galway where my research took place. However, one can wonder: what hides behind the physical aspect of these disciplines? Beyond physical buildings, disciplines are also conceptual power structures in which individual academics and their disciplinary communities evolve. Yet, they can also become conceptual walls in which academics feel constrained in terms of their teaching practices.

Krishnan (2009) explains that defining the concept of *discipline* is not an easy task: “The disciplines are so different from each other that it is hard to come up with a concise definition that would fit all of them to the same degree” (7). Yet, a general consensus exists on the idea that an academic discipline represents an epistemological domain that regulates its own theories, methods and content.

1) disciplines have a particular object of research (e.g. law, society, politics), though the object of research may be shared with another discipline; 2) disciplines have a body of accumulated specialist knowledge referring to their object of research, which is specific to them and not generally shared with another discipline; 3) disciplines have theories and concepts that can organize the accumulated specialist knowledge effectively; 4) disciplines use specific terminologies or a specific technical language adjusted to their research object; 5) disciplines have developed specific research methods according to their specific research requirements; and maybe most crucially 6), disciplines must have some institutional manifestation in the form of subjects taught at universities or colleges, respective academic departments and professional associations connected to it (Ibid: 9).

Yet, Becher (1981) argues disciplines are not “of course, purely epistemological. Disciplines are also cultural phenomena: they are embodied in collections of like-minded people, each with their own codes of conduct, sets of values and distinctive intellectual tasks” (109).

Disciplines as combinations of epistemological domains, physical structures and cultural phenomena constitute disciplinary power structures (see earlier discussion of Foucault (1975)). They hold regulated communications, capacity and power mechanisms that shape academics’ training and socialization. Consequently, such power structures can subjugate them in their work.

In this chapter I will present some of the evidence from the focus groups and interviews that demonstrate how academic staff perceive the constraints under which they operate in relation to the possibility of creativity. Because the context of the discussions was always in reference to how they teach, this is where much of the focus will be, although the issues of research and administration do also arise.

6.2. Institutional structural constraints



“I arrived at the Centre for Irish Studies, a small little house, opposite to the international office of NUI Galway Campus. My interviewee’s office was on the top floor of this little house. I knocked on the door; he came to open the door and asked me to wait for five minutes. Five minutes later, he let me in and welcomed me very nicely...” 20.10.09

My research examines academics’ perspectives of creativity in terms of teaching within the higher education context. Contrary to what some researchers have argued (e.g. Jackson 2006), my study reveals recurrent discourse that claims difficulties in the implementation of creative teaching, are not related to the elusive nature of creativity, but rather, due to institutional structures and processes. Structural and ‘logistical’ issues that they raised in the interviews and focus group discussions include: time, resources, mandated assessment requirements, risk aversion, fear of failure, professional trust and lack of space for experimentation.

Craft and Jeffrey (2008) raised the impossible tension existing within school education in England, where “teachers are encouraged, on the one hand, to innovate, take risks and foster creativity, and on the other, are subject to heavy duty accountability played out through the publication of school league tables based on national assessment data, alongside inspection and performance-related career progression” (579). Along these lines, a paradox seems also to exist in higher education. On the one hand, the higher education discourse praises academics’ autonomy in terms of teaching and research delivery. Yet, on the other hand, the university structure puts pressure on them in terms of practices because of resources, course scheduling and regulations. As one participant mentioned:

A lot of what we do is constrained, rule bounded and then you are in front of a class and nobody asks you what you are doing in there, how you do it then? [...] Yet, I very often say to my students we are paid to say what we like but very often I say the opposite of what I like because of the structural constraints surrounding us [...] Our working environment has the two extremes (CG2, A1).

In addition, according to the majority of participants involved in my study, the academic structure not only limits creative teaching but also does not encourage it. As another claimed: “I don’t think there are enough incentives to try to be creative within the higher education environment” (FG, G1, A2).

Creativity and academic institutional structures appear then to be in

tension. As one participant said: “All structures go against creativity” (CG, A1). Creativity seems to be connected to the intrinsic aspect of human nature. In opposition, the structure is a construction, extrinsic to the individual. As one participant explain: “Creativity is part of the human condition but is suppressed by systems and structure in place” (I, A1). The higher education, in his view, constrains individuals’ creative abilities. As the same participant continued:

There is no human being who has not the capacity for creativity or imagination. The difficulty is that from a very early age, creativity is suppressed, it is frustrated, and it is diverted by systems of one or another. Again, the challenge here is to reconcile system of behaviour with the human need for creativity. I think there should be better ways that we developed so far to encourage creativity in tandem with other forms of learning and forms of expression [...] I mean we are in a university, it should be possible in university to reconcile the need of creativity with others needs that the system of education requires of us [...] (I, A1).

Hence, creativity and university structure are in contradiction but reconciliation between the two elements may be possible. Institutional structures as such are not hostile to creativity but can be in their application.

The case of this participant is very interesting. He is at the same time an academic and a distinguished poet with an international reputation. I would have had expected that he would see the distinct separation of creative work and academic work within higher education as an unfortunate phenomenon. In his opinion, the first role refers to new and unconventional approaches. By contrast, the second embodies rigid and traditional approaches. However, he recognized that he tends to accept the divide between his two professional worlds. As he stated:

I think generally speaking we accept too easily, myself included, the distinction between academic work and creative work. There is a categorical distinction between them but there should be a complementarity between them. I think in our system, in the Irish third level system, there are greater suspicions of creativity than in some other cultures. I would think in American universities, which I know more than some other countries, it is more a standard-practice to expect that a person teaching literature will also be a writer of fiction or drama, or whatever. In our system, we are much less inclined to think that way, despite the fact that

many of our academics, particularly in the area of literature and artistic production, are generally practitioners as well as academics. But there is still a suspicion of it. I am suspicious of it even though I do it myself, I don't like the idea that one form of thoughts and discourse would infect the other (I, A1).

Other participants as part of my study confirmed the existing dichotomy between creative work and academic work, notably as regards teaching approaches. To the question, 'Is creativity something that you would more easily associate with research or teaching?' (CG, Q1), one participant answered: "I think creativity has been and always will be at the core of research. However, I don't think that creativity and teaching have really been linked to the extent they should be" (CG, Q1, A11). This is even more so the case as the value of teaching, in comparison to research, seems to be undermined within the university system. Pratt (1997) explains that the increasing HE culture of planning, evaluation and implementation "trivializes teaching as set of technical skills" (41) as it does not consider "the diversity of content, context and perspectives on teaching"(41). As a result, teaching is not encouraged to be a "significant aspect of scholarly work [...] Thus, while persuasive voices are calling for the recognition of teaching as a scholarly activity, faculty and administrators believe that teaching is not a valued activity within the reward structures of tenure and promotion, even at avowedly 'teaching institutions'" (24).

Despite this call for reconciliation between creativity and structure, the majority of academics as part of my study, willing to become creative teachers, still perceived the academic structure and creative teaching practices as contradictory. They considered the university system as "a close and rigid system"(I, A2) that stifles their creative possibilities. As one participant put forward:

At one level I have lots of freedom. Within the courses/ teaching/assessment that I deliver I can innovate etc. However, all of my teaching/assessment is constrained by schedules, rooms, timetables and by sharing courses with colleagues. This puts physical limitations on how I can change things. Almost all teaching is in one hour block and most of the time delivered in packed theatres. Most of the assessments consist in end of semester examinations with exam papers (CG, Q1, A1).

Physical space limitations, existing within the HE context, are then

important components of these structural constraints. For example, classroom spatial arrangement and size can restrict new teaching and learning approaches opportunities:

Because of the size of rooms, you have to have a system more produced towards exams [...] There are not enough resources in the school to do something different, not enough rooms, not enough equipment [...] The cheapest system we can have is the one based on exams and the standard syllabus focused on theory [...] There is no space for taking risks nor acknowledging failure which are part of the creative process (CG, F1).

Another participant added:

I think the university is over-structured. You organize departments, units, disciplines. You organize funding which structure it. That puts the strangle hold on everything that's possible [...] So if you have a new ideas for a course, it is almost impossible to do anything about it because if it does not fit the initial structure [...] Even the rules of the rooms, they have to be a certain sizes, there is only a certain type of activity you can take, the structure is tying everything up (I post CG, A1).

One claimed, more specifically: "Anything other than a lecture is creative" (FG, G2, A1). Lectures are mainly held in lecture halls with their specific spatial arrangement, in which students and teachers are constrained to remain at the same place during the lecture. They restrict teachers in developing alternative approaches to traditional course 'delivery'. Furthermore, this comment suggests that there is a very limited definition of creativity in the context of teaching at university, one that may be somewhat unimaginative in ambition and scope. Physical space constraints can mirror (or lead to) shortcomings in imaginative 'space'. One area of research (e.g. Martin 2010) deals with the impact of conceptual and physical spaces on the emergence of creativity. According to Martin (2010), there is a need for creating "our own inner space, to allow ourselves mental space and time to play and dream and to vision new possibilities" (25). In that sense, the quality of physical space, which surrounds individuals, enables their imaginations to dance and conditions their creative process. As one participant argued: "There is all the physical structure that also limits what can be done [...] And if you want creativity and innovation type of things, you need to create structure and spaces that allow new spaces for creativity to emerge" (I post CG, A1). Physical and imaginative space limitations are then important structural constraints but not the only ones.

Time restrictions are also barriers to creative teaching. One illustration of these challenges lies in the institutional pressure on academics to designate specific, structurally constrained, and pre-determined 'learning outcomes'. The focus on the delivery of such outcomes, may mean that efforts are directed towards limited forms of achievement and compliance, rather than opening a space for creative expression or wider-ranging enquiry. As one participant mentioned: "There are external pressures within our departments and university in terms of setting out what the learning outcomes are and so on. It is also time consuming to be creative!" (FG, G2, A1). The organisations of field trips, which take place outside the university campus, provides a further illustrative example, requiring even more time than lectures or seminars: "If you look at arts such as history or archaeology, field trips do represent a major learning based approach. A lot is to do with time!" (FG, G2, A1).

Finally, a number of academics frequently mentioned the constraining assessment requirements which do not give much room to manoeuvre. As one participant explained: "I feel I have freedom to shape modules allocated to me, within the bounds of the outline syllabus for the module [...] But, the constraints that most impinge on me would be examination and general assessment arrangements" (CG, Q1, A2). Academics perceived these traditional assessment requirements as uncreative. However, they acknowledged they are efficient tools to evaluate students. One participant stated in that sense: "In terms of assessment, the most efficient approach is to go for two hour exams, anything outside increases work load and you don't have any resources to cope with it" (CG2, A1).

Kleiman (2005), who has researched and written about the assessment of creativity in higher education, suggests that "creativity and assessment are not mutually exclusive terms" (28). He points out the 'negotiated assessment' system developed at Liverpool Institute for Performing Arts⁵² that is a striking example of how the evaluation of creative processes and products within higher education is possible. This assessment system is based on a constant negotiation process between students and tutors that aims to reshape the nature of the assessment. The aim is to find the most appropriate way to evaluate students. As a result, students, as much as teachers, are involved in the design of their assessment. This negotiation is

⁵² Liverpool Institute for Performing Arts (LIPA) is one of the UK's leading institutions for the performing arts created in 1995 with an unique interdisciplinary performing arts degree programme. Kleiman was responsible for developing LIPA's system of negotiated assessment and became LIPA's first Head of Performance Design and Head of Assessment.

possible as there are no formal, pre-determined learning outcomes. Although this type of assessment might be perceived as developed more naturally within performing arts disciplines, I believe it can be applied to all subjects across disciplines. However, Kleiman stresses most higher education assessment systems are traditional. They are closed and reinforce “replication and formulation rather than innovation and origination” (Ibid: 21) as they are based on inflexible and “expected learning outcomes and assessment criteria” (Ibid:21).

To go further, the challenge of measuring creativity was a crucial concern for a majority of academics. In my pilot study, key issues around measurability were discussed. During the FG, the groups raised questions such as ‘How do we measure creativity?’, ‘Is creativity measurable and if so how do we do it?’ and, as a result, ‘To what extent can we allow originality and creativity?’. A general consensus among participants emerged on the idea that only certain types of skills tend to be valued within the assessment system. This system recognizes writing excellence as the main designator of academic prestige. As two participants discussed:

We do work usually towards a model of writing excellence which maybe marginalizes some people who want to be more creative, who want to be assessed differently [...] They would not have to write their knowledge! (FG, G2, A1)

Maybe the problem is to assess them? (FG, G2, A2)

Orals, for instance, would be a real help for a nervous student to be assessed! (FG, G2, A1)

Another participant argued: “The university currency is the written word” (FG, G1, A1). In that sense, she referred to her experience in a workshop on creativity that made her realize that written skills are not the only skills that the academic system could recognize. As she claimed:

I went to a workshop on creativity. It was organized by a literacy group for training adult tutors [...] They read texts made by people who were illiterate, which dealt with the fact to be illiterate and have to write a text [...] They asked us to answer back through a written response, to write down some words, as we did here in this focus group through brainstorming. We are all very used to use writing words. But then, they also asked us to paint our responses and we were given then paint and everything [...] It was

such a liberating experience! It kind of helped us to get over a threshold of understanding of something which was kind of difficult and to help express ourselves. I realized how focused we are in writing things. I mean, it is something I love, I love words, you are working with it in the university but I realized this whole other world that I completely ignored [...] And if you get over a threshold or some difficult things or some issues to discuss, the verbal way, or the writing way is not always the best way [...] I mean that's our currency, the written word but that is not always the best (FG, G1, A1).

However, this statement provoked some scepticism from other participants. One of them asked: "If you start to allow these other experiences, these other forms of criteria, are we still a university any more? Aren't we watering down what makes university special?" (FG, G2, A2). This reaction demonstrates that although academics complain about institutional restrictions, some of them, however, seem to face difficulty when questioning the nature of the assessment system to which they are tied. It may be that their scepticism echoes their general discomfort in challenging the nature of the institutions in which they work and consequently the nature of their roles as teachers.

However, it is not necessarily that the academics are averse to valuing a wider range of skills amongst their students, but rather that they may be unclear as to potential methods which can be used and which would be regarded as 'legitimate' within their institutional assessment regimes: "I think we all recognize as well that we would like to appreciate as many skills as we could. We just don't know how to do it!" (FG, G2, A1). Yet, in the individual interviews, participants inclined to creative teaching practices, confirmed that measurement and assessment of creativity are difficult tasks but not impossible. One of them, for example, teaches a course on the topic of creativity and innovation. To him, creativity measurement involves risk-taking from teachers in the students' evaluation process to face the lack of intangibility of creativity. In addition, the actual university system assesses learning outcomes. By contrast, a focus on the student learning process rather than outcome is required to measure creativity.

But the problem is that in the educational system we reward rationality because it is easier to measure [...] So how do we measure creativity? (I, R)

By taking risks! [...] The educators themselves need to take risks in terms of being able to stand over how they are assessing creative work because it is

not as tangible as filling out an exam paper [...] It is more an overall theme of what the individual has done, how students have engaged with the process, how they have engaged in self-reflection [...] but the lack of intangibility, some instructors struggle with that (I, A7).

Yet, despite sporadic individual solutions to challenge the restrictive assessment process, the dominant discourse that emerged blames the university system of assessment for making evaluation of creative skills difficult.

Hence, physical space limitations, time and resource restrictions, and creative assessment challenges are perceived by academics as institutional structural constraints on their creative teaching attempts. However, disciplinary structural constraints, which I will develop in the following part, are also at stake in that coercion.



“11 Am. My friend and I arrived at the Burren College of Art after a short trip over the beautiful Irish countryside of the Burren. Many small buildings formed the College of Art. One of them was a charming old Castle tower located just in front the Burren, made of a purple-blue stone from that mountain. We went to the administration building. A nice woman asked us to go to the coffee place, which was the school canteen, and wait for my interviewee. He arrived few minutes later and sat with us. He started very gently to talk to me. We decided to go to his office to undertake the interview while my friend would visit the art-studio and library...We entered his office, which was located in the administration office. I saw his two drawings hanging on the wall. They were huge and made of drawing pencils only. I looked at these very impressive artworks for a while...” 29.10.09

6.3. Disciplinary structural constraints

At the micro level, individual academics can also perceive disciplinary structures as constraints. The social pressure from their disciplines and their disciplinary communities can counteract risk-taking possibilities and limit opportunities for creative practice.

As stated earlier, following Foucault's (1975) argument on disciplinary power, I am suggesting that academic disciplines are the fruit of such disciplinary power, limiting academics in their conceptions of teaching and consequently their practices, notably in terms of innovative and creative approaches. One participant refers to the authoritarian nature of the academic disciplines, which contradicts creativity emergence within HE. As he argued:

One of the great obstacles for creativity is the educational system [...] because creativity takes the students in an exactly opposite direction to which schooling takes someone in [...] A good student is obedient, works within the terms of references, within a so called discipline and here the term discipline, is not simply the intellectual regime involved [...] It reflects the authoritarian system of a punitive justice from where the term originally comes from. Punishment and schooling go very hand in hand and are going in the opposite direction of creative trust (I, A4).

In the same vein, another participant insisted on the relationship between academic discipline and power. As he argued: "Actually I don't like the word 'discipline' just as I don't like the word 'academic' because the word discipline has already meanings of control, constraint and good behaviour" (I, A2).

According to Foucault (1975), referring to his conception of disciplinary power, knowledge is intrinsically connected to power. He explains that power does not exist without the correlative constitution of a field of knowledge that assumes the authority of truth and therefore regulates practices once applied in the real world. Consequently, it could be implied that academic disciplinary power would not exist without the correlative constitution of a field of academic disciplinary knowledge. Although this field of knowledge can be perceived as fixed, academic knowledge evolves and changes over time. Academics through their work bring new knowledge to their field and change the content of their disciplines. In that sense: "Even though all academic disciplines like to pretend that they are all clean, clear and bounded like a leather book; in fact they are all contradictory and the subject of contention and change" (I, A2). Yet, a deeper look at the conceptions of knowledge and teaching within various disciplinary contexts reveals that traditional teaching methodologies support an approach of knowledge transmission, which reinforce disciplinary power exercised on both students and teachers.

A part of the literature (e.g. Biglan 1973; Becher 1994; Moses 1990) has highlighted the differences of cultural norms, values, ethical ethos and pedagogical traditions from one discipline to another. Some researchers (e.g. Biglan 1973; Kolb 1981; Becher 1989; Becher and Trowler 2001) have focused more particularly on the differences in epistemological beliefs of disciplines (identifying four categories: 'pure hard', 'soft hard', 'applied

pure', and 'applied soft') that seem to influence learning approaches of students. The strong opposition between 'pure hard' and 'applied soft' disciplines is particularly revealing of such influence. 'Pure hard' disciplines as philosophy or maths require abstract conceptualisation and reflective observation from students, as the nature of the disciplinary knowledge is very often theoretical, fixed and cumulative. By contrast, 'applied soft' disciplines as education, nursing or business studies focus on the integration and application of existing knowledge through active and concrete experience, as the main concern is the enhancement of professional practice. The content of such disciplines is more open to contention as experience and practice involve elements of dispute, experimentation, risk-taking, failure and transformation.

Nursing studies is a relevant example, which stresses the importance of practice-based learning. In this case, practice is a fundamental component of the learning process because students are trained to become professionals with well-developed practical knowledge and skills. One participant related the practice-based learning exercises within nursing labs, she uses with her students:

We use simulations in fourth year. Students will be obviously staff nurses soon. So we have actors who are playing the role of patients and the students are being nurses, so they have roles and some of them are in charge of the ward [...] Patients have scripts [...] It is trying to simulate what it is like in a real life situation where everything is not perfect because in laboratories you could make everything perfect but in real life that is not going to happen [...] We use that kind of strategy to give students an opportunity to practice in the safety of the lab where it does not matter what happens (I, A6).

The fundamental benefit of the practice-based method is that the learning becomes relevant to students. She continued: "I think students learn best when it is something relevant to them, they can see the relevance and where it is going to be used [...] So in nursing it is really easy, you can say things like: 'this is a skill you would be doing for the rest of your working career' or 'you need to apply this because if it happens, you need to do that'" (I, A6). In that respect, another participant suggested:

What I find really difficult for students who are not working is to create relevance for their learning. They learn in an abstract way all the time. In primary school, you are young and the learning seems to be part of it. Then in secondary school, there is this

realization: why am I learning this? Because there is no relevance, and as you become mature that question becomes really significantly important” (CG, A12).

Besides the issue of relevance, practice-based learning, combined with theoretical knowledge stimulates students’ motivation to learn, as they become actors in their own learning process.

In addition, one participant narrated his experience with project-based learning. As opposed to a formal learning format based mainly on theoretical knowledge transmission such as traditional lectures, students involved in collaborative activities demonstrate more motivation as they take responsibility for their learning via asking questions, building knowledge, and determining real-world solutions to questions.

Students learn more in projects than they do in a lecture. Lectures are essentially a volume of knowledge being transferred and students in many cases have no way to apply that learning [...] So project based learning is really important [...] The motivation from students is really high [...] You give students only a small amount of skills for a project and it entails a problem-solving dimension as the third element of creativity, which is really high in that process (I, A5).

The stereotypical traditional view of teaching focuses almost exclusively on the transmission of knowledge, privileging the teacher as ‘gatekeeper’ and leads students to consider that there are definitively ‘correct’ answers. By contrast, approaches which are based in real-world practice, or in tackling challenging projects provide much more scope to explore the contestation of knowledge, the ‘messiness’ of the lived world and experience the value of risk-taking, failure, and re-attempts – closer to what we have argued, are the hallmarks of ‘creativity’.

For instance, if you tell people: ‘this is what a villanelle is. Now everybody has to write a villanelle each week for five weeks and then, at the end, we will pick up the best one’ [...] Nobody is going to write a villanelle if they don’t know what it is. The chances of people writing poems and especially good ones are going to go up if they are required to do so and get practice of doing so (I, A3).

In that sense, practice can help students understand theoretical academic knowledge. They become fully engaged in their own learning process

rather than only passively receiving information from teachers. Furthermore, practice increases scope for the development of their creativity as part of the learning process. Traditional disciplinary teaching methodologies do not always encourage students to apply theories they learnt. Yet, this application could lead students to better comprehend disciplinary knowledge. Along these lines, one participant argued that academics expect students to understand academic knowledge, but paradoxically the disciplinary structure prevents them from teaching for 'understanding'. As he mentioned:

As the discipline developed, it seems to me that a very static mechanical, uninspiring form of teaching exists, which is descriptive only, simply reporting knowledge, reporting information to students whereas in fact, what we are looking for is understanding rather than information. So how do you teach the facility for understanding? It has to go beyond the information, I think you provide the information, you provide evidence and then it is what happens next [...] It is where real education takes place (I, A1).

The absence of teaching for understanding echoes strongly the 'banking concept of education' enunciated by Freire (1996):

Instead of communicating, the teacher issues communiqués and makes deposits which the students patiently receive, memorize and repeat [...] In the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic of the ideology of oppression, negates education and knowledge as processes of inquiry. The teacher presents himself to his students as their necessary opposite; by considering their ignorance absolute, he justifies his own existence (53).

In the same vein, to Trigwell and Prosser (1996a), the approach of knowledge transmission:

is one in which the teacher adopts a teacher-focused strategy, with the intention of transmitting to the students information about the discipline. In this transmission, the focus is on facts and skills, but not on the relationships between them. The prior knowledge of students is not considered to be important and it is assumed that students do not need to be active in the teaching-learning process (80).

Trigwell and Prosser (1996b) have also demonstrated the strong relationship between conceptions of teaching and approaches to teaching, and, further, students' approaches to learning (Trigwell et al.1999). In that sense, teachers who have traditional conceptions of teaching, do not take into consideration creative forms of learning beyond passive transmission. The opportunity for students to gather and critique information, solve new problems, think critically, engage in enquiry and explore creative learning possibilities, is lost.

The nature of knowledge remains propositional and other forms of knowledge are neglected, despite often being necessary to the process of understanding. As one participant argues:

Universities are conventionally regarded as seats of generation of knowledge, and of transmission of knowledge. In research that's the process of generating new knowledge. Research is seen as a creative method and the education process, which follows, should be a creative process. Obviously it is not. It limits the definition of knowledge to propositional knowledge whereas procedural knowledge, embodied knowledge, tacit knowledge is equally involved and they don't have a really understood place within universities. The university has to do full justice to the concepts of intelligence, knowledge and understanding (I, A4).

By internalising traditional methods of teaching, students and teachers consequently constrain themselves in their teaching and learning processes. As Freire (1996) pursues: "The students, alienated like the slave in the Hegelian dialectic, accept their ignorance as justifying the teacher's existence - but, unlike the slave, they never discover that they educate the teacher" (53). Teachers, themselves, in such a model, cannot benefit from their students' experiences and learn from them.

Expertise is fundamental in order to become a member of a disciplinary community, with potential members having to go through numerous rituals in order to integrate into the disciplinary 'tribe' (Becher and Trowler 2001). The PhD process is one such fundamental ritual, by demonstrating sufficient levels of attainment of knowledge, but also acquisition of skills, disciplinary norms, and methodologies. Such academic attributes shape disciplinary approaches to teaching as well as research. "Teaching expertise [...] It is about the historical structure; you do a PhD, you become an expert" (CG2, A2).

As stated earlier, Sawyer (2006) sees academic methodology, knowledge mastery, and creativity not as contradictory but rather essentially linked. Effort, practice and a solid knowledge base within which that practice is situated are vital to allow creative approaches to emerge. One participant stated that disciplinary knowledge and methodology mastery are *sine qua non* conditions to creativity. As he mentioned: "I mean if you look at mastery. You have to master the methodology, you have to master the skills [...] Without mastery of the material, you cannot write a beautiful sonnet. So mastery of the discipline whatever it is, is a necessary precondition for creativity of a high order" (I, A1).

Most of the academics I spoke with, nevertheless, still perceived academic methodological rigidity as rooted in conservative disciplinary traditions. To them, these traditions restrict their teaching practices. To one participant's question: "Is there any disadvantage of being creative?" (FG, G1, A3); another participant answered: "You have to go against tradition I think!" (FG, G1, A1). Creativity is therefore perceived as in contradiction to tradition:

I would say that the tradition in my discipline is quite conservative, risk averse, and that in my discipline curriculum tends to be considered almost exclusively in terms of syllabus. But I think that may be true more widely in the academic world. I also think that when you look at a large community of practice like 'all academic mathematicians' it is unlikely that its practice will be found to be radical. 'On average' it will be conservative (CG, Q1, A3).

In addition, traditional disciplinary methodologies seem to contradict the processes of imagination and discovery at the origin of any creative activity:

Creativity allows discovery of new possibilities, which sometimes are discovered through accident and through mistakes; and increasingly academic approaches, right across the whole wave of academic disciplines, disallows the possibilities of accident or mistake. It works against intuition. It works against hunches that may or may not be correct and the great difficulty there seems to me that every area of human, the great leaps forward have been facilitated by imagination and creativity and by a moving beyond what the methodology of a particular discipline or academic approach would have thought possible at the time. The great thinkers in science, literature, in culture, have worked, it seems to me, more frequently through a leap of imagination rather than through the logic of exploring a particular method (I, A1).

Lindblom-Ylänne et al. (2006) have pointed out disciplinary traditions within teaching approaches – e.g. teacher-focused approaches within ‘pure hard’ disciplines (as described above) versus student-focused approaches within ‘soft applied’ disciplines (as described above). Yet, some participants believed academics can individually introduce novel methods if they so wish: “Teaching design is a solitary activity in my college, and quite influenced by tradition and accreditation. However, there has been no resistance to the introduction of novel methods by some staff” (CG, Q1, A6).

In that respect, Roxa and Martensson (2009) put forward the significance of other Lindblom-Ylänne et al.’s (2006) findings: the variation in teaching methods and practices across a particular discipline, and in teaching approaches of one singular academic member according to the context he or she is in. Such opens the “possibility for development in teaching” as “teaching is not entirely determined by the discipline but also the teaching context” (Roxa and Martensson 2009: 210). Room for change in practice is possible if the context changes, such as the technological surrounding or the social interactions between colleagues in a department.

Participants argued that disciplinary communities' social recognition has also a strong influence on individual academic practices. These communities, as gatekeepers of tradition, do not systemically value creative teaching practices. “Colleagues’ expectations might be another problem as well as time management or logistics challenges if you want to try creative teaching approaches” (FG, G2, A2). Another made a similar point: “People working with you, colleagues, can also prevent you from being creative. There are no more limitations!”(CG2, A3). Academics emphasised the importance of peer respect for teaching practices, which itself can feed a reluctance to experiment, to do something radically different: “I think it is much more difficult to share a creative vision. A lot of time there is no word for it [...] It is really hard to articulate it and at the same time doing it in a way that your peers continue to respect you and your vision [...] So you are talking about constraints. A constraint on creativity is social pressure!” (I,A8). Within disciplinary communities, social pressure can then become a serious limiting factor.

Hence, macro-level institutional structural constraints and micro-level disciplinary structural coercion seem to have an important part to play in academics’ creative teaching limitations.



“I arrived at the Huston School of Film located on the other side of the river, on NUI campus. I took the stairs and I heard someone talking to another person with a particular timbre of voice. My interviewee saw me and asked me if I was Aurélie. He welcomed me. He immediately appeared as a dynamic and busy businessperson. He asked me very pleasantly about my name and its meaning, and if I wanted a cup of coffee or tea...” 27.10.09

6.4. The paradox of structural constraints

There is then, it would appear, somewhat of a paradox. On the one hand, the participants often blamed structural limitations (whether the norms and expectations of the discipline, or the institutional administration and management) as the reason why most (if not all) of their teaching followed very traditional approaches. Yet in contradiction to this, the most often quoted reason why the CG found it difficult to develop a collaborative creative activity was the apparent lack of structure.

Most argued that creativity is in juxtaposition to traditional practices within academic disciplines: “anti-disciplinary tradition” (FG, G2, A1), as one put it. It can only emerge when teachers reach a space “beyond curriculum and boundaries” or “beyond the comfort zone” (FG, G2, A2). Yet, “there is always tension [...] you need structures around creativity to make it practical but then does it threaten the creative process or not?” (FG, G1, A3). Participants acknowledged although structure can be an obstacle to creativity, it is however a necessity for creativity emergence. One participant mentioned: “Creativity is killed by the assessment process but you need a real infrastructure which facilitates creativity!” (CG2, A4). In that sense, another participant stressed creativity can happen within educational structures. As she argued: “I think sometimes people see creativity as being totally free, without structure and I think that’s tremendous but I think within education it is not possible to have no structure. I think being creative it is to stay within the rules but being creative within the rules” (I, A6).

The CG experience confirmed that structure can facilitate the emergence of creative practices in the context of academic group work. As I mentioned already, group participants failed to engage in a concrete creative collaboration, despite the freedom they were given to do so. It became clear that the absence of a clear structure or set of tasks and the sudden demand for self-organisation were difficult to come to terms with: “I had initially some reticence and discomfort with the lack of a clear structure or

objective” (CG, Q2, A4). Another expressed frustration:

I was expecting that either someone would lead us through a structured exploration of creativity or that we as a group would agree an approach on how we could investigate creativity and that this would then lead us to arriving at outcome(s) we had targeted up front. Instead, we were left to find our own way and if there was a planned group process, it was not obvious to me what it was. I had no idea if there were expected outcomes or what they might possibly be. This I found frustrating as we made our way through the sessions (CG, Q2, A1).

As response to the limited progress, as already introduced, the facilitators suggested that participants might consider presenting a series of Pecha Kucha⁵³ talks. Interestingly, this approach is highly structured, tightly constrained and yet provides an opportunity for creative expression within the ‘rules of the game.’ This suggestion was universally welcome: “Concerning the structure, you are right. The Pecha Kucha format was a really different one than the ones we were used to. We've been asked to do something in that space and it was about almost everything we wanted to be about [...] So there was place for creativity but a quite tight place for delivering it” (I post CG, A1). The feedback from the first Pecha Kucha session was so positive that those who were unable to attend requested a second opportunity to participate. In one case, a participant sent an unsolicited email to thank the facilitators as she greatly enjoyed the experience⁵⁴.

These highly structured and scheduled sessions involved satisfaction among the group. Academics engaged in a creative process in opposition to the overall CG process. They perceived then the presentation exercise as a successful activity. Whilst many participants had experienced frustration at the previous, open, unstructured approach to the group meetings, a few did reflect on the experience as being akin to the reality of creative processes. As one, in particular, commented:

The group work process itself was a creative process. Many times during the process I felt frustrated with, I guess, a lack of direction. I felt that we could be much more productive. I now realise that these frustrations are very likely to accompany creative endeavour. The possibility of failure is

⁵³ Pecha Kucha is a presentation format based on strict adherence to a deck of twenty slides, each on-screen for twenty seconds, the timing being controlled automatically by computer.

⁵⁴ Email from participant A12 (post CG Pecha Kucha Session2)

always with you when being creative. Many of my work practices build in an optimisation of chance for success and thus are very outcome driven. I feel uncomfortable when I do not know where I am going and the perceived lack of direction in the group sessions led to discomfort for me. But, this discomfort, frustration was good. It is probably a necessary part of a creative process. The products/outcomes of creativity are emergent and thus the processes that facilitates creativity are those that provide possibilities and opportunities for novelty etc. The process we engaged in had those possibilities. I do not know that we produced anything creative but we definitely engaged in a creative process (CG, Q2, A1).

The same participant pointed out the power of self-reflection to solve the tension between creativity and structure. Although, the CG was a creative process, he suggested the lack of opportunity for academics to self-reflect prevented them from crystallising some specific creative output, and engaging in concrete creative practices. As I mentioned in chapter 4, participants could have used self-reflection to create for themselves the structure needed to support the emergence of creativity. As he claimed:

It is very clear to me that too much imposed structure inhibits creativity. However if there is no structure the sessions lack focus, direction etc. If no structure is provided the group needs to be self-organising and self-directing and for this to happen there must be feedback loops in the process. Reflection is one way of building in a feedback loop. I believe that if we had the opportunity to reflect on what we were about we could begin to self organise and thus generate both level and types of structure(s) that would support the creativity we were about (CG, E, A1)⁵⁵.

In retrospect, then, the facilitators could have more overtly encouraged self-reflection (for example, using journaling techniques perhaps), but whether that, at the time, would have been pursued by the participants, who had frequently expressed their timetabling and workload pressures, is an open question.

Critical self-reflection could be then one possible solution to solve the tension between creativity and structure. In the case of constraining structures, it can give individuals the flexibility to reflect on the structures within which their perspectives and actions are situated, deconstruct it and ultimately disempower such forces (Giddens 1984) towards new

⁵⁵ Email from participant A1 (post CG and interview with academic 1)

possibilities. Moreover, self-reflection could provide the necessary scaffolding to build towards creativity.

As argued in Chapter 5, perceptions of *identity* lie at the heart of understanding of self. Critical self-reflection on actions, attitudes and situations is essential to question positioning in terms of power, levels of autonomy and scope for change. Within the academic context, academics' approach to their work, whether it is research or teaching, manifests disciplinary norms and through such action reinforces their identity as a member of that community. Critical self-reflection can provide potential for them to interrogate their relationship with the disciplinary structures and challenge accepted notions of specific identity.

6.5. Conclusion

In this chapter, I have explored the emerging reflections of the participants, notably those of the CG as they struggled to find voice and direction beyond their normal professional environments and how discomfort arose in the absence of clear structure, before they ultimately found a renewed energy through enforced creativity within the extremely narrowed confines of the Pecha Kucha experience. The paradox of structure being required in order to facilitate creative freedom and expression was not lost on the group. Tools for critical self-reflection, in which the dimension of identity takes an important place as developed in the following chapter, may provide an appropriate scaffolding for subsequent development.

Chapter 7: Identity

7.1. Introduction

In this chapter, I will further explore the reflections of academic staff on creativity, focusing on perspectives on their constructed identity. As we have discussed previously, disciplinary structures are constraints and limiting factors on the scope for creativity. Further, disciplinary cultures are shaped not just externally but also from within by the practices and actions of the members of those disciplines (Fanghanel 2009).

Blackmore and Kandiko (2010), emphasise that the concept of identity is a central term in social psychology that relates to the interplay between individual and context. More precisely, they understand self-identity in Giddens's (1991) terms as "a reflexively organised endeavour [...] which consists in the sustaining of coherent, yet continuously revised, biographical narratives" (5). Consequently, the formation of self identity is embedded in the construction of personal narratives that are possibly reshaped contingently to the individual's self-reflection on their actions and experiences. Earlier, we saw that Csikszentmihalyi (1996) argued that creativity is the result of an interaction between the domain, the field and the person. Therefore, the interplay between the individual and context is a critical component in the emergence of creativity.

Malcolm and Zukas (2009) argue indeed that "purposive disciplinary practice across time and space is inextricably entangled with, and fundamental to, academic experience and identity" (504). As this chapter will develop, the academics who participated in my research constructed personal narratives in which creativity and emotions play a role in making sense of their academic being and practices. However, the contrast between an espoused conception of creativity as intrinsic to academic work and the reality of routine practice, particularly in teaching, became evident through discussion and self-reflection.

According to Taylor (1989), the notion of identity is intrinsically related to *the orientation towards the good* within a moral space, in which the individual can find an answer to what makes his/her life meaningful and fulfilling. The individual through his/her quest for good aims towards a higher moral state

in relation to his/her actions within life. In order to do so, the individual no longer contemplates and follows the rigid order of the outside world but rather has to reflect on experiences. He/she questions his/her position towards the good and acts on it in order to reach this higher moral state. In that sense, individual empowerment is intrinsically connected to the processes of self-understanding and self-reflection. These processes can incite individuals to disengage from the moral framework (i.e. in the current context, academic disciplinary traditions and norms), the conveyor of beliefs, habits, traditions and narratives, in which his/her identity had been initially shaped.

7.2. Creativity, individual and emotions

One area of research (Collingwood 1938; Flanders 2004) has established a strong connection between creativity and emotions. Flanders (2004) explains, in the romantic tradition, that good and truth are inherent to human nature. Individuals access them via their natural way of being through their emotions. Romanticism offers then a theory of the creative process as a personal exploration and an authentic expression of emotions. In my study, the majority of academics perceived creativity as intrinsically related to the notion of human nature. As one participant said: "I think everybody has a creative capability within them but they can't really be taught that. They can be encouraged to use their creativity but it is not something that is taught because it is in each person. I think it is part of the human condition" (I, A1). Others commented: "Creativity goes right to the heart of what it means to be human" (I, A4), and, "I think that creativity to a certain degree is intrinsic to people" (I, A8). In that sense, not only do creative teaching approaches consider students as learners but also as individuals with personal histories. As one participant claimed: "It is about the whole person, like his present, his past, his future, his family, his friends and all the rest [...] From a teaching point of view, I don't think it matters where and what you are teaching. You can be creative teaching history or whatever. I think it is about the person as opposed to the subject" (I, A2).

Moreover, creativity combined with emotions are seen as part of human beings' empowerment process. Vandervoort (2006) insists on the importance of creativity and emotion as part of the curriculum as it leads teachers and students to intellectual empowerment, positive personal and societal outcomes, an aspect echoed in my findings: "Creativity is an appropriate attribute for every human being, especially university graduates who are supposed to be intellectually empowered" (CG, Q1, A3). In that

sense, 'creative teaching' and 'teaching for creativity' (NACCCE 1999) aim at providing students with life skills to evolve in society. By contrast, formal ways of teaching are dedicated to students as learners rather than as human beings who are part of the world. As one participant stated:

I believe that the most important attribute our graduates need is to be creative and innovative and that the need to experience creative and innovative processes about them [SIC] is essential to develop skills in these areas. However, in chemistry creativity and innovation are generally seen as incorporating the creative and innovative products of research in chemistry into the curriculum. The processes of creativity and innovation are generally ignored. The product and process are not distinguished. The opportunity to introduce creativity and innovation as ways of being in the world is not appreciated (CG, Q1, A1).

Key to both 'creative teaching' and 'teaching for creativity' (NACCCE 1999) is bridging theory and personal experience. Students' learning of theoretical knowledge becomes relevant to the personal experience they acquire as individuals evolving in the world. Amongst the students I interviewed, this point was raised:

It makes it more concrete you know, more real or you think more clearly about it. You can relate it to something that you have experienced. When you can relate to your personal experience, it makes the theory more real and clear (G1, S3).

And it is reflected by our own experience. It is what we are doing here; we are educating ourselves, especially in our field of community development. It is always good to reflect on what you are learning! (G1, S1)

It is important to bring theory home as well to experience it in our own life. You can relate to it as opposed to just some experiences far away in another country. So you can understand it in our own way and go this is the way it is in our country too (G1, S2).

[...]

It is this idea of the baggage! We all have our own baggage and that's sometimes the way to understand things through in relation to that baggage (G1, S1).

Furthermore, some researchers (Woods and Jeffrey 1996) suggest creative teaching is an art form in which intuition, expression and emotions play a

fundamental role, again, echoed within the current cohort of participants:

For me, creativity does not mean doing wacky things in class just for the sake of it. Rather, it means thinking about ways to tackle problems, to deal with issues such as 'constructive alignment', etc. [...] And to do so in such a way that the solution is exciting. Anything that keeps my interest up is creative, and whether that's teaching Old English vocabulary by referring to The Lord of the Rings, or getting students to make up their own insults based on compounds of OE words, that's fine. Creativity is about enthusing people (including myself) [...] You don't teach by tapping into someone's intellect. You teach by making others feel enthusiastic about the same things you do. The only way to do this is to present material creatively, and to encourage students' own creative responses (CG, Q1, A7).

Halpin (2009) suggests that the teacher's enthusiasm and motivation makes a worthwhile difference in classroom. "Motivation is a really big issue at the university level [...] How do you improve the motivation? How do you improve the teaching? If you think about improving value in teaching, you can write a subtitle which is 'increase motivation and engagement' of teachers" (I, A4).

Vandervoort (2006) argues that a teacher's ability to pay attention to the emotions emerging within the classroom, can help nurture the development of students' self-confidence and encourage them to become critical and active learners. Such a teaching style will foster enthusiasm, which will, in turn, sustain the teacher's own motivation:

I would say that I try to be creative in terms of my teaching effort as much to prevent myself from becoming bored and to sustain my enthusiasm as in response to student behaviour. I believe that we can always improve what we are doing even if it is not failing, and that we can find out whether a certain idea might work by trying it out (CG, Q1, A3).

Further, 'joy' is recognised as a legitimate emotion in truly creative approaches to teaching and learning: "Creativity means for me curiosity and the ability to make me see things with new eyes, exploring new territories and ideas - like a child - with great joy and the feeling that the world is a place of endless knowledge and wonder" (CG, Q1, A8). In addition, students' joy experienced in their learning process, inside and

outside the classroom, is also important: “I think that going to university has to be about the joy of learning, it has to be more than coming out with a degree. There must be more, it is about being well-rounded, joining societies, all kind of social life and all kind of other things beyond the program and I think those things are really important for students” (I, A6).

Satisfaction and a sense of fulfilment also feature in these contributions: “Creativity means to have the freedom to look at problems, events, my environment with an eye toward what can I change, what can I do which is different and what is going to provide me with a certain level of enjoyment, satisfaction and fulfilment” (I,A8).

Halpin (2009), Elton (2000), Rowland (2006), and Palmer (2007), all draw attention to how teachers convey their love and passion for their subject areas, and their joy in teaching is intrinsic to good teaching. This arose in the experience of one of the participants whilst he served as Head of Department:

I was Head of Department for a couple of years and I was telling teachers: 'First of all you have to teach a subject that you are really interested in' [...] And people would say: 'I am teaching four subjects and one of them I have no interest in but somebody has to teach it'. And I would say: 'But no, if there is nobody interesting in teaching that topic, we will change it'. And they would say: 'But no it is expected!'. And I would say: 'I would rather like you teach what is not expected but what you love rather than you teach the subject that you hate' (I, A5).

Moreover, Freire (1998) stresses that a joyful teaching experience does not contradict disciplinary methodological traditions:

Teaching, which is really inseparable from learning, is of its very nature a joyful experience. It is also false to consider seriousness and joy to be contradictory, as if joy were the enemy of methodological rigor. On the contrary, the more methodologically rigorous I become in my questionings and in my teaching practice, the more joyful and hopeful I become as well (125).

He sees the joy of teaching as a symbol of “openness to life” (ibid: 125) and “care for well-being of educative practice” (ibid: 126), which encourages political struggle in favour of students’ and teachers’ rights. In that sense, educative practice is a practice of caring and an “act of love” (Darder 2003:479) which serves as a tool for liberation against domination and

towards human progress.

Institutional and disciplinary structures, however, do not explicitly value feelings (or at least their expression) of enthusiasm, joy or satisfaction that can emerge from teaching practice. This is possibly reinforced in a context in which teaching scholarship, as previously stated, is not valued by the system (Pratt 1997). Chapter 5 already referred to one participant who confirmed that: "Creativity is hard work but not rewarded. It is self-satisfying to be creative but HE does not foster it. It is personally satisfying but you can get away without doing it" (CG2, A2). Students in my study also suggested that feelings, in terms of learning processes, are not taken into consideration within the classroom context. As some participants discussed:

I don't know if you've seen it but I tried to edit the video where your teacher says: 'How do you feel about that?'. I think she says it three times. What do you think about that? (G1, R)

More than three! (G1, A1)

[...]

Your feelings are somehow questioned. Do you think it is something you can see in many classrooms? (G1, R)

It is a good point (G1, S1).

It depends I think, up to now in education we are used to teaching through lecture. We listen and we are taking information, we write it down. We are not asked about our own opinions or what we think, we don't have the opportunity to question (G1, S2).

Or feel! (G1, S1)

Collins and Amabile (1999) define intrinsic motivation as "the motivation to engage in activity primarily for its own sake, because the individual perceives the activity as interesting, involving, satisfying, or personally challenging; it is marked by a focus on the challenge and the enjoyment of the work itself" (299). Intrinsic motivation is also a fundamental component of creativity. In the HE context, motivation is *sine qua non* to undertake creative approaches to teaching. As one participant said: "It is not enough to have expertise, to have the skills. You need to be motivated to be creative because there is an effort involved in coming up with new ideas and there is a particular effort in taking these efforts into action, which is where people fall down" (I, A7). Consequently, the absence of regard for

emotional aspects of teaching and learning may weaken the motivation of teachers.

Lynch and Baker (2005) call for a greater appreciation of the intrinsic role that emotions play in the process of teaching and learning to open a space for students and teachers to talk about their feelings and concerns. Traditionally, however, academia privileges a certain type of knowledge, mainly theoretical and supports the development of specific cognitive academic skills (Sternberg 2010). Embodied, emotional or visceral forms of knowledge are usually less valued, despite their potential linkages with creative potential:

A lot of what has been written about creativity is about creative thinking, a particular kind of thinking. It reduces it to a desperately reductive term of creative thinking. So when De Bono writes about lateral thinking, it is interesting stuff and in his time it was a significant cultural development but it debilitates the creative process because it supposes that thinking is the only intellectual process. One of the learning points through art is to do not just with mental intelligence but also emotional intelligence and something which has not been yet theorized, which is visceral intelligence. You know the notion of intelligence associated with the head, the heart and the gut and this is where really interesting new work is being done [...] The point I am making is in WB Yeats [...] I've been reading an essay where he talks about thinking or rather being intelligent through the flesh and being in the world [...] Merleau-Ponty also talks about the importance of being in the world, of feeling the presence of the thing in us in a visceral way. That is what he calls 'carnal formula' (I, A4).

As we have seen, however, critical pedagogy scholars (Freire 1998; Darder 2003) do consider emotions as an essential part of creative educative approaches since they are a crucial source of critical expression, self-understanding and self-reflection on practice.

7.3. Academic identity and creativity

Josselson (1996) suggests that "identity is the ultimate act of creativity - it is what we make of ourselves" (27), and Taylor (1989) described how identity makes sense of individuals' existence and practices. Waterman et al. (2003) also recognize that emotions and creativity play a fundamental part in identity formation:

Feelings of personal expressiveness accompany activities that reflect one's core sense of being. When engaging in personally expressive activities, individuals experience (a) an unusually intense involvement, (b) a special fit or meshing with the activities, (c) a feeling of intensely being alive, (d) a feeling of completeness or fulfilment, (e) an impression that this is what the person was meant to do, and (f) a feeling that this is who one really is (1449).

The Pecha Kucha sessions organised with the CG provided opportunity for participants to demonstrate their connection with these ideas by asking them to speak on what inspires them. Such a simple theme opened up a rich vein of personal and professional reflection and self-expression. The format seemed to lend itself towards acting as a scaffold for personal narratives to emerge.

The participants all demonstrated passion, enthusiasm and motivation for their subjects. One (CG, A4) used a scientific invention, the Wright brothers' aeroplane⁵⁶, in order to illustrate his story. Another (CG, A3) entitled her presentation 'Stellation' - an aspect of geometry based on construction of objects from polygons - and how fascination with this intriguing process captured her imagination. A third (CG, A1) spoke about creativity in chemistry; chemists after all being people who create things and are involved in an intrinsically creative process.

In 'The story of Mii: Mathematical Identity and Inspiration', the audience heard from one colleague:

I want to talk about me and mathematics is involved then. It goes back to my education [...] Grammar school [...] High school [...] My PhD [...]. I always loved the rightness of math, loved the steady safety, the clarity of it. The journey I made alongside my personal journey led me to teaching. I knew I wanted to teach [...] I am still on the journey [...] Students struggle with mathematics but I struggle too [...] I wanted to help other to learn mathematics; I think it is what makes me who I am (CG, A2).

Another stated: "This is just a story of me and how I got here!" (CG, A7). Three main themes were covered in her presentation⁵⁷: her childhood, her studies and her professional life engagement. She talked about her childhood and her sickness, which led her to a deep engagement with

⁵⁶ See footnote 38

⁵⁷ See footnote 38

literature. Then, she mentioned her studies and the teacher who inspired her as a student. In addition, she dealt with her students and colleagues, who are a recurrent source of inspiration in her academic life.

One participant (CG, *F1*) spoke of his youth as a political activist, but also the poetry and landscape of his home country as sources of inspiration for his intellectual life. He also highlighted his fascination for the learning process that he initially explored whilst volunteering in literacy and that he still observes today when he sees his children studying.

As I argued in chapter 5, Taylor believes that the formation of our identity and the sense of who we are, require inescapably that we understand ourselves in narratives (Taylor 1989). Clearly this Pecha Kucha experience allowed such narratives to crystallise and then unfold. The linking of creativity, identity, passion and motivation were made clear to all through this exercise.

All in all, the Pecha Kucha exercise demonstrated academics do perceive creativity as a meaningful component of the formation of their academic identities, making sense of practices and attitudes, linking aspects of 'being' and 'doing'. However, what is interesting to note is that for many, in practice, creativity is either associated with personal journey or research work, and although there may be an aspiration to be creative in terms of teaching, they feel that the scope for such is limited by the structures, the requirements of the system and the weight of disciplinary traditions.

7.4. Disengagement from disciplinary structures – possible identity reshaping

According to Taylor (1989), the act of disengagement from the surrounding structure can be an effective means of empowering individuals and to reshape identity. Disengagement can come through self-reflection. Such reflection requires autonomy from structure. In that sense, an individual's perception of what makes life meaningful and fulfilling can be altered and transform their academic identity.

'Disobedience' towards disciplinary power may be manifested through new approaches to teaching that differ radically from the traditional practices of the particular subject domain. Conservative structures are risk-averse and 'failures' and 'mistakes' are looked on, not as valid experimentation, but as unacceptable. As one participant stated: "The reality is that people are not

really rewarded for taking these risks” (I, A7). Another expanded: “So to be creative you have to be disobedient, you have to be capable of not just taking risks but taking imaginative risks. You have to feel at home and comfortable with being wrong; you have to see failure as a success” (I, A4).

This holds true for students also, where the expectation is to perform to a certain standard throughout, under pressure constantly to ‘pass’ and little allowance is made for personal development. The CG group discussion revealed that some staff members believe that university does not adequately develop student identity and selfhood. They have emerged from a system which is driven by examination performance and constantly seeking to obtain high scores. “Students who are coming to Irish university are far too young and then not sure why they are here. They don’t know themselves. They are not self-conscious” (CG, A9). As another participant added: “You can be wrong, you can fail [...] That’s what students are missing [...] That’s not the end of the world, that’s part of the process if you want to learn about yourself” (CG 2, A2). Paradoxically, students are generally expected to conform rather than disobey within the university system. Clark (1998) highlights such a paradox: “Education is a seriously funny business. We demand that students conform to the formalities of the university and yet, we secretly hope they will practice wild, if subtle rebellion”.

Further, one participant highlighted the relationship between creativity, ‘disobedience’ and the question of individuals’ role in society: “You have to be a naughty little girl or a naughty little boy otherwise you are not going to be a creative [...] it involves being socially disobedient [...] It transforms the notion of what it means to be a citizen. Creativity goes right to the heart of what it means to be human” (I, A4).

In reaction to the danger of increasing market-oriented trends, Nussbaum (1997) argues indeed the role of the university should be the cultivation of humanity in students for them to become autonomous citizens. Drawing on Greek and Roman conceptions of education, she advocates a ‘liberal education’:

[...] in that it liberates the mind from the bondage of habit and custom, producing people who can function with sensitivity and alertness as citizens of the whole world (Ibid:8) [...] The idea of ‘liberal education’ – a higher education that is cultivation of the whole human being for the functions of

citizenship and life generally (ibid: 9).

To her, the cultivation of humanity requires to develop in students a first capability that is 'critical examination':

First is the capacity for critical examination of oneself and one's traditions - for living what, following Socrates, we may call 'the examined life'. This means a life that accepts no belief as authoritative simply because it has been handed down by tradition or become familiar through habit, a life that questions all beliefs and accepts only those that survive reason's demand for consistency and for justification" (ibid:9) [...] We must produce citizens who have the Socratic capacity to reason about their beliefs [...] Democracy needs citizens who can think for themselves rather than simply deferring to authority, who can reason together about their choices rather than just trading claims and counter-claims (Ibid:19).

In that respect, there was a strong sense that, whatever the discipline (and the reality of traditional content-focused teaching and assessment methods), academics have a key role in enabling students to become independent learners: "The ability to be independent learners rather than being guided learners is important" (I, A7); "We need to encourage students to ask more questions, to learn by themselves. The most important is about 'how I learn by myself'" (CG2, A1).

As a result "schools that help young people speak in their own voice and to respect the voices of others will have done a great deal to produce thoughtful and potentially creative democratic citizens" (Nussbaum 2005:4). In the same vein, a shared view emerged among participants on the relationship between creativity in learning and autonomy. As one participant expressed:

I believe that creativity is essential to learning. The students will benefit best if they can learn how to learn for themselves. So rather than someone telling them what they should know, how they should do things and the whys of their discipline; they should have the opportunity to explore this for themselves and discover themselves as learners. Creativity, innovation and learning are all processes that can be developed by engaging in them. One of our jobs as educators is to provide opportunities for the students to engage with these processes. The chemistry content and method are the vehicle by which we deliver this engagement. Thus, the students develop life skills while engaging with the

chemistry they are learning (CG, A1).

Further, one interviewee from the field of creative arts pointed out:

I think the goal in our field is to create the individuals with confidence that they can become creative on their own. So they need common skills to do that but also the freedom and sense that they are autonomous individuals (I, A3).

Also, another stressed that creativity and freedom can lead towards change in students' actions:

Creativity means to have the freedom to look at problems, events, my environment, with an eye toward what can I change, and what can I do which is different (I, A8).

As previously stated, Trigwell et al. (1999) showed the connection between teachers' approaches to teaching, and students' approaches to learning. Quality learning requires conceptual change/student-focused approaches to teaching, where:

The teacher is the one who encourages self directed learning, who makes time (in formal "teaching" time) for students to interact and to discuss the problems they encounter, who assesses to reveal conceptual change (not only to judge and rank students), who provokes debate (and raises and addresses the taken-for-granted issues), who uses a lot of time to question students' ideas, and to develop a conversation with students in lectures (ibid:58).

However, encouraging critical thinking in students requires the teachers to also critically examine their traditional teaching-focused approaches, based on transmission of knowledge, and move away from them. In that respect, Rowland (2006) makes this point also: "Inasmuch as academics expect a critical engagement on the part of their students, one must expect no less of them [i.e. academics] as they struggle to understand their own professional practices. If higher education is a critical business for students, so must it be for those who teach them and conduct research" (75). Further, one participant stressed:

Empowerment of students goes through empowerment of teachers: We need to empower the students to take charge of their own learning and reward engagement in risky processes. We need to be willing to do this ourselves, take risks with how we teach, be willing to engage in processes that do not have guaranteed results. Be

living models of creativity in action for the students (CG, Q2, A1).

As the discussion unfolded, the value of a more critical self-reflection and a challenging of accepted practice began to be realised and expressed among participants: “There is a need of self-reflection. In order for your students to be creative you need to be creative yourself and you have to think about new ways of doing things” (FG, G1, A1). However, as another commented:

Within the Acadamh, we use the language portfolios to try and support student learning and the notion of the reflective learner is central to our teaching philosophy - but in practice this may not always happen, and often depends on the teacher. I myself, indeed, while understanding the idea of the reflective learner and embracing it, sometimes find it extremely difficult to develop this notion in my own classes (CG, A10).

7.5. Conclusion

Here we have heard the voices of academic staff, and notably academics from the CG, on the possible relationship between creativity, identity, and critical examination in terms of learning and teaching. This later capacity seemed to be valued as a crucial support to the role of the university that is nurturing autonomy in individuals, and potential for creativity and change in terms of practice. Without such, there is a danger that the university system reproduces itself and narrows its scope, and potential for wider society. The CG experience however revealed changes in teaching practices do not happen so easily. The next chapter explores further issues that can explain such limitations.

Chapter 8: Imagination

8.1. Introduction

Along with 'critical examination' as previously developed, Nussbaum (1997) develops two other capabilities that university should nurture in students to develop their humanity and autonomy as citizens of the world. One is what she calls 'world citizen' that refers to development of their awareness of cultural difference.

Citizens who cultivate their humanity need, further, my second element, an ability to see themselves as not simply citizens of some local region or group but also, and above all, as human beings bound to all other human beings by ties of recognition and concern [...] Cultivating our humanity in a complex interlocking world involves understanding the ways in which common needs and aims are differently realized in different circumstances (ibdi: 10).

The other one is what she calls 'narrative imagination': "This means the ability to think what it might be like to be in the shoes of a person different from oneself, to be an intelligent reader of that person's story, and to understand the emotions and wishes and desires that someone so placed might have" (ibid:10-11). In that sense, Nussbaum explains that factual knowledge is not enough for individuals to understand others' experiences. Such understanding requires them to use their imagination.

To her, the combination of these three capacities ('critical examination', 'world citizen' and 'narrative imagination') constitute the basis of an education that develops creativity, humanity, and autonomy in students. Such autonomy can enable them to question the world in which they live, and support their potential for change as students, in their learning approaches (but also as human beings) in their actions as citizens. Yet, "when education is discussed in most modern democracies, the focus is on education for profitability in the global market, and we rarely see a focus on the education of the imagination and the critical faculties" (Nussbaum 2005:3).

As the capacity of 'critical examination', it may be argued that developing 'awareness of cultural difference' and 'imagination' in students, might also require fostering such capabilities in teachers. Interdisciplinary practices seem to have the potential to support the development of such. Based on the voices of academic staff, and notably of the CG, I examine further the scope of interdisciplinary collaboration for developing awareness of disciplinary cultural difference, and imagination in academics towards creative practices.

8.2. Creativity, exploration of the unknown and discovery

A shared perception emerged among participants on the relationship between creativity and newness, and exploration of the unknown. To the question, 'what does creativity mean for you?' (CG, Q1), one participant answered:

Newness, difference, unexpected. Generating new things or unexpected things. Old things presented in a new or unexpected way or in a new or unexpected context. New or unexpected ways of doing things. New or unexpected in this context. Doing something in a way that it has not been done before, not the normal way, an unexpected way (CG, Q1, A1).

Newness can emerge from the exploration of the unknown. One of the interviewees suggested that:

Creativity is not chaotic [...] It uses coherence to go beyond what is immediately coherent, to explore the unknown. It is the unknown and how we approach it. [...] Every child wants to understand what is incomprehensible and uses the known to explore the unknown (I, A1).

In that respect, another interviewee gave his definition of creative education: "Whatever is creative in the subject, it is what is not in the subject. So if we are engaging in a creative education process, it is not a matter of transmitting knowledge to you that you don't already know, it is exploring what you don't know and what I don't know" (I, A4).

Exploration of the unknown seems to require individuals to be:

[...] open and looking at possibilities. You can choose to say 'no no no, 'nursing' we are so special that we have nothing to learn from anyone else'. It does not make sense to me! I think it is about being open, going and hearing new things [...] Creativity is

to be open to opportunities and see the potential (I, A6).

It is also driven by curiosity, which is fundamental to the creative process. To the question 'what is creativity for you in relation to your discipline?' (CG, F2), one participant highlighted the close relationship between curiosity and the creative process: "In maths, it is about seeing problems and trying to explain them. I think there is a close relationship between maths and curiosity. You might have to really want to know if you want to have a chance to be creative in maths. It is being observant as well and this idea of resistance, this kind of believing that it could be an explanation"(CG, A3). Whilst another reflected: "Creativity means for me curiosity and the ability to make me see things with new eyes - exploring new territories and ideas" (CG, Q1, A8).

Further, an interviewee quoted Einstein: "I never came upon any of my discoveries through the process of rational thinking" (I,A7). Another participant related the discovery process to magic, which contradicts rigid disciplinary methodologies based on rational and determined criteria. As he argued:

Creativity may involve magical thinking, an inductive reasoning process. It may involve creation of fantastical elements [...] If you know all the ways and something does not work then you get frozen, you get paralyzed and actually not knowing why something is going to be so difficult is what leads inventors and creative people to be successful (I, A8).

In that respect, one interviewee developed his conception of learning in relation to discovery:

There are steps in learning. You punish students who refuse to take those steps because there are preconditions, necessary elements of the learning process. But, a student in the course of taking those steps moves off the footpath that you have started them on because they are curious about something that's off to one side. If that student ends up in a cul-de-sac that does not matter to my way of grading students because they could not know until they go there if it was a cul-de-sac or not! They may end up on a completely different route which is more exciting than the path that you started them off on. I think it would be a complete failure of education if the students would continue on in the same straight line that you started. It would be the refusal of opportunities that you opened up. So, I would be

fearful of a strictly implemented system of learning that insists that they follow the same line until the end to discover a conclusion which is completely consistent with each step along the way. It seems to me that it is not a very ambitious form of learning (I, A1).

However, institutional processes, such as formal assessment regulations often combine with tradition within particular courses and programmes constrain curricular and assessment design to essentially a 'linear' process of presentation of content, followed by standardised assessment. The concentration being on demonstrated attainment of formal learning outcomes which, in practice, are all too often couched in terms of content knowledge and reproduction. In this sense then, there is limited valuing of creativity in both the processes of curricular design and in terms of facilitating such an attribute amongst students. Discovery based approaches, with more flexibility in the route taken, can lead to unintended but valuable learning outcomes. Hussey and Smith (2002, 2003) have pointed out how intended learning outcomes that respond to an increasing demand for specificity, transparency and measurability within the HE current system, do not reflect the realities of learning practices: they do not provide the students the possibility for interaction, questions and engagement that should be part of an efficient learning process. Referring to Megginson's (1994,1996) concept of emergent learning strategies, they advocate the use of 'emergent learning outcomes' that encourage teachers and students to find together the right balance between the desired learning outcomes, and the development of learning processes in the classroom. This leads towards greater students' engagement in their learning, flexibility in terms of teaching, possibility of different emerging learning outcomes, and space for creativity in curriculum. One of the interview respondents felt strongly about this:

Is creativity a core notion in curriculum design?
Yeah absolutely! For me it is the core of a discipline of fine arts in which I am often engaged myself with my students. I ask students to make some kind of declaration of intention, and to ask questions deriving from that, which take them to somewhere unpredictable; and then to evaluate the outcomes of the learning process in relation to the intentions, but not so much on how the outcome fulfils the intentions but how the outcome redefines the intentions so it becomes an initiatory process (I, A4).

In that respect, it may be argued, teachers might need to explore, within a classroom, the unknown and potential for discovery of other possibilities to

stimulate students' motivation and participation, as one interviewee explained:

But I think the key here is that the teacher must also leap into the dark and it won't happen in every class. But, again and again, when you read the acknowledgement in really groundbreaking academic works, you will find that the persons writing the books thanks their students who have helped them to discover these things. I think that's really encouraging because it means that when you are walking to a class, you are walking into an arena of possibilities where, if the students are responsive, you might discover with them something new and I think students respond to that! They are electrified by it because they know that they are hearing something for the first time and, then, they may discover for the first time that they can find things out by themselves. So, they are no longer passive because the lecturer is no longer passive. It is a journey rather than a destination (I, A1).

8.3. Interdisciplinarity, awareness of cultural difference and imagination towards creative possibilities

Academic disciplines represent territories delimited by clear borders which themselves have been shaped by social imaginary significations (narratives, stories and beliefs as well as norms of practice) created by each particular academic community. The carving out of such bounded spaces within which academics work and in which their identities are shaped makes exploration of other territories all the more challenging and involves negotiation of unfamiliar, different social imaginary significations.

Institutional constraints and conservative academic practices, however, have the effect of reinforcing compliance and encouraging work within safe disciplinary boundaries. These limitations need to be addressed if interdisciplinary work is to overcome its inherent difficulties and flourish. It involves being prepared to listen to the unfamiliar and often conflicting ideas from different backgrounds (Rowland 2006: 102).

Referring to Nussbaum's capacity approach, as introduced earlier, Von Wright (2002) argues that:

Students need to transcend the egocentric position embedded in the belief that I, as a self, am located inside my body and that this is my only possible point of vantage, and need to understand

themselves as open selves basically related to other selves. Narrative imagination can then become an ability to consider the perspective of others (408).

In the same vein, the implementation of interdisciplinary groups might have the potential to encourage academics to discover their colleagues' academic and disciplinary realities as part of the university system, and trigger their potential for imagination to be able to understand other existences and perspectives.

Firstly, one interviewee gave his view on the relationship between interdisciplinarity and discovery of others' disciplinary perspectives: "If you discover a second or third discipline; you discover a second or third set of questions whose answers are going to be different from each other so the system is no longer a close one" (I,A1).

Several participants also connected the discovery of other ways of thinking, and existences with a creative act:

We all have blinkers when we think about something and creativity is when you hear another point of view. It can open your mind, it might not change your mind but actually opens your mind to a different way of thinking about something and from that process, it can spread in different discussions. Everyone has one way of thinking but it is broadening that, and, from that, you can come up with creative answers to things" (G1, S2); "I still believe that creativity is a freedom of mind and spirit, an openness to new ideas, a willingness to consider other ways etc. and to make something of them (CG, Q2, A2).

However, as previously stated, Nussbaum (1997) argues "imagination can cross cultural boundaries" (83) in the sense that understanding such different ways of thinking, and other existences requires individuals to use their imagination. "And creativity [...] it is this ability to visualize that the automobile would be easier to control if you could get rid of the control stick. [...] Creativity is looking at situation or existing environment and say 'ok if I turn this sideways I'll see something new and different' [...] and sometimes it is simply the application of pure imagination" (I,A8).

Nussbaum (1997) adds: "The invitation to consider ourselves citizens of the world is the invitation to become, to a certain extent, philosophical exiles from our own ways of life, seeing them from the vantage point of the

outside and function [...] In other words, a stance of detachment from uncritical loyalty to one's own ways promotes the kind of evaluation that is truly reason based" (57-58). Similarly, participants agreed on the potential of imagination for opening possibilities of change in one's way of thinking. As one interviewee argued:

So for me creativity is here on the preparation and imagination side [...] You need to create that kind of space in your mind. If you are busy, it is unlikely that you are going to be creative. You need to prepare yourself to be creative [...] The point is to escape current thinking and premature judgment. So for people who have been a long time in academia, if they are willing to change [...] Can they make that break, escape their mind set? (I, A7).

Another participant added:

The university is overly focused on structures and misses out on the dynamic aspects of change. We are currently replacing one structure for another. We need an ongoing developing and learning organisation that can dynamically respond. It is not a redrawing of boundaries and reconfiguring of mechanisms that is required but a re-imagining of how boundaries and mechanisms function. It is not a once off re-imagining that is required but a constant process of re-imagining. And for this to be effective it needs to happen at all levels (CG, Q2, A1).

Further, another stressed the relationship between the possible transformation of one's frame of references and creativity:

Problem-solving it is not the only way to talk about creativity. There are many possibilities [...] Divergent thinking is taking all possibilities, through an act of transformation which is not only about solving the problem but changing the frame of references in what we are thinking, and then which brings you to a stage where you can solve the problem through convergent thinking (I,A4).

8.4. The CG potential and limitations

In the context of the CG, the participants did recognise that the opportunities where they could engage with colleagues in other subject areas, were rare within the university's formal structures and processes. Indeed, the only obvious context in which such an opportunity exists is within the Postgraduate Certificate programme on Teaching and Learning in

HE⁵⁸, but such is not a routine part of academic work and is only taken as an additional voluntary activity thus ensuring that the majority of staff remain attached to their own disciplinary tribes for much, if not all, of their career. In that respect, the CG process itself was valued as being a unique experience that provided an opportunity for reflection and discovery of colleagues' other academic realities. "Many of the chats, discussions, and interchanges were exciting. So in general I felt positive and engaged. It was fabulous to get insights into how others 'see the world'. I find a sense of comfort with having the opportunity to share thoughts outside of the confines of a discipline" (CG, Q1, A1).

As we have commented before, not only was this an 'intellectual space' but it also was physically distinct from the disciplines in the sense that most academics generally work within the confines of their departmental buildings, or part of the campus, so not only are they bounded in their disciplines intellectually, but also physically and socially.

In some ways the CELT room is a bit like that you go there and talk to people outside the normal structures in which you interact [...] If CELT did not exist, the conversations you would have would be essentially with people you work with [...] you can go and talk to a mathematician but there is not this type of space outside CELT space. There is not even a social space where you can bump into each other and where you can talk, there is not the opportunity to try to imagine, beyond the structure, what is available (I post CG, A1).

However, despite the possibility for academics to discover the existence of other disciplinary realities within such a group, they did not manage to collaborate and change their usual practices towards more creativity.

The process of participation in the CG, as we have seen in the previous chapters, was for many people initially disorienting, uncomfortable and very different to their other academic work. The lack of structure, the freedom to shape their own agenda and course of action led to considerable uncertainty.

Nussbaum (1997) advocates the use of literature to develop the capacity of 'narrative imagination' in students as it can enable them to question and re-examine the frame of references in which they live, and make changes in their habit, learning, and practice choices. Referring to Nussbaum's

⁵⁸ And related courses at the PgDip and MA levels.

argument, Von Wright (2002) explains:

Reading literature involves us in stories we might not otherwise take part in creating a space where we can share and critically examine these literary experiences together with others. Literature can thus bring people together around themes, which stretch beyond their own lives, and the imagination and critical thinking it stimulates address questions, which are not primarily subjective or private (412).

In the same vein, as detailed in chapter 4, a number of resources were provided to participants of the CG: literary documents (e.g. Sawyers' book on creativity research, the sharing of academic articles between participants), but also visual resources (e.g. the viewing of video interviews). The aim was to stimulate their imagination, discovery of different disciplinary experiences and existences, and potential engagement in interdisciplinary activities. However, most of the group acknowledged their difficulty in conceptualizing possible cooperation as they considered that finding a common link or thread between the disciplines was too challenging.

Von Wright (ibid) points out the limitations of Nussbaum's theory: "Nussbaum suggests a way to challenge our students in order to give them an opportunity to transcend egocentric positions, but her approach presupposes that we can anticipate communication with others and imagine what their lives might be like" (415). Along this line, my observational work during the CG meetings (as captured in my field diary) exposed levels of discomfort and inarticulation in the early stages of communicating with colleagues from very different disciplines. To the question 'Do you think disciplinary boundaries have been crossed and if so how?' (CG, Q2), one answered: "I don't feel that I learned much about disciplines that were really alien to me. There is a huge language barrier between arts and science which wasn't really broken here" (CG, Q2, A4).

The sharing of articles, as previously pointed out, also proved problematic and highlighted just how high the barriers were, with language coming to the fore in this particular case:

There was one session (my first or second session) where examples from our own disciplines were to be presented (in relation to creativity) and some people brought research papers from their field. I found it difficult to engage with these papers and felt that the exercise was too esoteric to have much

potential in encouraging cross-disciplinary co-operation (CG, Q2, A5).

In the fifth session of the CG, a strong disciplinary language divide was revealed throughout the sessions. One participant shared an academic article on the 'parity phenomenon'⁵⁹ in mathematics. This provoked discussion about how difficult it can be to make sense of one another's work, and although in this particular session most attendees were from a scientific/technical background they did consider the challenge of reaching beyond, into the humanities and social sciences:

And what about people from sciences reading stuff from humanities? (CG, A1)

I haven't been systematically exposed to humanities since school but it is really obscure for me, there might be a language barrier (CG, A4).

I was sure that someone from the sciences could read humanities easily! (CG, F2)

It depends on the subject because it is so broad. There is no problem reading about history or geography texts, but when you start to read something about theory or higher-level sociology or philosophy because of the jargon, you can read an entire sentence and not have a clue what it means. There are many critics about humanities that people are deliberately obscure (CG, F1)

But I tend to think that it is more accessible than real abstract notions such as scientific formula (CG, F2).

Sciences' texts will have more symbols and graphs than humanities' (CG, A5).

Yes, when I came across the word 'nepotism' while reading an article from the humanities. I was expecting to see a log or a graph! (CG, A3).

[...]

There is also the issue of motivation. Someone really motivated in science would not be motivated enough to make sense of some humanities papers and vice and versa. Even for students from humanities [...]. It is not easy to understand the jargon of humanities (CG, F2).

Another then presented a copy of an article entitled 'Cooperativity Tames Reactive Catalysts'⁶⁰ from chemistry, and there was some consideration about not just how it compared to mathematics but also how words such as

⁵⁹ Friedlander, J and Iwaniec, H (2009) 'What is the Parity Phenomenon?' *Notices of the AMS*, 56 (7): 817-818

⁶⁰ Schreiner, P (2010) Cooperativity Tames Reactive Catalysts, *Science*, 327

'catalyst' might mean different things in different contexts, and how a specific disciplinary language can be perceived as a foreign language for academics from other disciplines. As one participant claimed in relation to the content of the article: "I am quite lost I have to admit. Well the first paragraph is understandable. I can get 50 percent of the diagram" (CG, A4).

Only one of the group attempted, as stated early on, to propose using the group as a means of trying out and experimenting with creative approaches to teaching. Indeed, he went further and proposed even thinking about sharing a topic or object across classes in the different subjects. The unfolding discussion around this exposed also discomfort and uncertainty in academics as regards their ability to understand other disciplinary languages:

We could choose 'something' from our own discipline and then give a copy to the rest of the group and everybody could give his or her own interpretation/understanding of it with a perspective from his or her discipline (CG, A1).

I am afraid not to be able to read German. I don't expect that a mathematician would have any special perspective on a piece of German literature or something else (CG, A3).

That's surprises me! Why would they not? (CG, A1)

Because I am a mathematician when I am doing mathematics. I don't think mathematically when I am doing cooking, or going for a walk (CG, A3).

Yeah that's difficult! (CG, F1)

There was a strong contrast between the enthusiasm and eloquence demonstrated in the Pecha Kucha sessions and some of these other more awkward attempts to reach out or to find some common ground for shared teaching. One participant (CG, A3) claimed she felt safe in the group environment to try this new activity (Pecha Kucha). Yet, over the other sessions, the same participant demonstrated reluctance to imagine herself in the shoes of another colleague different discipline, as she felt unqualified to comment on other academic domains:

For a group like this, it is the people together that make it creative. Asking a mathematician to come in chemistry class and teach a bit of chemistry that would be creative (CG, A1).

I would be terrified to do that! (CG, A2)

If I take a small bit of chemistry and if I explain to you and you teach it to the chemist students (CG, A1).

I think if I have a question I would say 'ask the chemistry teacher'[...] When you do not have the expertise you have to be really creative to handle the teaching! (CG, A3)

It became apparent that academics had difficulty in imagining and understanding the potential experiences of other colleagues:

There is a story about a person seeing another person performing with plates and spinning plates. This person triggers off in his mind questions on the spinning system, and from the point of view of the physics, he makes comment on that system (CG, A1).

Yes, that's something related to physics!(CG, A3)

Isn't part of the creative thinking to see something really different and make a junction with what you have been working on? (CG, A1)

I am wondering if the sociologist would have any reaction to spinning plates, if it would be meaningful to the sociologist. (CG, A3)

Why would it not be? (CG, A1)

I am not very surprised while listening to you. You are really thinking in terms of your own discipline. That is the way universities work but maybe creativity is just thinking differently, it is going beyond your discipline. I know it is really hard because it is the way you work but of course the sociologist would have a reaction on the spinning plates system but maybe completely different from the chemist (CG, F2).

McWilliam et al (2008) have suggested that cross-disciplinary collaborative approaches require 'useful ignorance' rather than 'sure knowing'. They argue that what holds people back from taking risks is often their knowledge rather than their ignorance. According to them, 'useful ignorance becomes a space of pedagogical possibility rather than a lacuna' (ibid: 5). Nevertheless, in the case of the CG, participants' incapability of imagining other possibilities, to some extent paralysed them in their attempts to go beyond their comfort zone and questioning their expertise, practices and identities. One attempt, proposed by a group member, to take some risks by teaching as a team, groups of students in each of their disciplines was

met with unease and reluctance:

I would go for 4th year class, solid groups, more interaction, and classes not so big. But, you could also set up something with smaller group. What is prevalent is the chemist thinking rather the chemist content. Potential creativity is here. It is the fact that you have to bring something to it and I have to bring something to it and the bringing of us together what makes it creative (CG, A1).

So would you teach together? (CG, F2)

Yes, we could! (CG, A1)

If you think about groups like German, how would you be able to understand chemistry and vice and versa (CG, F2).

I can't talk German but if someone explain me what the class is about and let me 10 minutes to teach something relevant in that class. The chemist teaching German without the language! (CG, A1)

[...]

It is going to be a new TV programme! (CG, F1)

[...]

Now everybody will be able to do your job! Anyone can teach! (*anger*) (CG, A2)

As this chapter demonstrated, the CG participants did not manage to engage in a proper collaboration, and subsequently in creative activities. Dillon (2006) argues indeed: "Moving ideas between disciplines, integrating content from two or more disciplines to produce something different are also creative acts. In educational terms, making connections between subjects, and working in cross-curricular modes, are recognised routes to teaching creatively and providing opportunities for both learning about creativity and undertaking creative activity"(71).

8.5. Conclusion

Universities have been territorialized intellectually and the contemporary movement to interdisciplinarity and to transdisciplinarity or non-disciplinarity is a way of fighting or resisting that territorialisation. It redefines what a university can be (I, A4).

The CG experience demonstrated however that possibility for

interdisciplinary collaboration and creative practices requires the development of capacity of communication and imagination in academics, which seemed limited in that case.

It may be argued that time can be a key for academics to possibly engage in a real process of communication with colleagues from different disciplines, and of 'imaginative understanding' (Nussbaum 1997) to reconsider their practices and be able to collaborate towards creativity.

However, it is apparent from the observations, feedback, interviews and questionnaires (related to the CG) that despite the early frustrations, many members of the group did become significantly more aware of their working context and of the social codes, norms and self-limiting tendencies within their disciplines. Such opportunity for exchange also enabled them to be confronted to other disciplinary cultures that can represent, following Nussbaum's argument, the first steps towards potential change in practice.

In that respect, it is important not to neglect the significance of the CG process. As Rowland (2006) states: "As with many intellectual endeavours, the difficulty involved in bringing together different disciplines, either to form a new field or simply to work on a specific project, can be a measure of the significance of the collaboration. The most valuable innovations in academic life are often the most hard won" (91).

Chapter 9: Conclusion

9.1. Introduction

In this chapter, I will come back to my initial research questions and to explain why I addressed them in my thesis. Then, I will summarize my findings and comment on how I addressed my research questions. A summation of my contributions to the educational research field on creativity in higher education will be drawn. In addition, strengths and weaknesses of my study and its implications for further research will be put forward. Moreover, I will raise the relevance of this research work and its implications for academic institutions and education policy. Finally, I will finish my thesis reflecting on the nature of my research process. I will question its creative aspect through examining its relationship to the 'social imaginary' of the Social Sciences community.

9.2. Initial research questions

My thesis started from an initial question that I call the 'hypothesis question'.

1) What are the factors contributing to the gap between top-down political discourse encouraging creativity in terms of teaching in higher education and teaching practices on the ground?

Chapter 3 highlighted how my previous MA research findings, my professional experience, and my first PhD research steps influenced this hypothesis question. I identified that a serious dichotomy exists between the top-down political discourse encouraging HE institutions and academics to put creativity at the centre of management strategies and teaching approaches, and academics' practices on the ground. Moreover, my research study within NUI Galway confirmed that the vagueness of the instrumentalist political discourse on creativity within HE is a challenge for academics, and the concept of creativity has a different meaning according to disciplines and individuals (Jackson et al. 2006).

Yet, my research goes beyond such problematic understanding of creativity as the only limitation on the implementation of creative teaching practices.

My study explores how academics' creative teaching approaches are constrained by institutional structures and disciplines. Jackson claims that, "the policy problem for creativity in higher education is how to create a framework that aligns with the values which underlie the very idea of creativity; how do we create a framework that enables, encourages and inspires educators and institutions to invest time and effort to change their practices?" (Jackson 2006:14). According to many of the academics I spoke to during this research, this enabling type of framework does not exist. By contrast, the one in place limits their creative teaching attempts.

Thus, I decided to explore academics' perceptions of the constraints stifling their creativity in terms of teaching experiences, through addressing the question:

2) What conception do teachers have of the limitations on their creativity in terms of teaching experiences within their institutional and disciplinary context?

Chapter 3 highlighted how challenging the conceptualisation of creativity within HE is, and subsequently how the choice of a methodological approach is not an easy task. The research process revealed that an individualistic research approach is limited in yielding a complete explanation of creativity and its constraints on teaching. For that reason, I raised the question:

3) What can be the most appropriate research methodology to explore creativity constraints in terms of teaching in HE?

The underlying question was: *What type of research approach to creativity, differing from an individualistic one, could enable the examination of the various levels of analysis involved in creativity constraints on teaching, perceived by academics, to fully understand the situation?*

9.3. Findings summary

From the very beginning of my study, I faced the challenge of producing a coherent conceptualisation of creativity within HE. An individualist research approach to creativity, via gathering individual perceptions, did not lead me towards a coherent understanding of creativity within HE. Throughout my pilot study, I discovered a more contextual research approach, by bringing academics together, would help them to construct a common

understanding of creativity. These academics shared an understanding of institutional and disciplinary structural regulations limiting the emergence of creativity in teaching. I decided then that my research object would focus on the constraints on creative teaching, perceived by academics. Consequently, an answer to my research question 3, as regards the most appropriate methodology, became crucial.

The combination of my research practice, reading of theory and reflection led me to a methodological choice. I decided a cross-disciplinary collaborative enquiry group with academics from NUI Galway could be a valuable and worthwhile approach to explore academics' shared perceptions of constraints on their creative practices. The collaborative enquiry group gave me a more complete and contextualised view of the situation to answer question 2.

The experience of the CG revealed academics' discourse is in contradiction with their practices. The absence of structure did not encourage academics to engage in creative activities. Further work of reflection on my research practice, combined with reading certain theoretical approaches, led me to develop a theoretical conceptualisation of creativity constraints on teaching that responds to my desire to better understand the situation. In the context of my study, although institutional restrictions weighing down on creativity exist, the coercive nature of disciplines is also partly the result of academics communities' imagination. Consequently, such understanding questioned academics' perceptions of the constraints they experience on their creative teaching, and bring a potential answer to question 1 on the difficult implementation of the political discourse on the ground. It also suggested challenging academics' meanings of these constraints and potentially empowering them to change their practices is possible, notably through interdisciplinary collaborations.

The CG experience again helped demonstrate that academics can value these types of interdisciplinary interactions to explore new possible practices, share experiences and learn from colleagues from different disciplinary environments. However this experience also demonstrated that changes in practice within an interdisciplinary group context are not automatic. It requires a considerable number of parameters, such as the formation of a collective identity, group trust, an appropriate balance between improvisation and structure, time, and the development of critical examination, awareness of disciplinary cultural differences and

imagination..

9.4. Contributions to the research field

9.4.1. Location of creativity constraints on teaching in HE

My first contribution, then, concerns the location of the factors inhibiting the implementation of creativity in teaching within HE. In line with the existing literature on creativity constraints in HE (Jackson et al.2006; Kleiman 2007), the study confirms the difficulties in attempting to capture academics' creative teaching; the individualistic nature of academics' account of creativity; and the problematic lack of a common understanding of creativity across disciplines. It also confirms the disconnect between political discourse of creativity, perceived as constraining rather than enabling, and practice on the ground in HE (Craft and Jeffrey 2008).

However, the thesis considers a new level of analysis in understanding the inhibiting factors of creative teaching. By demonstrating the contradictions in academics' account of constraints on creativity, it is argued that the first level to examine lies in the dichotomy between academics' discourse on the structural constraints they perceive and their actual practices; and not in the dichotomy between political discourse on creativity and teaching in HE and the academic practices on the ground.

Consequently, as I will develop in the following part, it is crucial for researchers to look into detail at the mechanisms underlying the coercion of creative practices to understand this dichotomy.

9.4.2. Model analysis of constraints on creativity in teaching in HE

Chapter 2 introduced how my research moves away from an individualistic approach to creativity in which creativity is considered as an individual characteristic (Gardner 1993, 2008; Brolin 1992; Digman 1989; Feist 1998; Guilford 1967; McCrae 1987), to contribute to a systemic approach to creativity (Hennessey and Amabile 2010) that considers the importance of the relationship between the individual and the structure in which he or she performs in the emergence of creativity.

It is notably largely in line with Csikszentmihalyi's (1996) 'systems model' analysis that explains creativity as an interaction between the domain,

the field and the person. My research suggests the analysis of constraint mechanisms on academics' creative teaching requires a detailed look at the interaction between them and their academic identities (echoing the individual dimension of Csikszentmihalyi's model), their disciplinary structures (echoing the domain dimension), and their disciplinary communities (echoing the field dimension). As a result, the study is grounded in a 'systems model' analysis of the restrictions of creative practices, yet it transcends this by also including a fourth level of analysis that is the 'social imaginary' of disciplinary communities. A model that includes the four levels of analysis is represented in Figure 2 , below.

As previously mentioned, few scholars have examined the relationship between imagination and creativity, teaching, learning and curriculum in HE across disciplines (e.g. Jackson et al.2006; Halpin 2008; Nygaard et al.2010), and fewer still (e.g. Donnelly 2004) have focused their research on the Irish context. However, this literature is still grounded in an individualistic approach to creativity. By contrast, the model proposed in the thesis encourages researchers to step back from how academics talk about the limitations on creativity and take into account the crucial role of disciplinary collective imaginaries in the confinement of creativity. Within the HE context, as I argued, creative practices are difficult to emerge because individual academics have their practices, identities and existences tied to their disciplines, sets of symbolic rules and procedures, as products of the social imaginary of disciplinary communities. This phenomenon can prevent them from thinking beyond their disciplinary boundaries and from developing possible different and more creative approaches.

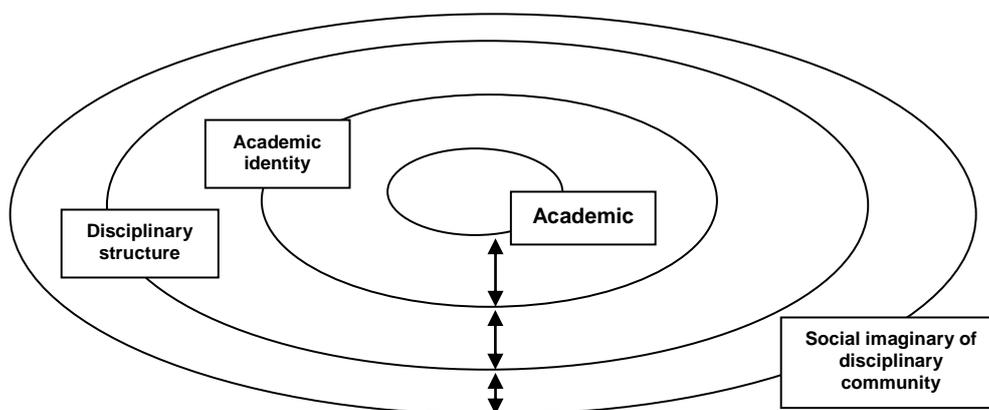


Figure 2. Model analysis of constraints on creativity in teaching in HE

9.4.3. Research methodology to explore creativity and its constraints

Grounded in an individualistic approach to creativity, the 'interview' is the most frequent method used in the literature to understand constraining factors on creativity (Shalley and Gilson 2004; Craft 2005; Jackson et al.2006; Craft and Jeffrey 2008; Moran 2010). Yet, getting individual perceptions does not give a full understanding of the situation because it does not take into account the relationship between individual and the structure they perform in.

This research contributes to the investigation of such a relationship to better understand constraints on creativity experienced by academics. Largely influenced by the work of Sawyer (2004, 2006) and Walker (2001) on group collaboration and creativity emergence, this led to the methodological choice of placing participants into an interdisciplinary collaborative context. An action research project based on an interdisciplinary collaborative enquiry group appeared to be the best methodological approach to obtain a more complete explanation of teachers' perceptions of the constraints on their creativity as it enabled the researcher to examine at the same time academics' perceptions, discourse, practices, and the relationship with their disciplinary backgrounds. The CG experience in itself had limited success in generating creative practices, yet this led to further insights into the limitations to creative teaching practices. In addition to the theoretical explanation on the construction of academics' perceptions of constraints on creativity as developed in chapter 5, empirical evidence on the potential nature of those constraints were given in chapters 4,6,7 and 8. The exploration of a similar systemic research approach for further investigation of this topic is suggested.

9.4.4. The use of theory to research creativity constraints on teaching in HE

Part of the original contribution of this research is the core place of theory I developed as an unexpected outcome of my critical research praxis. This brings a new theoretical perspective to understanding constraints on creativity, seemingly non-existent in the literature on creativity in HE as referred above. As previously stated, some scholars (e.g. Appadurai 1999; Rizvi 2010; Kanellopoulos 2010; Rojanapanich and Pimpa 2011) have pointed out the critical dimension of 'social imaginary' (Castoriadis 1987, 1994, 2007) towards potential change within the education system, and

beyond. However, no research that I have found draws on this concept within the context of higher education, and especially not as a contribution to the understanding of constraints on creativity.

In chapter 5, I also explored the emancipatory function (Trowler 2012) of this framework. It calls for the re-imagination of academics' understanding of creativity constraints and changes in their teaching practices. Nevertheless, not only do I see the use of the theory grounded in critical research praxis as a medium for participants' emancipation but also for the researcher's emancipation. Theory offers the researcher a means to imagine different research possibilities throughout his or her praxis. Trowler (2012) argues that theory can help us re-imagine, ignite and liberate the sociological (or other) imagination if we use it with skill and flexibility. In the case of my PhD, the use of theory enabled me to develop my research imagination. I found solutions (not initially envisaged) to the difficulties I faced during my research praxis. Ultimately, the theoretical framework I constructed as one of my research outcomes enabled me to also imagine different possibilities for my research participants in terms of teaching practices.

9.5. Strengths and weaknesses of the research

Some methodological points of my thesis can be questioned. Firstly, my research path led me to look at the interrelation between the four levels of analysis described above (diagram 3), which play a role in these limitations. Yet, other levels that are not included in my conceptualisation of creativity constraints on teaching could have been taken into consideration. For example, the influence of academics' relationship with their students within a classroom environment or academics' relationship with institutional management on possible creative approaches (or not), could be further explored. I believe however further research could be made on the impact of the relationship between the four variables (developed in this thesis) on creativity enablement or restrictions in teaching experiences.

In addition, further research is needed on the construction of the 'social imaginary' of disciplinary communities and the way it could be re-imagined to re-shape academic identities and open creative teaching possibilities. Then, it would be interesting to see how the theoretical approach provided in my study could be applied to any type of discipline within the HE context. A comparative study across disciplines on the impact of the interrelation between the four variables on the development (or not) of creative

teaching, could be one suggestion for further investigations.

Furthermore, the empirical part of my study took place in one single higher education institution. Notably, my main source of data collection is based on the work of one single collaborative enquiry group.. This sample can be perceived as unrepresentative of the wider HE context. However, the combination of the empirical study with the theoretical approach adds relevance and strength to the research.

Moreover, the degree of interdisciplinarity of the CG can be questioned. A greater variety of disciplines could have been represented in the group. Most of the participants were from science (or similar) departments, mainly mathematics, chemistry and engineering. Some participants from humanities disciplines such as English, Italian and German, only came a few times. It would have been interesting to have more of these participants, and also from the arts-based disciplines, to counter-balance the strong scientific voice of the group. Nevertheless, my empirical work revealed that this interdisciplinary group space was the first and unique opportunity for academics from different disciplines to meet and discuss creativity within NUI Galway. Some of the participants from the sciences claimed that it was the first time they had the chance to gather even with other colleagues from other similar disciplines.

The exploratory character of the CG process was intentional. We tried to give the participants the freedom to investigate the issues they wanted. Although this approach had limited success, it enabled me to discover the dichotomy between academics' discourse and their concrete practices. I would have probably missed this paradox by using a rigid framework to manage the group. Consequently, I may not have understood the constraints on creative teaching in the same way.

9.6. Implications for academic institutions and education policy

9.6.1. Academic institutions and staff development programmes

The CELT team perceived this research project as an initial test for further cross-disciplinary group collaborations in the aim of expanding further staff development programmes. Lessons will be drawn from the discoveries and also limitations of the study.

This work might also be useful to any institutions willing to implement a similar type of collaborative project to support professional development. In that respect, staff development programmers and group facilitators could come to a more nuanced view of the constraints that academics face in terms of developing creative teaching approaches. The current study may help them to realize they cannot ask academics to be creative in their teaching practices and leave them working without any guidance. My research revealed that creativity in teaching does not happen by magic and without any structure. Academics have their practices, identities and existences embedded in their disciplinary environments. As previously mentioned, facilitators' efforts in developing the capabilities of critical examination, awareness of disciplinary cultural difference and imagination (Nussbaum 1997) in academics, are needed to enable interdisciplinary collaboration.

Hence, the implementation of such a project should not strictly respond to the instrumentalist political discourse of creativity in higher education. Interdisciplinary collaborative groups should constitute democratic spaces for "critical enquiry" (Rowland 2006:27) in which transformation, emancipation and transgression in terms of practices are possible. As he explains:

Some new ways of thinking about learning, teaching and research offer the possibility and the hope of reconstructing the critical purpose of the university as a place for intellectual enquiry. To realize these possibilities it will be necessary to create the spaces in which staff and students can take risks and can struggle to overcome the difficulties of engaging with ideas that are often framed in very different disciplinary languages (ibid).

The higher education environment lacks the "reflective space in which the kind of conversations that stimulate critical forms of interdisciplinarity can take place" (Ibid:100). Chapter 4 depicted how improvisational theatre space encourages the emergence of creative practices. This and other similar creative processes could be used as an inspirational model to open critical and creative interdisciplinary spaces within HE (e.g. Sawyer 2004).

To foster collaborative projects, institutions have to provide those managing staff development programmes with financial and material resources. In a period of financial crisis, it is understandable that these resources might be limited. Yet, I believe that the most important resource needed is time. In

the context of the efficiency and performativity culture that institutions impose on staff, time is not a popular concept within academia. However, the potentiality of an interdisciplinary group methodology, as a benefit to academics and their professional development, should not be ignored.

9.6.2. Educational policy and the implementation of creative teaching practices in HE

As I formerly stated, not only did my PhD reveal a disjuncture between political discourses on creativity and teaching practices, but also a disjuncture between academics' discourse and practices. In that sense, top-down policy on creativity and teaching in HE cannot be implemented without considering the practices on the ground within academic institutions. HE stakeholders, including academics, should be involved in policy-making. Consequently, policy-makers would understand academics are at the core of change in terms of teaching practices, and therefore policies on creativity cannot be disconnected from their needs as teachers. Chapter 1 mentioned that my work experience at the European Commission confirmed that policy-makers use the concept of 'creativity' as regards education without fully understanding its nature nor what is required for it to be actually implemented. An understanding could encourage them to re-orient their policies on creativity to possibly support the university's role of critical enquiry (Rowland 2006) and cultivation of humanity (Nussbaum 1997).

9.7. My PhD research process and product, and the 'social imaginary'

Reflecting back on my research process and what I have just produced as PhD thesis, I am wondering where the creativity took place. In fact, is it not ironic to produce a very conventional PhD in which I argued that constraints stifling academics' creative teaching are more imagined than real? Were also the limitations, notably in terms of time and writing format, I experienced to produce such rigorous academic work, more imagined than real?

I believed that the exploratory nature of my PhD process, notably through my pilot study, led me to a totally different place from where I was at the beginning of my thesis. My research path was strewn with preparation, reflection, discovery, imagination, excitement, but also failures, risks, disappointment, doubts, exhaustion, loneliness and loss - as the CG has

experienced. The doctoral process, as the way I initially imagined it, was challenged and transformed throughout my research practice. I realize now, at the end of my PhD adventure, that the research path I took was an initiatory process in order to discover and understand the nature of the qualitative research process. Recently, I told my supervisor that it would have been much more strategic to have known exactly from the beginning what my research design would be. She answered by a question: "What would have been the point to do something you knew already?". I found her answer extremely relevant. Every exploratory and initiatory adventure has an undetermined outcome. However, the gain of knowledge throughout such adventure cannot be possible without the experience of it. Chapter 1 mentioned, the understanding of the research process could not have been possible without research practice. I believe that this exploratory and initiatory path is a manifestation of a creative research process.

Montuori (2010), who refers to the doctoral research process, explains:

Creativity work by definition involves not knowing what will happen - the answer cannot be decided in advance. Certain parameters apply: such as the demonstration of solid scholarship, which includes a thorough understanding of the literature and the ability to do research, logical and creative thinking. But students have to accustom themselves to the possibility that the eventual outcome of their work is not predictable - in other words, that even the instructor may not know ahead of them what the final answer is going to be (120).

In that respect, the creative researcher must cope with ambiguity as he/she "understands that, in situations that have no pre-established framework and roadmaps, they can draw both on their scholarship and on their own resourcefulness to create a new perception of a phenomenon" (Ibid: 118-119). Coping with ambiguity and no pre-established framework was a major challenging aspect of my research journey; yet it was worth it as it encouraged me to remain open to change and information that led me to a new understanding of what was possible and what is not in terms of research on creativity. Also, throughout the research process, I learnt a lot about myself, and my understanding of my role as researcher was transformed. The transformative dimension of the research process requires the student to engage in a self-inquiry. This leads him or her to question fundamental assumptions about him or herself as human being in the world, and about the way knowledge and thinking are organized in order to become an independent scholar and actor (Montuori 2006).

According to Trowler (2013), creative enquiry and transformation are core to the Art and Design research process. He believes that HE research should also take into consideration the transformational dimension of the research process as:

Higher education research would be re-balanced, giving space to an appreciation of how the environment shapes feelings and evokes responses [...] There would be new ways of seeing, greater space for the creative urge and imaginative techniques would be deployed to free the researcher's imagination from the constraints of prior expectations, which limit perception and creativity (62).

In addition, he argues that Art and Design research is concerned about making an impact, notably by aiming at answering the question "How can I make a real difference with this, beyond my own disciplinary community?" (62). I believe my PhD journey as described throughout my thesis can help PhD students across disciplines to understand the challenges and successes of a creative enquiry leading to a personal transformational journey, to ultimately become an independent creative and imaginative scholar.

Nevertheless, the overall thesis format (the research product as such) as an outcome of my research process, remains very conventional and influenced considerably the way I conducted my research. I had to produce a highly structured written work of a maximum 80000 words, made of an introduction, a literature review, methodological chapters, data findings chapters and a conclusion. Yet, I also believe that my doctoral studies and the restrictions I experienced are also the products of the 'social imaginary' of disciplinary communities I mentioned over my thesis. In that sense, I very much experienced how academics' 'social imaginary' can be powerfully limiting. The PhD writing exercise is the sine qua non condition to become part of the academic community. More precisely, the doctoral thesis is a rite of passage to be part of one of the academic tribe (Adams 1988). The sacrosanctity of the Social Sciences' format of writing is a symbol of the 'social imaginary' of the Social Sciences' academic community.

Some disciplines, such as the arts-based disciplines, have their 'social imaginary' opened to creative possibilities for non-conventional types of

doctoral studies. These disciplines have developed practice-based research approaches in which the creative process and outcomes are essential to the creation of knowledge. Such approaches leave room for a diversity of research methods with openness and complexity as there is not initial set goal or expected result, any more than a prescribed methodology to follow. As Slager (2009) states:

Artistic research can never be characterized by a well-defined rigid methodology. Rather its form of research could be described as methodical: it entails a strong belief in a methodologically articulable result founded by operational strategies that cannot be legitimized beforehand. Indeed, that is the essential characteristic of artistic research (55).

Jones (2006) describes the 'practice-based' research project as "a self-reflective supervised programme of inquiry leading to new knowledge" (232). The concept of practice-based PhD varies from one institution to another (Candy 2006). Yet, one particularity is its intrinsic "pluralistic approach to knowledge" (Ibid:238). The knowledge produced can be embodied in artefact or written product, or both at the same time. The written work generally reflects on the field of enquiry and the process of the research project. For instance, in Ireland, the *PhD in Studio Art* offered by the Burren College of Art requires students to produce both types of work but prioritizes the research outcome as art over the text⁶¹.

One area of research debates the possibility of stepping outside traditional disciplinary writing conventions to try new forms of writing (Richardson and St. Pierre 2005). In that respect, I believe creative arts PhDs should be used as examples to open discussion on different approaches to knowledge and methodologies. Candlin (2000) also argues that the practice-based PhD could be seen as an opportunity to rethink academic conventions and scholarly requirement. In addition, Elkins (2009) states: "Universities have not been set up to think about the confluence of making and studying, understanding and knowledge, practice-led research and research-led practice, writing and seeing. Studio art practice could be the place to carry those discussions forward" (130).

Social Sciences have not opened yet the possibilities existing in arts-based

⁶¹ In April 2012, Eileen Hutton was awarded the first PhD in Art Studio at Burren College of Art. Her body of work entitled 'Being In the Land: A Sculptural Investigation of Ecology' comprised of an exhibition of sculptural art work, supported by written material critically reviewing the field of enquiry and the process of her research project. See: <http://www.nuigalway.ie/about-us/news-and-events/news-archive/2012/april2012/first-phd-in-studio-art-to-be-awarded-at-burren-college-of-art-conferring.html>

disciplines in terms of a pluralistic approach to knowledge and methodological possibilities. In contrast, there is a risk that research in the field of Arts may be forced to adapt the conventions of other disciplines (Jones 2009; Candlin 2000). In that respect, Jones (2006) had previously encouraged the artistic field to provide “a foundation for practice-referenced academic standards” (239) for arts-based PhDs. He believes this foundation should embrace as a strength the plurality of approach to knowledge and research methods that such PhDs can offer. Ultimately, it could be used as an asset for the university research world as a whole.

One rationale underlying such closeness is that Social Sciences are rooted in very rigid disciplinary conventions and rituals that social scientists have created. I understand it is only through setting standards that assessment and verification of the worth of new ideas are possible, otherwise anyone could get a PhD. Yet, the exercise of my PhD is a striking example of the stasis existing in Social Sciences that does not yet allow much room for possible new forms of doctoral studies, research methods and creative approaches to knowledge production. I explored various research methodologies but they already existed, and the goal of my PhD, as writing exercise, was predictable and expected.

I do believe that any type of openness for creativity cannot happen without academics' involvement in change at first. They are the producers of the constraints I was subject to in the framework of my research and they experience themselves everyday in their teaching approaches. Freire (1996) argued:

In order for the oppressed to be able to wage the struggle for their liberation, they must perceive the reality of oppression not as a closed world from which there is no exit, but as a limiting situation, which they can transform. This perception is a necessary but not sufficient condition for liberation; it must become the motivating for liberating action. Nor does the discovery by the oppressed that they exist in dialectical relationship to the oppressor, as his antithesis -that without them the oppressor could not exist-in itself constitute liberation. The oppressed can overcome the contradiction in which they are caught only when the perception enlists them in the struggle to free themselves (31).

I very much hope that my PhD study will encourage academics willing to become more creative teachers to be engaged in that struggle to “free

themselves” which involves “liberating action” (ibid). In addition, I believe one of the most important roles of staff development programmes is to nurture academics’ potential of change. I hope then my research can inspire the Centre for Excellence and Learning in Teaching, and any other institutions in charge of academic development to embrace this role.

Reflecting back on my early concerns, in reaction to my experience of the French HE system of the Grande Ecoles, I believed the emergence of creative teaching was possible as long as academics were willing to engage in such practice. Along this line, I preconceived the development of creativity practices would engender an automatic transformation of the HE teaching landscape, moving away from traditional approaches.

This PhD experience revealed strong limitations on the emergence of creative practices. Change in university teaching practices no longer appears as immediate as I had imagined. I believe, nevertheless, that my research contributes to the debate on what creativity can really offer to HE as regards the development of capabilities of autonomy and change in individuals (academics and subsequently students), towards possible greater social justice, democracy and humanity with the university context and beyond.

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Appendices

Appendix I: An example of written answers from participants at the OECD/IMHE General Conference thematic lunch on creativity in HE

Discuss!



(1) 'Creativity' is often mentioned in university strategies and mission statements. What does creativity mean to you, in the context of higher education?

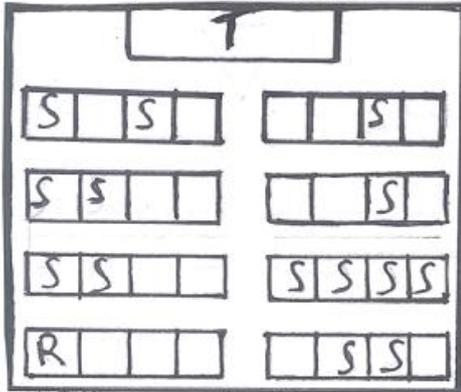
(2) How might creativity best be nurtured within the administrative structures of HE Institutions? To what extent is it better supported by strategic planning at the leadership level or grassroots innovation?

- (1)
- Entrepreneurship : freedom of innovation + encouragement to implement ideas + try out
 - Involve Alumni + role-models
 - More links between theory and practice :
creating environment for staff/students to be creative and innovative
 - junior enterprises
 - entrepreneurship centres
 - incubators + simulators
 - training should involve external practitioners
 - On-the-job training (e.g. teachers should visit other organisations + learn practical skills)
 - Multi-stakeholder partnerships :
 - Uni ↔ Students
 - Private Sect ↔ Policy
- (2)
- Understand different groups of stakeholders
 - Be more focused on optimisation : see where the most impact is and prioritise processes + cut-off "double work"
 - Make educational goals "sexier" + invest in transparency + communication

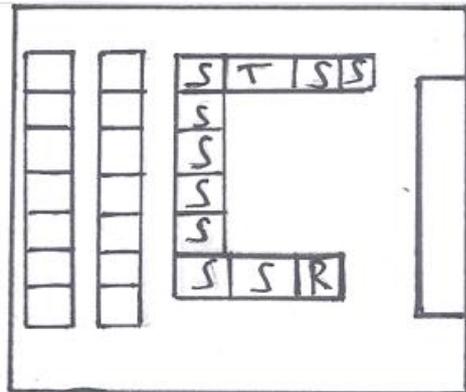


Please discuss these questions with those who are near you at lunch. Write down the main conclusions/ideas that emerge and at the end of lunch place the card in the box provided or hand to one of the team

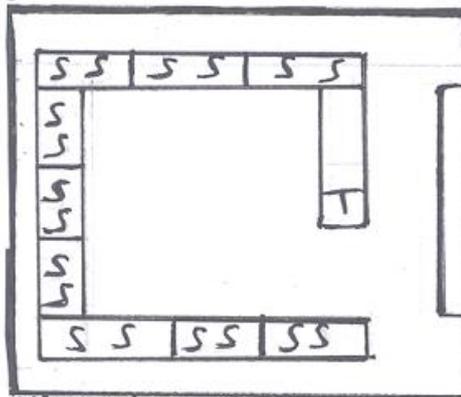
Appendix II: Diagrams of various classrooms observed, recorded in my field diary



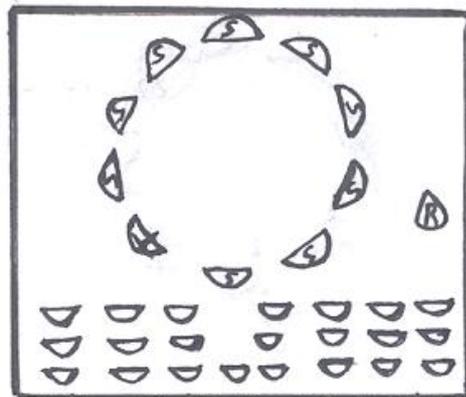
1st year mathematics workshop



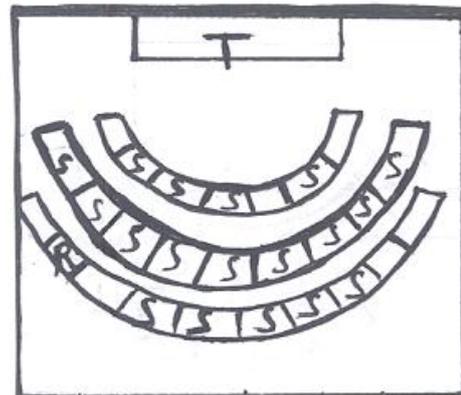
4th year mathematics seminar



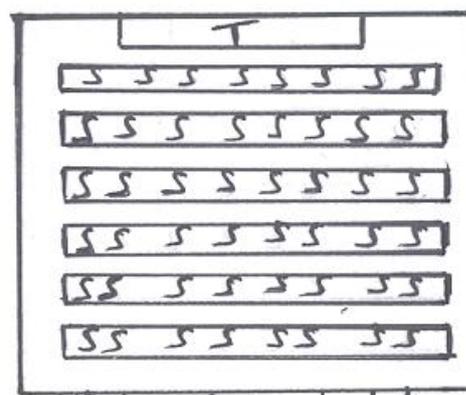
MA Sociology, seminar



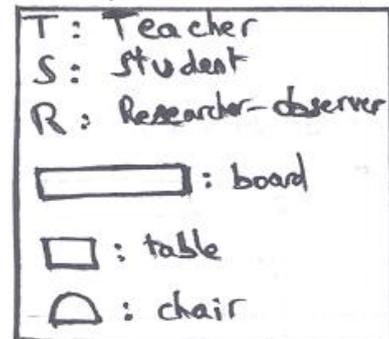
2nd year English-Drama seminar, theatre



3rd year Spanish, seminar, language lab



1st year geography, lecture



Appendix III: Labeling scheme

Interviews

- (I, R): Interview, researcher, CELT
- (I, A1): Interview, academic 1, Centre for Irish studies
- (I, A2): Interview, academic 2, Huston School of Films
- (I, A3): Interview, academic 3, English
- (I, A4): Interview, academic 4, Burren College of Art
- (I, A5): Interview, academic 5, engineering
- (I, A6): Interview, academic 6, nursing
- (I, A7): Interview, academic 7, business
- (I, A8): Interview, academic 8, DERI (Digital Enterprise Research Institute)

Group-interview with students

- (GI, R): Student group-interview, researcher, CELT
- (GI, S1): Student group-interview, student 1, sociology
- (GI, S2): Student group-interview, student 2, sociology
- (GI, S3): Student group-interview, student 3, sociology
- (GI, A1): Student group-interview, academic 1, sociology

Focus group (FG)

Group 1:

- (FG, G1, A1): Focus group, group 1, academic 1, Italian
- (FG, G1, A2): Focus group, group 1, academic 2, Business
- (FG, G1, A3): Focus group, group 1, academic 3, IT

Group 2:

- (FG, G2, A1): Focus group, group 2, academic 1, Geography
- (FG, G2, A2): Focus group, group 2, academic 2, History
- (FG, G2, A3): Focus group, group 2, academic 3, Political sciences

Creativity Group (CG)

- (CG, F1): Creativity Group, facilitator 1, CELT
- (CG, F2): CG, facilitator 2, CELT
- (CG, A1): CG, academic 1, chemistry
- (CG, A2): CG, academic 2, mathematics
- (CG, A3): CG, academic 3, mathematics
- (CG, A4): CG, academic 4, engineering
- (CG, A5): CG, academic 5, Acahamh, IT
- (CG, A6): CG, academic 6, German
- (CG, A7): CG, academic 7, English
- (CG, A8): CG, academic 8, German
- (CG, A9): CG, academic 9, English
- (CG, A10): CG, academic 10, Acahamh, Gaelic
- (CG, A11): CG, academic 11, engineering
- (CG, A12): CG, academic 12, adult education

+ (CG, CELT guest): CELT guest, School of education, Iceland

Questionnaires

- (CG, Q1): CG, questionnaire 1: questionnaire for CG participants before the CG meetings start
- (CG, Q2): CG, questionnaire 2: questionnaire after the last CG meeting to close up the CG process

Interview

(I post CG): Interview post CG, academic 1, chemistry: Interview after the last meeting of the creativity group (CG)

Emails

- (CG, E, A1): CG, email, academic 1, chemistry: email post CG and post interview with academic 1
- (CG, E, A12): CG, Pecha Kucha 2, academic 12, adult education: email post Pecha Kucha session 2

Creativity Group 2: (CG2)

Focus group planned to become a second collaborative enquiry group but the group meetings stopped after the second meeting because of time constraints and staff workload

- (CG2, A1): Creativity Group 2, academic 1, business
- (CG2, A2): Creativity Group 2, academic 2, business
- (CG2, A3): Creativity Group 2, academic 3, engineering
- (CG2, A4): Creativity Group 2, academic 4, law

Appendix IV: CG activities

	Date	Location	Participants	Resources	Meeting topic	Blackboard	Data gathering
session 1	12/11/2009	CELT room AM207	•5 participants •2 facilitators	•Book-Keith Sawyer' Explaining creativity' sent by post as a gift to introduce the topic of creativity •Movie from the Huston school of Films on the NUI biology department screened as a symbol of interdisciplinary work	Group introduction and discussion about creativity within HE context and practices	Summary session 1	•Notes in field diary •No audio recording of session as not sure how to record best the CG sessions at that stage
session 2	14/12/2009	Harbourg Hotel restaurant	•5 participants •2 facilitators •1 Icelandic guest visitor	•Dinner •Small Christmas gifts to the participants	•Creativity meaning and issues around teaching and learning context •Galway symposium and potential outcome from the group	•Summary session 2 •Doodle to schedule the dinner	•Notes in field diary •Audio recording of the session •Transcription of the recording
session 3	04/02/2010	CELT room AM207	•6 participants •2 facilitators	•Brochure of the Arts Muscailt Festival- NUI Galway •Academic paper: <i>How collaboration in creative work impacts identity and motivation</i> -Moran and John-Steiner (2004) from Book: <i>Collaborative Creativity</i> -Mielle and Littleton (2004)	•Discussion around creativity in terms of learning and teaching experiences •Suggestions on working with students as a creative activity	•Summary session 3 •Video clips interviews	•Notes in field diary •Audio recording of the session •Transcription of the recording
session 4	12/02/2010	CELT room AM207	•3 participants •2 facilitators		Suggestions on the work around creativity that the group could undertake	Summary session 4	•Notes in field diary •Audio recording •Transcription
session 5	23/02/2010	CELT room AM207	•5 participants •2 facilitators	•Lunch seminar •2 academics brought papers to share with the rest of the group: *Friedlander J and Iwaniec H (2009) <i>What is the Parity Phenomenon?</i> Notices of the AMS, Vol 56, number 7, 817-818 *Schreiner P (2010) <i>Cooperativity Tames and Reactive Catalysts</i> , Science, vol 327, 19 February 2010 •2 others brought one piece of software (engineering) and a blog (Gaelic) they created in their respective classrooms to share with the rest of the group, but no time to use them during the session	Participants shared papers with the rest of the group from their own disciplines and tried to engage in an interdisciplinary dialogue	Summary session 5	•Notes in field diary •Audio recording •Transcription
session 6	29/03/2010	CELT room AM207	•5 participants •2 facilitators	Pecha Kucha presentations by participants	Pecha Kucha session on "academic inspiration" and creativity	•Summary session 6 •Video recording of the session	•Notes in field diary •Audio recording •Transcription of the audio •Video recording
session 7	20/05/2010	CELT room AM207	•2 participants presenting •3 participants attending •2 facilitators	Pecha Kucha presentations by participants (one participants brought also a 3-D stellation object for her presentation on geometry)	Pecha Kucha session 2 on "academic inspiration" and creativity	•Summary session 7 •Video recording of the session 2	•Notes in field diary •Audio recording •Transcription of the audio •Video recording

Appendix V: CG participants

Participants session 1	M or F	discipline	seniority	role during the session
Participant (A10)	F	English	Lecturer	participant
Participant (A8)	F	German	Lecturer	participant
Participant (A6)	F	German	Lecturer	participant
Participant (A3)	F	Mathematics	Lecturer	participant
Participant (A1)	M	Chemistry	Lecturer	participant
Facilitator (F1)	M	CELT	Director of CELT	participant-facilitator
Facilitator (F2)	F	CELT	PhD student	participant-facilitator-observer
participants session 2				
Participant (A9)	F	English	Lecturer	participant
Participant (A3)	F	Mathematics	Lecturer	participant
Participant (A1)	M	Chemistry	Lecturer	participant
Participant (A2)	F	Mathematics	Lecturer	participant
Participant (A6)	M	German	Lecturer	participant
Participant (CELT guest)	F	Icelandic visitor	Lecturer	participant
Facilitator (F1)	M	CELT	Director of CELT	participant-facilitator
Facilitator (F2)	F	CELT	PhD student	participant-facilitator-observer
participants session 3				
Participant (A6)	F	German	Lecturer	participant
Participant (A2)	F	Mathematics	Lecturer	participant
Participant (A3)	F	Mathematics	Lecturer	participant
Participant (A1)	M	Chemistry	Lecturer	participant
Participant (A8)	F	German	Vice-Dean for the first arts experience	participant
Participant (A4)	M	Engineering	Lecturer	participant
Facilitator (F1)	M	CELT	Director of CELT	participant-facilitator
Facilitator (F2)	F	CELT	PhD student	participant-facilitator-observer
participants session 4				
Participant (A2)	F	Mathematics	Lecturer	participant
Participant (A3)	F	Mathematics	Lecturer	participant
Participant (A1)	M	Chemistry	Lecturer	participant
Facilitator (F1)	M	CELT	Director of CELT	participant-facilitator
Facilitator (F2)	F	CELT	PhD student	participant-facilitator-observer
participants session 5				
Participant (A2)	F	Mathematics	Lecturer	participant
Participant (A3)	F	Mathematics	Lecturer	participant
Participant (A1)	M	Chemistry	Lecturer	participant
Participant (A4)	M	Engineering	Lecturer	participant
Participant (A5)	M	Acadamh/IT	Lecturer	participant
Facilitator (F1)	M	CELT	Director of CELT	participant-facilitator
Facilitator (F2)	F	CELT	PhD student	participant-facilitator-observer

participants session 6				
Participant (A5)	M	Acadamh	Lecturer	not physically present but presentation screened
Participant (A4)	M	Engineering	Lecturer	participant-presentation
Participant (A1)	M	Chemistry	Lecturer	participant-presentation
Participant (A7)	F	English	Lecturer	participant-presentation
Participant (no quotation)	F	CELT	Lecturer	participant-presentation
Participant (F1)	M	CELT	Director of CELT	participant-presentation-facilitator
Facilitator (F2)	F	CELT	PhD student	participant-observer-facilitation
participants session 7				
Participant (A2)	F	Mathematics	Lecturer	participant-presentation
Participant (A3)	F	Mathematics	Lecturer	Participant-presentation
Participant (A10)	F	Acadamh/Gaelic	Lecturer	participant
Participant (A12)	F	Adult Education	Lecturer	participant
Participant	F	CELT	Educationalist Developer	participant
Facilitator (F2)	F	CELT	PhD student	participant-observer-facilitation
Facilitator (F1)	M	CELT	Director of CELT	participant-facilitator

Appendix VI: Screenshots of Blackboard site for the CG

Blackboard Academic Suite - Microsoft Internet Explorer

Address: http://blackboard.nuigalway.ie/webapps/portal/frameset.jsp?tab_id=_2_1&url=%2fwebapps%2fblackboard%2fexecute%2flauncher%3ftype%3dCourse%26id%3d_945

NUI Galway
OÉ Gaillimh

Blackboard

Home Help Logout

My NUI Galway Course Catalog NUI Galway Library

Announcements
Thoughts & Reflections
Materials
Project Information
Staff Information
Learning Outcomes
External Links
Discussion Board

Tools
Communication
Course Tools
Course Map
Control Panel
Refresh
Detail View

CREATIVITY IN HIGHER EDUCATION (6H 0052) > MATERIALS

Materials

Pecha Kucha session 1
<http://capture.nuigalway.ie:8080/ess/echo/presentation/7e16ff2-a35a-482a-8403-fbe3ed00a580>

PK2 second session
Two brave souls step into the breach and deliver great sessions even despite exploding computers and frazzled host!

Interviews and perspectives
A collection of interviews and presentations gathered from a variety of sources.

Papers
Selected papers from the extensive creativity research literature.

Summary session 1
[Creativity group first session.doc](#) (27 kb)

Summary session 2

Local intranet

Blackboard Academic Suite - Microsoft Internet Explorer

Address: http://blackboard.nuigalway.ie/webapps/portal/frameset.jsp?tab_id=_2_1&url=%2fwebapps%2fblackboard%2fexecute%2flauncher%3ftype%3dCourse%26id%3d_945

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Summary session 2
[Creativity harbour hotel session Group summary.doc](#) (28.5 kb)

Summary session 3
[Notes third meeting 4th of Feb creativity group.doc](#) (12 kb)

Summary session 4
[Creativity group meeting 4 feb 12th notes for group.doc](#) (15.5 kb)

Summary session 5
[notes for the group 5th meeting creativity group 23rd of February 2010.doc](#) (28 kb)

Summary session 6-Pecha Kucha
[Pecha Kucha session 1 29 mars 2010 notes for the group.doc](#) (14.5 kb)

Summary session 7-Pecha Kucha 2
[Pecha Kucha session 2 for the group.doc](#) (13.5 kb)

"What does creativity mean for you?": NUI Galway Interviews

Local intranet

Blackboard Academic Suite - Microsoft Internet Explorer

Address: http://blackboard.nuigalway.ie/webapps/portal/frameset.jsp?tab_id=_2_1&url=%2fwebapps%2fblackboard%2fexecute%2flauncher%3ftype%3dCourse%26id%3d_945f

Blackboard

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CREATIVITY IN HIGHER EDUCATION (AH.0052) > EXTERNAL LINKS

External Links

- The Imaginative Curriculum - Archive**
The papers/reports produced during the UK's Imaginative Curriculum project.
- Keith Sawyer's blog on creativity and innovation**
Keith's observations and comments on topics around creativity and innovation. Often points to interesting papers and other projects.
- Iain's collection of feeds and items**
I use netvibes to harness various feeds from across the web. This page gives some interesting links relevant to higher education and you might want to bookmark it or use it to see what the current headlines are.
- Lateral thoughts**
not wishing to give implicit credence to the EdB fiction, however here are some links of 'ideas', design, etc..
- Open Courseware**
Open Courseware and other resources on broad theme of creativity, imagination and innovation.
- collective deadline: so browsing whatever you want to call it!**

Local intranet

Blackboard Academic Suite - Microsoft Internet Explorer

Address: http://blackboard.nuigalway.ie/webapps/portal/frameset.jsp?tab_id=_2_1&url=%2fwebapps%2fblackboard%2fexecute%2flauncher%3ftype%3dCourse%26id%3d_945f

Blackboard

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Course Map
Control Panel
Refresh
Detail View

CREATIVITY IN HIGHER EDUCATION (AH.0052) > COMMUNICATIONS > DISCUSSION BOARD

Discussion Board

Forum

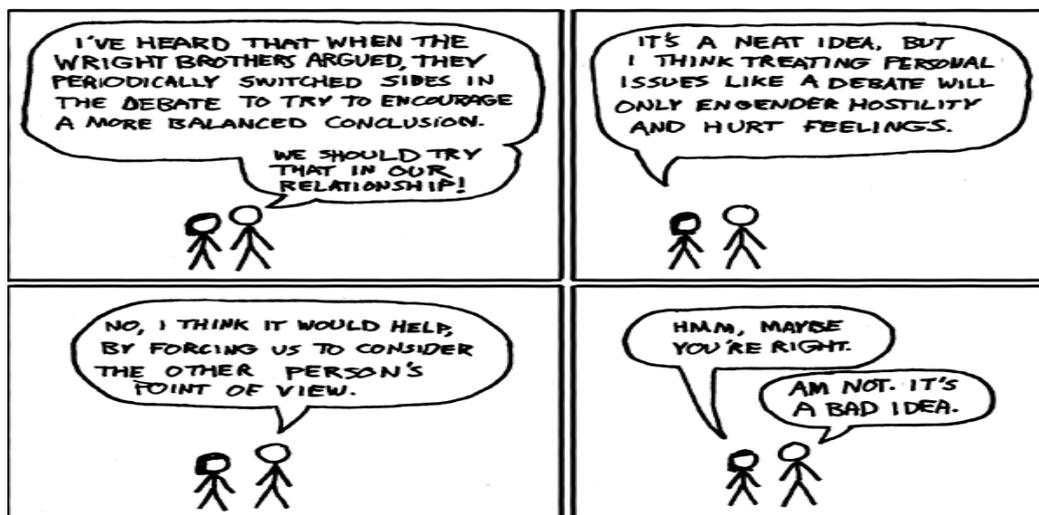
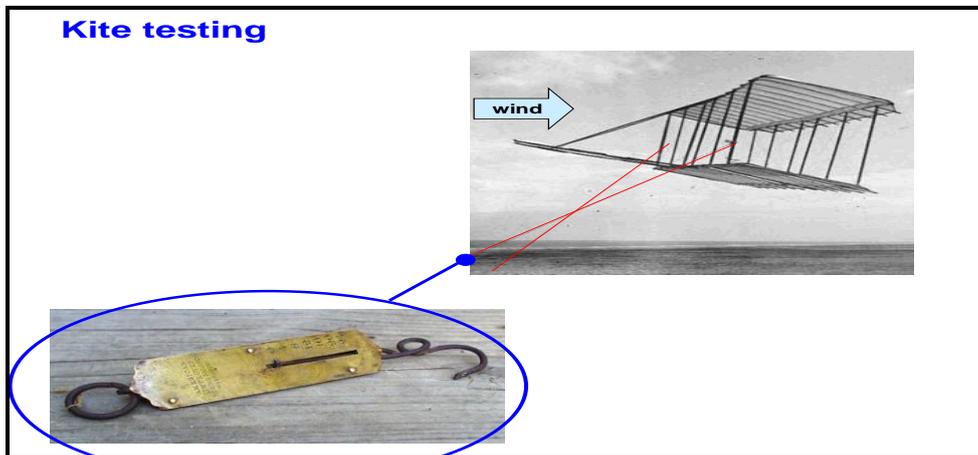
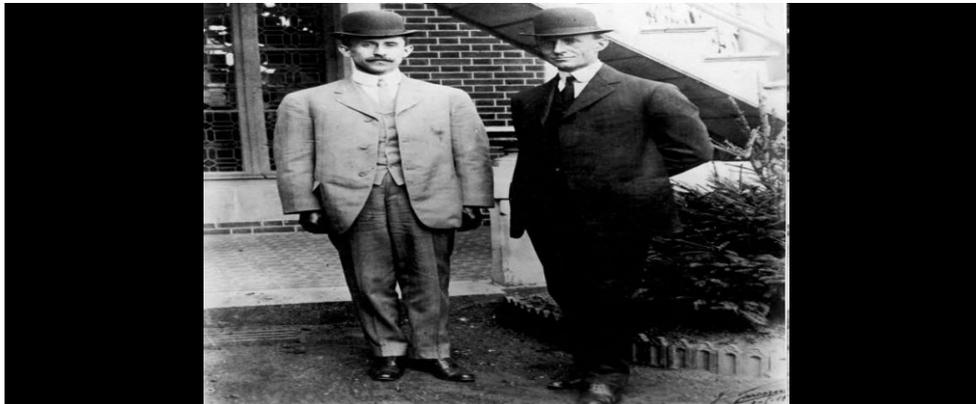
Display Order	Forum	Total Posts	Unread Posts	Total Participants				
1	Chit-chat	5	0	3	Modify	Manage	Remove	Copy
2	Myths	3	0	2	Modify	Manage	Remove	Copy
3	Creativity as process versus creativity as outcome	1	0	1	Modify	Manage	Remove	Copy

OK

Local intranet

Appendix VII : Examples of slides of Pecha Kucha presentations prepared by the group participants

Presentation by participant (CG,A4) (engineering):

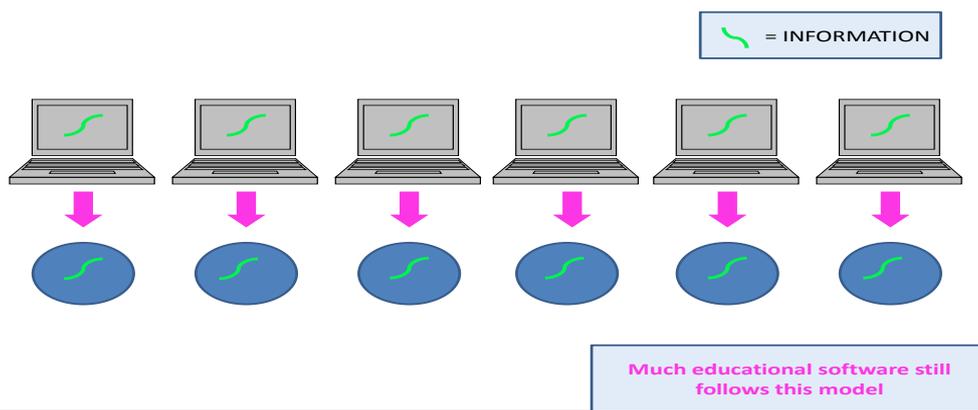


www.3

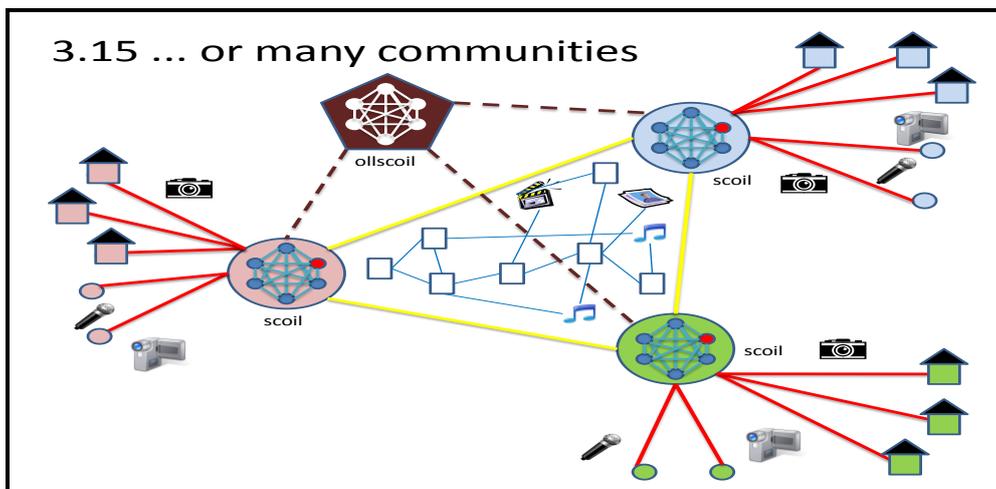
Communities of Learners through Web 2.0

“Millions of people now interact through blogs, collaborate through wikis, play multiplayer games, publish podcasts and video, build relationships through social network sites, and evaluate all the above forms of communication through feedback and ranking mechanisms.” (Warschauer & Grimes, 2007)

1.2 Technology-Supported Transmission



3.15 ... or many communities



Presentation by participant (CG, A7) (English):

How I got here...



What drives me...



Appendix VIII: Questionnaire1 for CG participants

Creativity Group-Questionnaire 1

Welcome to the exciting new project exploring creativity in higher education. We are delighted that you are interested in participating. To get the project started, we'd like to ask for your perspective on a number of key questions and would greatly appreciate it if you could spend a little time completing this short survey. We understand that one of the ever-present burdens of working in contemporary academia is relentless form-filling and surveys, but we know that you'll see this in an entirely different light because it is a fascinating topic and will enable all of us to start really considering fundamental questions about the nature of higher education as well as having fun! ;-) When you have completed your answers, please remember to click the "submit" button at the bottom of the page. Thank you.

* Required

Please enter your name and academic discipline. * please remember we will treat your answers confidentially.

What does 'creativity' mean for you? We're interested in your own personal opinions here, so there's no need to consider a legally tight definition!

Within your own academic subject area, what is the role (in your opinion) of creativity? If you can think of any particular examples, feel free to identify those here as well.

Is creativity something that you would more readily associate with research or teaching?

To what extent do you see curricular design (the planning of courses, modules etc) as being a creative endeavour? Would you describe the current approach in your school/college as being 'creative' or 'innovative'? What potential might there be for increasingly creative approaches to be used?

What about creative approaches to the act of teaching or of supporting student learning? What comments do you have about that in terms of the traditions within your discipline as well as your own practice?

In your opinion, what role does creativity play in the student learning process? Do you believe that creativity can be nurtured in students through teaching? Do you believe that creativity is more achievable in some disciplines rather than others; and if so, how?

To what extent do you feel you have freedom to shape your courses, your teaching, assessment, etc, or to what extent do you feel constrained? What are the constraints that you would identify?

Is creativity an appropriate attribute for a graduate in your discipline? Is it more readily identifiable with postgraduate rather than undergraduate work, or equally for both? To what extent do you feel that the courses offered by your school actually encourage creativity or innovation amongst the students? Do you have any examples?

How do you personally view 'creativity' with respect to 'critical thinking' as attributes of graduates/students?

What do you hope to get out of this new group and its deliberations/activities?

Any other comments or suggestions?

Appendix IX: Questionnaire 2 for CG participants

Creativity group- Questionnaire 2

We would really appreciate if you could fill out this form! Thank you very much for your help!!!

* Required

Please enter your name and academic discipline. *

Thinking back to your initial expectations, how do you feel now about the 'creativity curriculum' group process/ outcome?

Did you face any difficulties in committing to the group? If so, what were they?

Which activities did you enjoy most? Which activities did you enjoy least?

Did you expect another group process and/or another group outcome?

Do you perceive this type of group work process as a creative one?

How did you feel working in such group environment?

Do you think disciplinary boundaries have been crossed and if so how?

Do you think that this type of group work would have an impact on your academic practices?

Do you see any benefits from such group work to enhance creativity in terms of learning and teaching experiences?

Would you like to potentially pursue further this type of collaborative group activity facilitated by CELT? If yes, do you have any advice for the facilitators in terms of management for another potential similar collaborative enquiry experience?

Did you feel your participation within the group influenced your experience of the Galway Symposium on « Creative thinking-Re-imagining the University », if attended?

What does creativity mean to you after your experience within the « creativity curriculum » group?

In your opinion, what role does creativity play in the teaching process? Do you believe that creativity can be nurtured in academics through such type of group process? Do you believe that it is more achievable for some disciplines rather than others?

Do you feel that disciplinary structure is constraining or enabling your creativity in terms of your teaching?

What do you feel are the circumstances or conditions under which your own creativity flourishes and those which suppress it?

If we value creativity as graduate attributes how should we teach? How should we assess students?

What do we need to do in terms of institutional policy and practice to ensure that we support learners in their creative development?

If creativity is enhanced by certain factors in the workplace, how should we organise ourselves as an academic community to ensure their presence? Is the re-imagination of your present disciplinary communities' mechanisms and boundaries needed?

Appendix X- Interviews thematic analysis

Illustrative sample with transcript Interview 1 - A1

PHASE 1:

Q1. When I say creativity, could you tell me more about it, what does it mean for you?

A1. I suppose creativity by most of definitions, would be directly connected to imagination and the various ways in which imagination can be deployed in certain situations and I suppose **imagination and creativity, each of them means a discovery or an exploration of possibilities beyond the apparent and beyond the obvious^{1,2}**..I think about the academic context recently, **I was talking with someone about the emphasis on methodology within academic research and one of criticisms this scholar had was that if a person implement a methodology, a working method, strictly they can never be wrong in their conclusion, their conclusions can be incomplete but if they are consistent with the methodology it is impossible to be mistaken.** And it seems to me that increasingly in academic work there is an insistence on procedures that disallows the possibilities of being mistaken and I think it is also a disallowance, prevention of the exercise of imagination³ **because imagination is always on the brink of being mistaken⁴**, but it is always on the brink also of discovering something that the rigid application of a methodology which is self-consistent cannot allow you to discover⁵. **discover⁵**. So it seems to me that there is, when we first look at it, a direct contrast or almost a contradiction between what we think as creative work and as academic work. **Creativity allows discovery of new possibilities which sometimes are discovered through accident and through mistakes⁶**; and increasingly academic approaches, right across **the whole wave of academic disciplines, disallows the possibilities of accident or mistake. It works against intuition⁷**, it works against hunches that may or may not to be correct the great there seems to me that every area of human, the great leaps forward, **(2m50s)** have been facilitated by imagination and creativity and by a moving beyond what the methodology of a particular discipline or academic approach would have thought possible at the time. The great thinkers in science, literature, in culture have worked, it seems to me, more frequently through leaps of imagination rather than through the logic of exploring a particular method⁸ **(3m18s)**.

PHASE 2:

•Themes for Interview 1-A1

- Imagination
- constraints of the methodological academic approach
- problem of measurability
- constraints of the structure/system
- discovery
- mistake, risk-taking
- intuition
- creativity as human element versus system
- Creativity result of mastery (method) versus human element intrinsic to human being
- creativity helps to move on, change, go beyond categories
- understanding versus information

•Themes for Interview 2-A2:....

PHASE 3:

Common themes across interviews (a sample):

1) Imagination

- 1 Discovery of new possibilities beyond the apparent, the obvious
- 2 Creativity almost synonymous of imagination which mean a discovery or an exploration of possibilities beyond the apparent and beyond the obvious
- 3 Rigidity of academic working method, stress on procedures which involves no mistake allowed
- 4 Creativity, imagination and right to take risk and make mistake
- 5 Opposition imagination which refers to discovery and mistake, and methodology which refers to rigid system in which discovery not possible.
- 6 Discovery of new possibilities through mistakes/accident
- 7 Academic disciplines works against mistakes/process and intuition
- 8 Opposition imaginative process to academic, logic approach

1,2, 4, 6, 7, 8

2) Methodological academic approach constraint or not.../mastery/expertise/practice 1,3, 5,6, 7, 8

3) problem of measurability

1,4,5,6,7,8

4) constraints of the structure/system

1,2,3,5,6

5) Discovery

1,2,3,4,7,8

6) mistake, risk-taking

1,4,6,7,8

7) intuition

1,4

8) creativity as human element

1,3,4,7,8

PHASE 4:

Theme clusters

1: Academic discourse on discipline/constraints/teaching practice (DISCIPLINE)

1.1: discipline, knowledge, practice

10) Understanding versus information/ pure not applied knowledge

1,2,4,5,6,8

11) Practice versus knowledge

2,3,4,6,7

1.2: mastering and academic expertise

2) Methodological academic approach constraint or not.../mastery/expertise/practice

1,3, 5,6, 7, 8

19) Outcome versus process/work versus moment of inspiration/eureka moment

3,4,8

1.3: structure constraints

4) constraints of the structure/system 1,2,3, 5,6

26) Social pressure/ social recognition as constraint on creativity 8

12) Discipline 2,4

2: Imagination, exploration of unknown (IMAGINATION)

1) Imagination

1, 2, 4, 6, 7, 8

5) Discovery

1,2,3,4,7,8

7) intuition

1,4

3: Individual, being, identity, emotions (IDENTITY)

3.1: human aspect of creativity, identity, being

8) Creativity as human element

1,4,6,8

18) Being, identity, individual

3,4,6,7

23) no expression /expression 7,8

3.2: emotions, motivation

16) Enjoyment, pleasure, engagement, love, motivation versus disagreement, fight

3,4,5,6,7,8

17) Emotions and embodiment 2,4

3.3: autonomy, freedom, confidence, disobedience

6) mistake, risk-taking 1,4,6,7,8

24) Disobedience 4

15) Autonomy, freedom, confidence 3,7,8

27) need of space in mind to be creative 7