

Appendix 3:

Images of Creativity (IB3H50): A Case Study (by Ioanna Iordanou)

1. Course Outline
2. Bibliographies
3. Reflective Piece Analysis

1. Course Outline

Images of Creativity: an Interdisciplinary Approach

IB3H50

Mr Grier Palmer

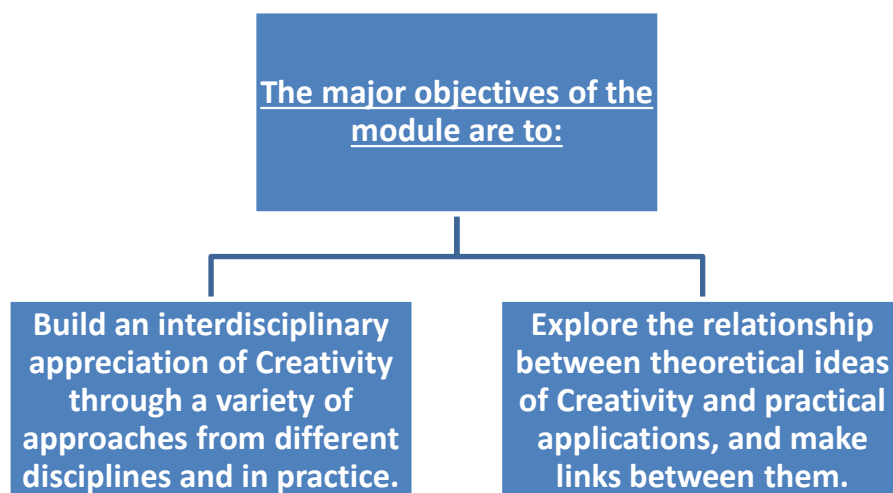
Module leader/ WBS Named Internal Examiner (NIE)

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Warwick Business School, Scarman Road, Room C2.15

Module Outline

This is an interdisciplinary module available to all Warwick University Undergraduates from Year 2 onwards. The module examines and illuminates *Creativity* through a variety of approaches from different disciplines and in practice.



On completion of the module you will be able to:

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- 1 Identify, understand, and express interdisciplinary ideas and notions of Creativity and its various manifestations.
 - 2 Actively engage with a wide range of creative material (texts, films, ideas).
 - 3 Observe, reflect on, and communicate imaginatively your own and others' creative processes.
 - 4 Effectively conceive and present arguments and concepts verbally, in writing, and through active presentation.
 - 5 Solve problems creatively.
 - 6 Combine the understanding of theoretical concepts with practical learning.
 - 7 Appreciate the value of understanding and experiencing various approaches to creativity in relation to your own subject specialism and confidently use them for further study, work, and citizenship.
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How you will learn:

Each week a subject specialist will deliver 60 minutes of disciplinary grounded material followed by 60 minutes in which you and the module leader will develop the learning and interdisciplinary perspectives, including using the week's text/case/film/object.

You will grasp abstract and complex ideas from a range of disciplines, reflect on them and synthesise them creatively.

You will investigate the means by which new ideas are formed, changed, and developed.

You will be expected to:

- Actively engage in active workshops, research questions, team-work, group-project, blogging.
- Work in a group developing a small creative project to be presented in week 10.
- Produce a short reflective piece on the development during the project of your creative process and understanding, plus an essay on a relevant creativity topic.

Module Structure:

The module will run on Tuesdays, 5-7pm in the Teaching Grid, 2nd floor University Library, starting in week 1 (4 October)

The module will be delivered by specialists from various Faculties:

Warwick Business School:

Grier Palmer, module leader and NIE

(<http://www.wbs.ac.uk/faculty/members/grier/palmer>)

Louise Gracia (<http://www.wbs.ac.uk/faculty/members/Louise/Gracia>)

Centre for Cultural Policy Studies:

Dr Chris Bilton

(http://www2.warwick.ac.uk/fac/arts/theatre_s/cp/staff/bilton)

Ruth Leary (http://www2.warwick.ac.uk/fac/arts/theatre_s/cp/staff/leary)

Chemistry:

Professor Peter Sadler (<http://www2.warwick.ac.uk/fac/sci/chemistry/research/sadler>)

English:

Dr Paul Prescott

(http://www2.warwick.ac.uk/fac/arts/english/people/permanentacademicstaffstaff3/pr_escottdrpaul)

Sociology:

Professor David Wilson
 (http://www2.warwick.ac.uk/fac/soc/wbs/subjects/msm/people/d_wilson)

And external creative practitioners:
 Simon M. Woods (founder of European Drama Network,
<http://www.europeandrama.com/>)
 Craig Spivey (Executive Creative Director, The Vital Agency,
<http://www.thevitalagency.co.uk/>)
 Annouchka Bayley (performance artist, director and writer,
<http://annouchkabayley.com/>)

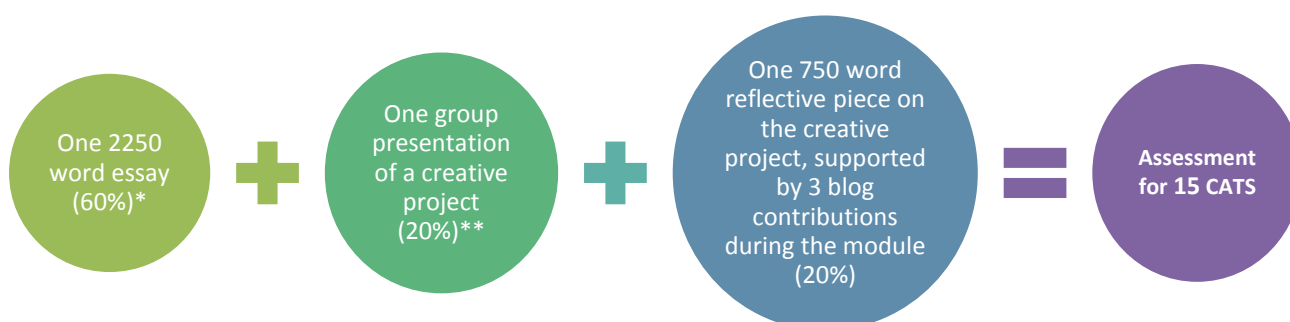
TIMETABLE: Indicative weekly topics:

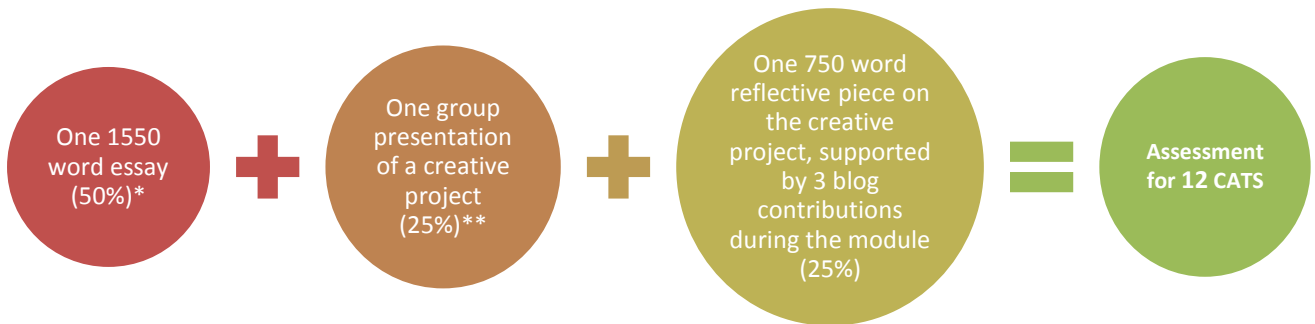
Weeks 1-3 Principles; 4-5, 7 Creatives and Processes; 8-10 Applications; 6 Reading

1. Introduction to 'Images of Creativity' – core and critical concepts	Chris Bilton and Ruth Leary with Grier Palmer;
2. Creative Organisations	David Wilson with Grier Palmer
3. Creative Learning through Performance	Paul Prescott with Grier Palmer
4. Creating Design	Craig Spivey with Grier Palmer
5. Creativity in Film	Simon M. Woods, with Grier Palmer
6. (Reading Week)	NO WORKSHOP
7. Science and Invention	Peter Sadler with Grier Palmer
8. Creative Accounting with Poetry and Dance	Louise Gracia with Grier Palmer
9. Practising Creativity	Annouchka Bayley with Grier Palmer
10. Conclusions; and creative project group presentations	Chris Bilton and Ruth Leary with Grier Palmer

Module Assessment:

Depending on whether you register for 12 or 15 CATs





* The deadline for online submission via my.wbs of the essay and reflective piece is Friday noon, Week 1 of Term 2.

** Week 9's workshop 'Practising Creativity' will be devoted to helping students prepare for the assessed presentation of the project in week 10

Reading

There is an annotated reading list on my .wbs which gives you an appreciation of how the different authors listed both see and think about Creativity.

There is a reading week when you can do more intensive reading. We would encourage you to read the Annotated list **before** the start of the module.

Links

Creativity sites:

<http://creativity-online.com/>

http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity.html

2. Bibliographies

2.1 Annotated Bibliography for Students, compiled by Ioanna Iordanou

This report provides an annotated bibliography of recommended reading on the field of Creativity. The books have been divided into six sections depending on the content of the work. These are: theory of creativity; practical application of creativity; creativity in business and the world of work; creativity in management; the effect of social environment and other factors on creativity; and the importance of creativity in Education. This division is by no means exclusive and it has only been attempted for a more comprehensive understanding of the work's objective. A bibliographical list of all the books in this report is provided in the Appendix at the end of the report.

THEORY OF CREATIVITY

The ***Handbook of Creativity***, edited by Robert J. Sternberg, is a collection of papers by distinguished leading experts on a wide range of topics and issues relating to creativity. Starting with setting the theoretical and historical background, the book examines methods and origins of creativity, personality and environmental factors influencing it, and special topics in creativity, placing emphasis on the hitherto research on the field. The aim of the book is to provide the most comprehensive, definitive and authoritative single-volume review in the field of creativity and creative thinking.

The Cambridge Handbook of Creativity, edited by Sternberg and James C. Kauffman, is a comprehensive collection of scholarly papers on creativity by distinguished psychologists, researchers and educators. It serves as a thorough introduction to the field of creativity and offers wide-ranging perspectives in creativity across various domains, such as the brain and creativity, art, education, everyday life, business, society, and world cultures. Setting the historical background firstly, the book discusses various recently developed approaches to creativity, providing enlightening debates on various theoretical issues affecting creativity.

Rob Pope's ***Creativity: Theory, History, Practice*** offers important new perspectives on creativity in the light of contemporary critical theory and cultural history. The book attempts to cross disciplinary boundaries and build new bridges between the critical and the creative.

PRACTICAL APPLICATION OF CREATIVITY

From a practical application point of view, ***The Mindmap Book: Radiant Thinking – The Major Revolution in Human Thought*** is destined to help the reader use their brain in a more effective and productive way in order to reach its full potential. In essence, the book is a comprehensive guide to Mind Maps[®], a revolutionary method of accessing intelligence, developed by Tony and Barry Buzan. As a technique, Mind

Map offers new ways of using and improving memory, concentration, and creativity in planning and structuring thought on all levels. This is a specially revised edition to celebrate the 21st birthday of the first introduction to Mind Maps in 1974.

In ***Lateral Thinking: A Textbook of Creativity*** Edward de Bono emphasises the importance of generating creativity and creative thinking to enhance the vertical thinking – that is, the process that provides or develops concept patterns – that has been cultivated at school, which is effective, yet incomplete, by means of lateral thinking, that is, the process of restructuring these concept patterns and creating new ones. Lateral thinking is the process of using information to bring about creativity and insight. The book suggests that lateral thinking can actually be developed as an attitude of mind and offers a series of practical techniques that demonstrate how to look at problems from a variety of angles in order to come up with solutions that are as ingenious as they are effective.

In ***How to Have Creative Ideas: 62 Exercises to Develop the Mind*** Edward de Bono claims that creativity is a skill that can be learned, developed and applied and is not a talent possessed by selected few. Moreover, creativity makes life more fun, more interesting and more full of achievement. In this book the author presents 62 games and exercises, using random words, to train the mind in creative thinking and prove that ‘idea creativity’ can be taught. Because this is a type of creativity concerned with changing ideas, perceptions and concepts, de Bono goes back to the idea of ‘lateral thinking’.

CREATIVITY IN BUSINESS AND THE WORLD OF WORK

Examples of lateral thinking in action can be seen at Jurgen Wolff’s ***Do Something Different: Proven Marketing Techniques to Transform Your Business***. If you can carry on doing what you’ve been doing, you’re going to carry on getting to where you’ve been getting. So if you want more business, you’d better do something different. The book, built around 100 case studies, contains advice on how to take charge of the situation creating alternatives. It’s full of easy to read examples of entrepreneurs who took a sideways look at the market and their competitors and succeeded in marketing their products or services by thinking out of the box and following more unconventional paths.

Like de Bono, the authors of ***Sticky Wisdom: How to Start a Creative Revolution at Work*** claim that creative behaviour can be learned and cultivated, but in the world of business either we are discouraged from using it or it is suppressed. By thinking and behaving differently one can start a creative revolution at work that can bring about innovation and, hence, business growth. The secret lies in simple, practical learning about how creativity works. The book aims to promote creativity in business and the world of work in order to achieve business growth but also personal growth and job satisfaction. It also aims to demystify creativity at work by going beyond theory, providing a set of practical tools that will help one to just get on with it.

CREATIVITY IN MANAGEMENT

Moving on to the effect of creativity in management Tony Proctor's ***The Essence of Management Creativity*** examines creativity in management, focusing on creative problem solving techniques for individuals and groups. It is intended for MBA students and managers as a reference work book and it is an ideal summary for undergraduates, postgraduates, other students and aspiring managers wishing to improve their creative problem solving skills and knowledge.

Jane Henry's ***Creativity and Perception in Management*** is a textbook for the Open University Business School course on Creativity, Innovation and Change. It provides students with the principles and practices entailed in the new form of management associated with creative and innovative organizations, focusing on the role and impact of cognition, intuition and perception in the new style of creative management. More specifically, the book examines the role of perception in management, the impact of thought on action, and the role of cognition in creative endeavour. The author examines a variety of diverse personal cognitive styles and shows their implications for creativity, problem solving, communication, decision making and role preference. The text includes student activities, illustrative cartoons, boxed examples and recommended readings.

Dwelling on the effect of creativity on the field of management in ***Management and Creativity: From Creative Industries to Creative Management*** Chris Bilton challenges the stereotypical opposition between 'creatives' and 'suits', claiming that creativity is not just the result of spontaneous discovery and inspiration, but also the product of self-conscious, deliberately managed process. Similarly, management is not only shaped by rational processes, it also involves insight, intuition, creativity, and risk. The book considers creativity and organisational structure and strategy and its purpose is to consider the relevance, even significance, of creative processes and practices in contemporary economy, to prove the thesis that 'the best thinking occurs when the worlds of "creativity" and "business" intersect.'

Following his pre-mentioned work, in ***Creative Strategy: Reconnecting Business and Innovation*** Chris Bilton teams up with Stephen Cummings with the purpose of breaking down the artificial barriers between strategy and creativity, arguing that they are not opposites but complement and strengthen each other, both in business and in creative practice. Actively aligning creative thinking with strategic thinking can enable more effective innovation, entrepreneurship, leadership and organizing for the future. By considering strategy as a creative process (and vice versa), Bilton and Cummings define 'creative strategy' as a mindset which switches between opposing processes and characteristics and which drives every aspect of the business. The authors draw experiences and cases from the music industry, design, sports, fashion, theatre companies, creative and media organisations and dance, as well as what we might regard as more mundane providers of mainstream products and services to uncover the creative connections behind successful strategy.

EFFECT OF SOCIAL ENVIRONMENT AND OTHER FACTORS ON CREATIVITY

Creativity in Context: Update to The Social Psychology of Creativity is an update of Teresa M. Amabile's *The Social Psychology of Creativity*, a classic socio-psychological study on the factors that inhibit or enhance creativity and motivation. *Creativity in Context* incorporates extensive new material, going far beyond the original to provide a comprehensive picture of how the motivation for creative behaviour, and creativity itself, can be influenced by the social environment.

Mihaly Csikszentmihalyi's ***Creativity: Flow and the Psychology of Discovery and Invention*** also looks at external factors that can affect one's creative abilities. The author draws on nearly one hundred interviews with creative people – from scientists to politicians and business people – and thirty years of research to show how creativity can enrich everyone. It starts with a description of creativity and what it is, reviews the way creative people work and live, and ends with suggestions on how to render one's life more creative. The main idea is that a 'creative' idea or product is the result of the synergy of many sources, not just the mind of a single person. Creative process occurs more easily by changing conditions in the environment rather than encouraging people to think more creatively; and it is never a lightbulb moment, but rather the product of years of hard work based on knowledge of the past and favourable circumstances that will allow the ideas to be accepted.

Michael Beaney focuses on the effect of imagination on creativity and the creative process. In his book ***Imagination and Creativity*** he examines some of the different conceptions of imagination that can be found in western philosophical thought, investigates philosophical issues concerning imagination and creativity and the relationship between the two. The author explores 'imagining', how it differs from perceiving and believing, what role images play in one's imagination, what contribution the latter makes in our thought process and our perception of the world. Every chapter offers activities that are intended to encourage thinking about the philosophical issues discussed in the book.

Margaret A. Boden suggests the very interesting idea that computers can come up with new and creative ideas, help people to do so, and, hence, enhance our understanding of creativity. In ***The Creative Mind: Myths and Mechanisms*** Boden suggests that creativity is the ability to come up with ideas and artefacts that are *new, surprising* and *valuable*. It is embedded in any aspect of life, grounded in common abilities like conceptual thinking, perception, memory, and reflective self-criticism, so it is a capacity that everyone possesses. Boden uses examples such as pen-and-ink drawing, jazz improvisation, chess, story writing, physics, and the music of Mozart together with computer models from the field of Artificial Intelligence (AI) to uncover the nature of human creativity in the arts, sciences, and every day life.

CREATIVITY IN EDUCATION

All our Futures: Creativity, Culture & Education is a report produced by the National Advisory Committee on Creative and Cultural Education, chaired by Professor Ken Robinson, as a result of the then Government's effort to help young people reach their full potential and build on their strengths by means of a creative and cultural education. The report, directly addressed to Secretaries of State, argues that in order to achieve these goals a national strategy for creative and cultural education is essential, and called for Government action at various levels.

The great significance of creativity in Education is a key theme in Ken Robinson's book ***Out of Our Minds: Learning to be Creative***. The book explains why creativity matters so much in the complex contemporary world; why people think they are not creative; how people arrived at this point; and what can be done about this. The author's aim is to help individuals understand the depth of their creative abilities and why they might have doubted them; to encourage organisations to believe in their powers of innovation and to create conditions where they can flourish; and to promote a creative revolution in education.

The issue of embedding creativity in education is also very prominent in ***The Element: How Finding Your Passion Changes Everything***. Robinson focuses on the importance of the combination of one's strengths with one's passions and the success that can result from such synergy. The author considers the child bored in class, the disillusioned employee, and those of us who feel frustrated but cannot explain why because we have not discovered our element. The book contains stories of a wide range of people, like Paul McCartney, Arianna Huffington and Matta Groening, who managed to recognise their unique talents and, as a result, make a highly successful living from doing what they love.

APPENDIX: BIBLIOGRAPHY

Allan, Dave, Kingdon Matt, Murrin, Kris and Rudkin, Daz (2002). *Sticky Wisdom: How to Start a Creative Revolution at Work*. Chichester: Capstone

Amabile, Teresa M. (1996) *Creativity in Context: Update to The Social Psychology of Creativity*. Oxford: Westview

Beaney, Michael (2010). *Imagination and Creativity*. 2nd ed. Milton Keynes: Open University Press

Bilton, Chris (2007). *Management and Creativity: From Creative Industries to Creative Management*. Oxford: Blackwell

Bilton, Chris and Cummings, Stephen, eds. (2010). *Creative Strategy: Reconnecting Business and Innovation*. Chichester: Wiley

Boden, Margaret A. (2004). *The Creative Mind: Myths and Mechanisms*. 2nd ed. New York: Routledge

Palmer, To Create and Test Prototype Modules for Interdisciplinary Studies, IATL Academic Fellowship

de Bono, Edward (1997). *Lateral Thinking: A Textbook of Creativity*, 2nd ed. London: Penguin

de Bono, Edward (2007). *How to Have Creative Ideas: 62 Exercises to Develop the Mind*. London: Vermilion

Csikszentmihalyi, Mihaly (1996). *Creativity: Flow and the Psychology of Discovery and Invention*. New York: Harper

Buzan, Tony, with Buzan Barry (1995). *The Mindmap Book: Radiant Thinking – The Major Revolution in Human Thought*. 2nd ed. London: BBC Books

Henry, Jane (2001). *Creativity and Perception in Management*. Milton Keys: Open University Press

Kaufman, James C. and Sternberg Robert J., eds. (2010). *The Cambridge Handbook of Creativity*. New York: Cambridge University Press

National Advisory Committee on Creative and Cultural Education (1999). *All our Futures: Creativity, Culture and Education*. Sudbury: DfEE Publications

Pope, Rob (2005). *Creativity: Theory, History, Practice*. New York: Routledge

Proctor, Tony (1995). *The Essence of Management Creativity*. Harlow: Prentice Hall

Robinson, Ken (2011). *Out of Our Minds: Learning to Be Creative*. 2nd ed. Chichester: Capstone

Robinson, Ken (2009). *The Element: How Finding Your Passion Changes Everything*. London: Penguin

Sternberg, Robert J., ed. (1999), *Handbook of Creativity*. New York: Cambridge University Press

Wolff, Jurgen (2001). *Do Something Different: Proven Marketing Techniques to Transform your Business*. London: Virgin Publishing

2.2 Annotated Bibliography for Faculty, compiled by Ioanna Iordanou

This report provides an annotated bibliography of recommended reading on the field of Creativity. The books have been divided into six sections depending on the content of the work. These are: theory of creativity; practical application of creativity; creativity in business and the world of work; creativity in management; the effect of social environment and other factors on creativity; and the importance of creativity in Education. This division is by no means exclusive and it has only been attempted for a more comprehensive understanding of the work's objective. A list of the table of contents of all the books is provided in the Appendix at the end of the report.

THEORY OF CREATIVITY

The *Handbook of Creativity*, edited by Robert J. Sternberg, is a collection of papers by distinguished leading experts on a wide range of topics and issues relating to creativity. Starting with setting the theoretical and historical background, the book examines methods and origins of creativity, personality and environmental factors influencing it, and special topics in creativity, placing emphasis on the hitherto research on the field. The aim of the book is to provide the most comprehensive, definitive and authoritative single-volume review in the field of creativity and creative thinking.

The *Handbook* is divided into six parts. Part One sets out the major themes of the book and reviews the history of thinking of and research on creativity. Part Two highlights various approaches of studying and researching creativity, for example psychometric, experimental, and biographical. Part Three focuses on the evolution and development of creativity and Part Four discusses internal and external influences on creativity. Part Five examines 'Special topics in Creativity', including cultural, computer based, and organisational creativity, and Part Six offers the conclusion discussing fifty years of research on the field of creativity.

The Cambridge Handbook of Creativity, edited by Sternberg and James C. Kaufman, is a comprehensive collection of scholarly papers on creativity by distinguished psychologists, researchers and educators. It serves as a thorough introduction to the field of creativity and offers wide-ranging perspectives in creativity across various domains, such as the brain and creativity, art, education, everyday life, business, society, and world cultures. Setting the historical background firstly, the book discusses various recently developed approaches to creativity, providing enlightening debates on various theoretical issues affecting creativity.

The book is divided into four sections. Section One provides a historical background of creativity and introduces the key concepts in the field. Section Two discusses diverse approaches to creativity, for example functional, evolutionary, and neuroscientific, many of which have been invented or reconceptualised in the last

decade. The third section focuses on topics that sparkle further discussion and debate, for instance the issue of domain-specific creativity, the influence of motivation, intelligence, and mental illness on creativity, and creativity in the classroom. Finally, in Section Four the editors summarise the main concepts in the book and look at what lies ahead.

Rob Pope's ***Creativity: Theory, History, Practice*** offers important new perspectives on creativity in the light of contemporary critical theory and cultural history. The book attempts to cross disciplinary boundaries and build new bridges between the critical and the creative.

The book is organised in four main parts. Part One argues the need for a refreshed and re-valued conception of creativity, challenging the commonly adopted impression of the 'creative' person as individual 'genius' and the currently dominant model of marketing, advertising, and visual manipulation as the main creative industries. Part Two offers more abstract and theoretical definitions of creativity, intercepting creativity cultures by drawing together key terms that operate across arts and sciences. Part Three takes a historical and cross-cultural view of ancient myths of creation and modern versions of creativity. In this part the author tries to bridge the gap between 'artistic' creation and 'scientific' creativity. Finally, in Part Four the author presents a selection of texts as a critical anthology of creative practices, focusing mainly on creativity in writing and creativity generally in many modes and media, from performing arts to computer games.

PRACTICAL APPLICATION OF CREATIVITY

From a practical application point of view, ***The Mindmap Book: Radiant Thinking – The Major Revolution in Human Thought*** is destined to help the reader use their brain in a more effective and productive way in order to reach its full potential. In essence, the book is a comprehensive guide to Mind Maps[®], a revolutionary method of accessing intelligence, developed by Tony and Barry Buzan. As a technique, Mind Map offers new ways of using and improving memory, concentration, and creativity in planning and structuring thought on all levels. This is a specially revised edition to celebrate the 21st birthday of the first introduction to Mind Maps in 1974.

According to the author, the book has five main purposes: to introduce a new concept in the development of thought – *Radiant Thinking*; to introduce the *Mind Map* as a new tool to take advantage of *Radiant Thinking*; to demonstrate that anyone can control the nature and development of thinking processes and the infinity of creative thinking; to allow for practice in *Radiant Thinking*; and to offer a sense of excitement and discovery in the process.

The book is organised in five parts. Division One discusses the brain function using as examples great brains in history and introduces Radiant Thinking and Mind Mapping as means that can help one improve their mental performance. Division Two focuses

on the distinct skills of the brain's left and right hemispheres, explains their separate use, and demonstrates how the combination of the two can produce fruitful results. Division Three outlines the complete set of laws and recommendations for effectively using Radiant Thinking and Mind Mapping. The fourth Division presents an overview of all the different intellectual tasks – for example decision making, note-taking, creative thinking, etc – one can successfully perform with Mind Maps. Division Five offers a toolkit of a wide range of Mind Map skills in a variety of areas, for example family, education, and work. Finally, Division Six presents 17 notes by 14 great thinkers in the form of quiz, and the reader is called to guess whom the note belongs to.

In ***Lateral Thinking: A Textbook of Creativity*** Edward de Bono emphasises the importance of generating creativity and creative thinking to enhance the vertical thinking – that is, the process that provides or develops concept patterns – that has been cultivated at school, which is effective, yet incomplete, by means of lateral thinking, that is, the process of restructuring these concept patterns and creating new ones. Lateral thinking, then, is the process of using information to bring about creativity and insight.

The purpose of thinking is to collect information and to make the best possible use of it. Because of the way the mind works to create fixed concept patterns, we cannot make the best use of new information unless we have some means for restructuring old patterns and bringing them up to date. The best use of available information can only be made when one knows how to create new patterns and escape from the dominance of old ones. The author claims that both types of thinking are necessary and complementary of each other. Vertical thinking is selective, while lateral thinking is generative. Lateral thinking enhances the effectiveness of vertical thinking by adding creativity and tempering its rigidity.

The book suggests that lateral thinking can actually be developed as an attitude of mind and enhanced. For this purpose, de Bono offers a series of special techniques, working in groups or individually, that encourage the participants to look at problems from a variety of angles in order to come up with solutions that are as ingenious as they are effective. Through the technique of *challenging assumptions*, for instance, the author emphasises the usefulness of breaking through assumed boundaries to restructure thinking patterns and generate new ideas, not for the sake of dogmatic doubting, but for the sake of making better use of available information. The book offers a variety of such techniques and is not intended to read through at one sitting but it is rather a guidebook to be used gradually while practising the main principles that can render one a more productive and creative thinker.

In ***How to Have Creative Ideas: 62 Exercises to Develop the Mind*** Edward de Bono claims that creativity is a skill that can be learned, developed and applied and is not a talent possessed by selected few. Moreover, creativity makes life more fun, more interesting and more full of achievement. In this book the author presents 62 games

and exercises, using random words, to train the mind in creative thinking and prove that 'idea creativity' can be taught.

At the back of *the book there* are six tables of random words. De Bono offers a number of ways to randomly select words from these tables. The exercises then utilise these random words in different games. In the *odd man out* game, for instance, the reader is instructed to pick four random words and to define a basis on which one of the four is the 'odd man out'. It is suggested that by practicing these random word games one will become a more creative thinker. So the idea is that the creativity 'muscles' are kept fit by regular – if possible daily – exercise.

De Bono goes back to the idea of 'lateral thinking'. This is the creativity concerned with changing ideas, perceptions and concepts. Instead of working harder with them, we seek to change them. This 'idea creativity' is not the same with 'artistic creativity' which is why there is a need for the new term. The word 'creative' has largely been taken over by the arts because in the arts all the work is new and has value. Indeed, in the English language there does not seem to be a separate word to distinguish the creativity of new ideas from the creativity of art.

CREATIVITY IN BUSINESS AND THE WORLD OF WORK

Examples of lateral thinking in action can be seen at Jurgen Wolff's ***Do Something Different: Proven Marketing Techniques to Transform Your Business***. If you can carry on doing what you've been doing, you're going to carry on getting to where you've been getting. So if you want more business, you'd better do something different. The book, built around 100 case studies, contains advice on how to take charge of the situation creating alternatives. It's full of easy to read examples of entrepreneurs who took a sideways look at the market and their competitors and succeeded in marketing their products or services by thinking out of the box and following more unconventional paths.

The book is based around fourteen key marketing principles, each covering a key theme, and provides a wide range of practical tips designed to stimulate the reader to ask themselves what this means for their business. Each principle is backed up by various real-life case studies as an example, presented in a concise and systematised format made up to six elements: the problem; the strategy; the outcome; the lessons; questions to ask yourself; and tips that can be applied to businesses. Offering nearly one hundred examples, from applying for a new job, selling your first book, or even convincing your boss that you are worth a much higher salary, the book suggests that one can easily apply the ways people "think different" before they "do something different" to everything related to the world of work.

The real-life instructive case studies offered by Wolff are examples of lateral thinking in action. It is particularly good for showing instances of unorthodox marketing approaches that worked. The stories are powerful examples of how thinking differently can really crack difficult challenges.

Like de Bono, the authors of *Sticky Wisdom: How to Start a Creative Revolution at Work* claim that creative behaviour can be learned and cultivated, but in the world of business either we are discouraged from using it or it is suppressed. By thinking and behaving differently one can start a creative revolution at work that can bring about innovation and, hence, business growth. The secret lies in simple, practical learning about how creativity works. The book aims to promote creativity in business and the world of work in order to achieve business growth but also personal growth and job satisfaction. It also aims to demystify creativity at work by going beyond theory, providing a set of practical tools that will help one to just get on with it.

Rudkin, Allan, Murrin and Kingdon break creativity up into six behaviours: freshness; greenhousing; realness; momentum; signalling; and courage, and claim that all of us, not just the wacky genius, have creative potential. Broken down in this way creativity becomes like any other sort of activity, easy to talk about, practice and measure. By adopting these behaviours and taking advantage of one's creative potential, the authors claim that people can start a creative revolution at work.

Each chapter presents a range of case studies that help ground the activities in a sense of reality – for example one client managed a breakthrough in their advertising for toothpaste when they started seeing their product as liquid teeth.

CREATIVITY IN MANAGEMENT

Moving on to the effect of creativity in management Tony Proctor's *The Essence of Management Creativity* examines creativity in management, focusing on creative problem solving techniques for individuals and groups. It is intended for MBA students and managers as a reference work book and it is an ideal summary for undergraduates, postgraduates, other students and aspiring managers wishing to improve their creative problem solving skills and knowledge.

The book starts by emphasising the significance of creative thinking in management in order to bring about improved ways of marketing goods, device new production methods, and find new ways to motivate people amongst other purposes. It then goes on to briefly describe common barriers to creative thinking in business, including lack of resources and support from management, fear of criticism, resistance to change, etc, before it centres on creative problem solving methods and techniques that can help reduce many of the barriers to creativity by individuals and teams. These techniques, presented in different chapters and explained by use of simple examples, include: identifying problems and defining them in ways that are most likely to lead to creative solutions; generating more and better ideas; evaluating these ideas to examine advantages and disadvantages, and implementing those ideas that are workable and reliable.

In the final chapter the author reviews recent developments in computer-aided problem solving by means of use of specifically designed software but it must be taken into consideration that, since this is the 1995 edition of the book, the particular chapter seems outdated.

Jane Henry's ***Creativity and Perception in Management*** is a textbook for the Open University Business School course on Creativity, Innovation and Change. It provides students with the principles and practices entailed in the new form of management associated with creative and innovative organisations, focusing on the role and impact of cognition, intuition and perception in the new style of creative management. More specifically, the book examines the role of perception in management, the impact of thought on action, and the role of cognition in creative endeavour. The author examines a variety of diverse personal cognitive styles and shows their implications for creativity, problem solving, communication, decision making and role preference. The text includes student activities, illustrative cartoons, boxed examples and recommended readings.

The book is divided into five sections, namely creativity, perception, style, values, and sustainability, each comprising two chapters. Section One views creativity as a domain-specific skill we all possess and not a generaliseable ability of the chosen few, as traditionally viewed, and focuses on the role of the creative manager and the significance of creativity in organisations. Section Two focuses on the critical role of unconscious learning, tacit knowledge, and intuitive judgement in effective decision making and goes on to discuss how organisational metaphors are changing. Section Three presents five key personality traits and inventories that can measure cognitive styles and goes on to discuss team roles that can bring innovative projects to fruition. Section Four examines the effect of cultural diversity and national values on different management practices and expectations, and highlights some of the ways in which Western assumptions have influenced the practice of development professionally, personally, and globally. Finally, Section Five looks at the way organisations can respond to environmental and community concerns in order to develop economically, environmentally and socially sustainable businesses.

Dwelling on the effect of creativity on the field of management in ***Management and Creativity: From Creative Industries to Creative Management*** Chris Bilton challenges the stereotypical opposition between 'creatives' and 'suits', claiming that creativity is not just the result of spontaneous discovery and inspiration, but also the product of self-conscious, deliberately managed process. Similarly, management is not only shaped by rational processes, it also involves insight, intuition, creativity, and risk. The book considers creativity and organisational structure and strategy and its purpose is to consider the relevance, even significance, of creative processes and practices in contemporary economy, to prove the thesis that 'the best thinking occurs when the worlds of "creativity" and "business" intersect.'

The author highlights the connection between the management of creativity and creative approaches to management by drawing upon creativity theorists like Amabile and Boden, management theorists like Mintzberg and Porter, and the practical experience of individuals working in the creative industries, attempting to re-evaluate the meaning and significance of the creative industries. Finally, the author looks at the place of creative organisations and creative business management in a new 'creative economy'.

The book starts by discussing creativity based on psychological theory, moving on to examine creative organisations, drawing especially on the experience of managing creativity in the creative industries. It then shifts from managing creativity to the creativity of management, considering how 'creativity' is interpreted in management theory. Subsequently, it moves on to discuss creativity in marketing and concludes by examining the political implications of the new 'creative economy' as the basis of a new 'knowledge-based' capitalism.

Following his pre-mentioned work, in ***Creative Strategy: Reconnecting Business and Innovation*** Chris Bilton teams up with Stephen Cummings with the purpose of breaking down the artificial barriers between strategy and creativity, arguing that they are not opposites but complement and strengthen each other, both in business and in creative practice. Actively aligning creative thinking with strategic thinking can enable more effective innovation, entrepreneurship, leadership and organizing for the future. By considering strategy as a creative process (and vice versa), Bilton and Cummings define 'creative strategy' as a mindset which switches between opposing processes and characteristics and which drives every aspect of the business. The authors draw experiences and cases from the music industry, design, sports, fashion, theatre companies, creative and media organisations and dance, as well as what we might regard as more mundane providers of mainstream products and services, to uncover the creative connections behind successful strategy.

The book attempts to dispel five misconceptions which have obscured a more integrated understanding of strategy and creativity, namely that strategy is a discipline different from other business disciplines; that creative thinking and strategic thinking are very different; that growth and recession call for fundamentally different approaches; that today's youth, Generation Y, is essentially different from everybody else; and that innovation, entrepreneurship, leadership and organisation are separate domains. Then, it proceeds to identifying five creative connections that will help an enterprise to survive and thrive into the future, namely the integration of creative strategy with innovation, entrepreneurship, leadership and organisation. In summary, the authors argue that the key to creative strategy lies in the recognition and reconciliation of apparently contradictory or opposing characteristics and capabilities.

In order to show how different aspects of creative strategy connect together, the book presents a single case study, that of the Royal Shakespeare Company, considering how it enacts innovative ideas, entrepreneurial attitudes, leadership

positions and organisational virtues and how these feed off each other, both in the rehearsal room and in the boardroom. Each aspect of creative strategy is presented in a single chapter, followed by a section of the case study.

EFFECT OF SOCIAL ENVIRONMENT AND OTHER FACTORS ON CREATIVITY

Creativity in Context: Update to The Social Psychology of Creativity is an update of Teresa M. Amabile's *The Social Psychology of Creativity*, a classic socio-psychological study on the factors that inhibit or enhance creativity and motivation. *Creativity in Context* incorporates extensive new material, going far beyond the original to provide a comprehensive picture of how the motivation for creative behaviour, and creativity itself, can be influenced by the social environment.

The author discusses new findings from both her own research and from the work of others in the field, detailing not only the ways in which creativity can be killed by social-psychological influences, but also the ways in which it can be maintained and stimulated. The research and the theory have moved beyond a narrow focus on the immediate social environment to a consideration of broad social influences in business organisations, classrooms, and society at large; beyond a documentation of social influences to a consideration of the cognitive mechanisms by which social factors might impact creativity; and beyond subject populations consisting of children and college students to an inclusion of professional artists, research scientists, and other working adults.

Amabile presents a greatly expanded set of methodologies for assessing creativity, and introduces a set of methodologies for assessing the social environment for creativity in non-experimental studies. Throughout, the book maintains a clear focus on a comprehensive view of creativity, how the social context can influence motivation and how motivation, in conjunction with personal skills and thinking styles, can lead to the expression of creative behaviour within that context. The result is a clarified theory of how creativity actually happens, with strong implications for supporting and increasing essential aspects of human performance.

The main body of the book remains the same and the updates, which are a result of the input of various scholars, are presented with a special symbol in the margins of the page. The book starts by arguing the case for a social psychology of creativity by reviewing the writing of several creative persons. It moves on to review existing definitions of creativity and methods of assessing it before it proceeds to present the ones the author has applied in her own, setting the theoretical framework that underpins the discussion of creativity in the book. The second part of the book focuses on the findings of empirical research on social factors influencing creativity, namely evaluation, reward, choice, social facilitation, to name a few. Finally, the last part of the book draws on the practical implications from the research reviewed and future research directions for a social psychology of creativity.

Mihaly Csikszentmihalyi's ***Creativity: Flow and the Psychology of Discovery and Invention*** also looks at external factors that can affect one's creative abilities. The author draws on nearly one hundred interviews with creative people – from scientists to politicians and business people – and thirty years of research to show how creativity can enrich everyone. It starts with a description of creativity and what it is, reviews the way creative people work and live, and concludes with suggestions on how to render one's life more creative. The author's main argument is that a 'creative' idea or product is the result of the synergy of many sources, not just the mind of a single person. Creative process occurs more easily by changing conditions in the environment rather than encouraging people to think more creatively; and it is never a lightbulb moment, but rather the product of years of hard work based on knowledge of the past and favourable circumstances that will allow the ideas to be accepted.

Creativity, as the author views it, is a process by which a symbolic domain in the culture is changed. In order for it to take place, one must pay surplus attention to one's domain, and that is very difficult, since a great deal of one's attention is dedicated to daily self-preservation tasks. This is why creativity can thrive only in places where the circumstances allow for a surplus of attention. The specialisation tendencies of contemporary society could pose a hindrance to creativity. And one of the many paradoxes of creativity is that the creative person is pushed towards specialisation and selfishness, simply because these are demands of their role.

The book is divided into three parts. Part One focuses on creativity as an interaction between a person's thoughts and a sociocultural context, the personality traits of a creative person, the component parts of the creative process, the flow, that is, the enjoyment of engaging in creative work, and the impact of the spatio-temporal surroundings on creativity's success. Part Two of the book reflects on the lives of creative individuals from early to old age and how throughout them they experienced rich and exceptional circumstances that they took advantage of to suit their goals instead of letting external factors rule their destiny. The purpose of this part is to show the reader that one can break from the boundaries of routine and provide for a life wealthier in experiences and, thus, a fuller existence. Finally, Part Three attempts to establish a deeper understanding of what is involved in producing a cultural change, by discussing personal cases in the domains of Word, Life, Future, Culture, and finishes by discussing ways of making one's life more creative.

Michael Beaney focuses on the effect of imagination on creativity and the creative process. In his book ***Imagination and Creativity*** he examines some of the different conceptions of imagination that can be found in western philosophical thought, investigates philosophical issues concerning imagination and creativity and the relationship between the two. The author explores 'imagining', how it differs from perceiving and believing, what role images play in one's imagination, what contribution the latter makes in our thought process and our perception of the world. Every chapter offers activities that are intended to encourage thinking about the philosophical issues discussed in the book.

Part One of the book explores some of these conceptions of imagination through the works of Descartes, Hume, Kant, and Wittgenstein. The central theme in this part is the relationship between imagination, perception, and thought. Part Two focuses on creativity, what is meant by 'creativity', and considers the relationship between creativity and imagination. The author also includes six readings from works of scholars like Alan R. White and Margaret Boden. The activities throughout the book act as a guide through the selected passages and readings.

Margaret A. Boden suggests the very interesting idea that computers can come up with new and creative ideas, help people to do so, and, hence, enhance our understanding of creativity. In *The Creative Mind: Myths and Mechanisms* Boden suggests that creativity is the ability to come up with ideas and artefacts that are *new, surprising* and *valuable*. It is embedded in any aspect of life, grounded in common abilities like conceptual thinking, perception, memory, and reflective self-criticism, so it is a capacity that everyone possesses. Boden uses examples such as pen-and-ink drawing, jazz improvisation, chess, story writing, physics, and the music of Mozart together with computer models from the field of Artificial Intelligence (AI) to uncover the nature of human creativity in the arts, sciences, and every day life.

Boden distinguishes between three types of creativity, the combinational, the exploratory, and the transformational, and explains how far we can expect computers to match them. More specifically, Boden claims that AI techniques can be used to create new ideas in three ways: by producing novel combinations of familiar ideas; by exploring the potential of conceptual spaces; and by making transformations that enable the generation of previously impossible ideas. AI will have less difficulty in modelling the generation of new ideas than in automating their evaluation.

The first Chapter of the book focuses on the mystery of creativity, what it is, how it is possible and how it can be understood. Chapter 2 discusses stories of various people of what it's like to be creative. Chapter 3 focuses on a redefinition of creativity, trying to clarify *what counts* as a creative and distinguishes between mere newness and genuine novelty. Chapter 4 discusses style and structure in the mind and mentions psychological factors that can influence and change them. In Chapter 5 the author shows how a psychological theory of creativity needs to include computational concepts. Chapter 6 focuses on the type of creativity involved when one combines familiar ideas in unfamiliar ways and compares this mental process to those which occur in brain-like, connectionist, computer systems. Chapters 7 and 8 describe and criticise some existing computer models for creative process in the Arts (Chapter 7) and in Sciences (Chapter 8) in order to enhance one's understanding of how people can think creatively about such matters. Chapter 9 explores the role of chance, the relevance of unpredictability, and the relationship between chaos and creativity, claiming that the unpredictability of creativity does not put it beyond the reach of science. Chapter 10 claims that everyone is creative, some people, however,

can be better skilled. Finally, Chapter 11 claims that creativity is a capacity possessed by everyone.

CREATIVITY IN EDUCATION

All our Futures: Creativity, Culture & Education is a report produced by the National Advisory Committee on Creative and Cultural Education, chaired by Professor Ken Robinson, as a result of the then Government's effort to help young people reach their full potential and build on their strengths by means of a creative and cultural education. The report, directly addressed to Secretaries of State, argues that in order to achieve these goals a national strategy for creative and cultural education is essential, and called for Government action at various levels.

The report develops five main themes: the challenge for education that calls for new priorities; the creative potential of people and its positive impact on self-esteem and overall achievement; the freedom and control of creativity; cultural understanding that education must cultivate; and, finally, a systematic approach to creating a creative and cultural education.

The report is made up of four parts. Part One sets out the definitions of and the framework for creative and cultural education. Part Two looks at the implications of a creative and cultural education on the school curriculum, in teaching and assessment. Part Three calls for a broad base of partnerships between schools and other agencies and considers issues of resources and training. Part Four presents a series of recommendations as a framework for a national strategy.

The great significance of creativity in Education is a key theme in Ken Robinson's book ***Out of Our Minds: Learning to be Creative***. The book explains why creativity matters so much in the complex contemporary world; why people think they are not creative; how people arrived at this point; and what can be done about this. The author's aim is to help individuals understand the depth of their creative abilities and why they might have doubted them; to encourage organisations to believe in their powers of innovation and to create conditions where they can flourish; and to promote a creative revolution in education.

Robinson turns on the importance of education in helping people realise their potential by means of, partly, finding their *element*. Exploring the motives behind the design and implementation of the Education system, that currently, instead of helping people achieve this, more often than not displaces them from their true talents, Robinson calls for the need of radical educational and organisational reform that will encourage the development of creativity.

The book is made up of ten chapters. It starts by discussing creativity, what it is, and why it is important in the contemporary world that is in the midst of a global revolution. Having established the need for creativity at a time of constant change, the author then proceeds to discuss the problems of education systems that are nowadays inadequate to meet the needs of a constantly changing world, and how academic training, based on past philosophies and needs, should also look further from intelligence and use the whole spectrum of human abilities and capacities. Having set this background, the rest of the book focuses on creativity and its great significance for one's natural capacities in order to realise their potential, incorporate the element of feeling in one's own existence, create creative cultures in our communities, and incorporate creativity and innovation in organisations. The book concludes with a chapter dedicated to the importance of embedding creativity in education, in order to meet the needs of a constantly changing contemporary world.

The issue of embedding creativity in education is also very prominent in ***The Element: How Finding Your Passion Changes Everything***. Robinson focuses on the importance of the combination of one's strengths with one's passions and the success that can result from such synergy. The author considers the child bored in class, the disillusioned employee, and those of us who feel frustrated but cannot explain why because we have not discovered our element. The book contains stories of a wide range of people, like Paul McCartney, Arianna Huffington, and Matta Groening, who managed to recognise their unique talents and, as a result, make a highly successful living from doing what they love.

The author claims that contemporary education hinders the expression of our natural talents and capacities and renders us unable to know what we are capable of achieving. The author's aim is to offer a richer view of human ability and creativity and the benefits that can derive from connecting with our individual talents and passions. The 'Element' is the meeting point between things we love to do and things we are good at, our passions and our strengths. It is essential for everyone to find their element, not only for personal fulfilment, but also for social stability. Therefore, it is essential to create environments – in schools, workplaces, and public offices – where every person is inspired to grow creatively.

The book is made up of eleven chapters. It starts by introducing the *element*, discussing the importance of understanding one's own intelligence by exploring the preconceived ideas of intelligence and the significance of changing one's mind in a creative way in order to change perspectives. It then moves on to invite the reader to explore what interests them, examines the importance of interacting with people who allow us to be in our element and make us thrive doing so, and fighting against obstacles and oppositions. The author goes on to explain how we can all shape our circumstances with determination and dedication, yet, in order to reach our element we must take advantage of the aid and guidance of others. Finally, the author claims that everyone can achieve anything at any age as long as they take time to step out of the routine, rethink their choices, and revisit the passions left behind. The final

chapter of the book is dedicated to the importance of an 'Elemental Education', the one that cultivates the powers of creativity and imagination.

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Robert J. Sternberg (editor) (2009 [1999]), *Handbook of Creativity*, New York: Cambridge University Press

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James C. Kaufman and Robert J. Sternberg (editors) (2010), *The Cambridge Handbook of Creativity*, New York: Cambridge University Press

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Rob Pope (2010 [2005]), *Creativity: Theory, History, Practice*, New York: Routledge

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Tony Buzan and Barry Buzan (1995 [1993]), *The Mindmap Book: Radiant Thinking – The Major Revolution in Human Thought*, London: BBC Books

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Also by Tony Buzan

Edward de Bono (1997 [1970]), *Lateral Thinking: A Textbook of Creativity*, London: Penguin

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Edward de Bono (2007), *How to Have Creative Ideas: 62 Exercises to Develop the Mind*, London: Vermilion

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Jurgen Wolff (2001), *Do Something Different: Proven Marketing Techniques to Transform your Business*, London: Virgin Publishing

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Principle 1: It's about what *they* want, not what *you* want

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Daz Rudkin, Dave Allan, Kris Murrin, Matt Kingdon (2002), *Sticky Wisdom: How to Start a Creative Revolution at Work*, Chichester: Capstone

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Tony Proctor (1995), *The Essence of Management Creativity*, Harlow: Prentice Hall

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Jane Henry (2001), *Creativity and Perception in Management*, Milton Keys: Open University Press

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Chris Bilton (2007), *Management and Creativity: From Creative Industries to Creative Management*, Oxford: Blackwell

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8. The Politics of Creativity

Chris Bilton and Stephen Cummings (2010), *Creative Strategy: Reconnecting Business and Innovation*, Chichester: Wiley

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Teresa M. Amabile (1996), *Creativity in Context: Update to The Social Psychology of Creativity*, Oxford: Westview

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Mihaly Csikszentmihalyi (1996), *Creativity: Flow and the Psychology of Discovery and Invention*, New York: Harper

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Michael Beaney (2010 [2005]), *Imagination and Creativity*, Milton Keynes: Open University Press

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1. 'Imagination and imagery', Alan R. White
2. 'Imagining and supposing', Alan R. White
3. 'What is creativity?', Margaret Boden
4. 'Creativity and Constraint', David Novitz
5. 'Is imagery a kind of imagination?', Gregory Currie and Ian Ravenscroft
6. 'Creativity and Imagination', Berys Gaut

Margaret A. Boden (2004 [1990]), *The Creative Mind: Myths and Mechanisms*, 2nd edition, New York: Routledge

In a Nutshell

1. The Myth of Creativity
2. The Story so Far
3. Thinking the Impossible
4. Maps of the Mind
5. Concepts of Computation
6. Creative Connections
7. Unromantic Artists
8. Computer-scientists
9. Chance, Chaos, Randomness, Unpredictability
10. Elite or Everyman?
11. Of Humans and Hoverflies
12. Epilogue

National Advisory Committee on Creative and Cultural Education (1999), *All our Futures: Creativity, Culture and Education*, Sudbury: DfEE Publications

PART ONE: FACING THE FUTURE

1. The Challenge for Education
2. Creative Education
3. Cultural Education
4. Meeting the Challenge

PART TWO: A NEW BALANCE

5. Developing the Curriculum
6. Teaching and Learning
7. Raising Standards

PART THREE: BEYOND THE SCHOOL

8. Developing Partnerships
9. Funding and Resources
10. Training People

PART FOUR: A NATIONAL STRATEGY

Looking Ahead

Detailed Recommendations

APPENDICES

Ken Robinson (2011 [2001]), *Out of Our Minds: Learning to Be Creative*, Chichester: Capstone

1. Out of Our Minds
2. Facing the Revolution
3. The Trouble With Education
4. The Academic Illusion
5. Knowing Your Mind
6. Being Creative
7. Feeling Better
8. You Are Not Alone
9. Being a Creative Leader
10. Learning to be Creative

Ken Robinson (2009), *The Element: How Finding Your Passion Changes Everything*, London: Penguin

CHAPTER ONE: The Element

CHAPTER TWO: Think Differently

CHAPTER THREE: Beyond Imagining

CHAPTER FOUR: In the Zone

CHAPTER FIVE: Finding Your Tribe

CHAPTER SIX: What Will They Think?

CHAPTER SEVEN: Do You Feel Lucky?

CHAPTER EIGHT: Somebody Help Me?

CHAPTER NINE: Is It Too Late?

CHAPTER TEN: For Love of Money

CHAPTER ELEVEN: Making the Grade

3. Reflective Piece Analysis (by Ioanna Iordanou)

1. Themes chosen in terms of creativity learning: before and after the module

Before the module:

In their reflective piece, students reflected on their understanding of the meaning of Creativity, the definition of the word, and their thoughts on what determines and influences it before and after the ten-week module.

Upon reflecting on the meaning and their understanding of *creativity* prior to the module, nearly all students maintained that creativity was related to the Arts, especially film, theatre, music and dance, as well as marketing and advertising. The words 'art' and 'inventiveness' actually come up in nearly every script. Moreover, creativity was conceived to be a 'gift', a special insight available to a lucky few, the so called 'creatives'. 'Creatives' were interestingly defined by one student as 'the wackier, less controllable, imaginative people that could imagine new things and express them through these mediums and belonged to the designer, marketing, or entertaining professions.'

Aside from the artistic and ingenuity elements, another, more philosophical characteristic was attached to creativity, that of 'divinity', an 'un-tame, irrational force' that existed only in the minds of divergent thinkers. Additionally, creativity was conceived to be an individualistic activity, the work of a single creative person, the product of 'selfish individual effort.' Interestingly enough, however, the interdisciplinary nature of the module, that brought together academic staff and students from diverse backgrounds and disciplines, engaging them in practical group work, shed new light on the way creativity was conceived by students and how it can be achieved within a group.

As the module was organised and offered within the wider context of Warwick Business School, one student felt that, especially in the initial sessions, creativity was seen and promulgated from the point of view of Business. To be more specific, it was conceived that the module's aim was to promote and achieve creativity in organisations. Still, as the module progressed, the interdisciplinary and multidisciplinary element and action learning enabled them to reflect more on the meaning and value of creativity in the real world.

There were students that pursued the module having no thoughts on and limited knowledge of creativity, its definition and its essence. The opportunity to explore creativity from various perspectives, by means of diverse disciplines and through the eyes and views of various individuals, allowed students to examine it from a well-rounded viewpoint. In this respect, the interdisciplinary and multidisciplinary element of the module seems to have achieved the objective set to build an interdisciplinary appreciation of creativity. 'I learned a lot about cross-disciplinary examples of creativity and myself', wrote one student.

Finally, there were a few students who believed that the module was intended to cultivate their creativity further and render them more creative in a practical way. They all reflected on the complexity of this task and had apprehensions as to whether the course could achieve this. Within the process, however, and as the module progressed and unravelled following the objectives to build an interdisciplinary understanding of creativity and to explore the relationship between

theoretical ideas of creativity and practical applications, they realised that becoming more creative was not the aim of the module. 'I cannot ascertain I am more creative but [the interdisciplinary] knowledge will prove valuable to certain future situations.'

After the module:

Upon completion of the module, students were left with more critical questions on creativity. The fact that it was presented from the point of view of such a diversity of disciplines made it hard to form a systematic perception of it. In their reflective piece many students indicated that they had not shaped a clear definition or understanding of creativity, and this observation is prevalent in nearly all essays. Yet, what the module achieved was to facilitate their discovery and uncovering of its vastness, the wide spectrum of which a student characterised as 'daunting'. 'It is very difficult for one to place their finger on what creativity is', one student wrote. 'My knowledge on the subject is greater theoretically and practically. My viewpoint has broadened and expanded much as I don't know everything about creativity', wrote another.

Nonetheless, various interpretations were ventured. Most commonly, students associated creativity with diversity, novelty and innovation. Additionally, students realised that creativity is not the godsend gift or the 'artistic genius', but can be accessed by everyone, provided the right environment and opportunities to unleash it are there. In this respect, one of the successes of the module was that it helped students recognise that creativity is not an innate quality attributed to hereditary or genetic components but an either deliberate or spontaneous process relying on a combination of traits and factors.

Expanding on this last point, students explored the traits and tools needed to be able to accomplish creativity. 'Knowledge, needs, and necessity are the driving tools for creativity which can take place accidentally yet provide use', maintained one student. Another reflected on strategy as being detrimental to creativity. 'Strategy cannot be applied to creativity', he wrote, 'innovation happens from the smallest process, behaviour and decisions we make [...] Creative thinking is not a single act of brilliance, a one-off performance, but rather a doctrine of life.' This final remark raises a very thought-provoking question. Can strategy be applied to promote creativity and if so in which stages of the creative process is it more applicable?

The most important realisation for students was the clear understanding that creativity is an interdisciplinary phenomenon. The module presented creativity from the perspectives of various disciplines including chemistry, management, English and drama, and sociology. The contradictions of different definitions from the diverse disciplinary standpoints not only suggested the high degree of integration of creativity within such different perspectives but the fact that creativity can be used as a tool of innovation for such disciplines, one student claimed. 'The perception I had of creativity prior to the module was damaging to my understanding of the concept. An interdisciplinary understanding contributes to enriching the way in which one approaches a task or problem', another one wrote. Presenting creativity from an interdisciplinary perspective, the module participants could effectively appreciate its relevance to business, science, philosophy and arts and become more aware of the value of creativity in the Business world. 'Creativity isn't limited to certain industries. Creativity can, in fact, be found in every person.'

Many students commented on the significance of boundaries and constraints to creativity. On the first day of the module students were asked if they were creative in their disciplines. Many of them replied negatively, identifying constraints like deadlines and guidelines that prevented them from being creative. During the course of the module, however, students were asked to come up with creative ideas and apply them, supplied with very limited resources and pressurised by time. They were astonished to discover how the existence of such boundaries and constraints enhances, rather than inhibits creativity. 'To throw away all constraints would be to destroy the capacity for creative thinking', one student concluded. 'True creative freedom encompasses the ability to challenge and redefine those rules.'

One of the major accomplishments of the module was the active reinforcement of reflection and critical thinking. Due to this, many students claimed they had the opportunity to reflect and learn something new about themselves. 'I realised that I'm not just a business person but I have the ability to think creatively', wrote one student who had associated the Business world with a very dry and mechanical way of thinking. 'The module offered deep insight into the realms of creativity that I did not know existed. Levels of critical reflection helped me to think out of the box. This will serve well in life and workplace', another student maintained. 'The module allowed me to discover my access path to creativity. Creativity is free of any disciplinary boundaries and if there is willingness it can be expressed by anyone, anywhere and anyhow.'

Overall, the learning that took place was very valuable. The module's objectives, to build an interdisciplinary approach to creativity and to explore the relationship between theoretical ideas of creativity and practical applications seem to have been achieved. All students commented very positively on the combination of theoretical ideas and practical applications, with a particular emphasis on the learning that takes place as a result of the two. The module 'taught me the wonders of working with no boundaries and understanding why something so subjective and debatable is in great demand today. I have become confident in my approach and learned to appreciate all forms, shapes and sizes creativity presents itself in, rather than disregarding it and leaving it to the right brained individuals.' Overall, students commented on their learning a new approach to things while being encouraged to experiment with their own creativity. Moreover, they discovered that one cannot simply define a person as creative or uncreative while creativity is or can be present in all aspects of life.

2. Breakthrough moments: learning through the student process.

In their reflective piece students commented on their breakthrough learning moments, those instances that they discovered something completely new and astonishing.

The main 'breakthrough moment' commented on by nearly all students was the realisation that *constraints*, like time and resources, actually enhance rather than limit creativity. This process was initiated by Dr Paul Prescott's seminar on Creative Learning through Performance. Dr Prescott asked the students to create a play out of a few lines in five minutes. Students were actually pressurised to be creative with limited time and restricted resources. After the initial astonishment students were

pleasantly surprised to realise that what they came up with was not only creative but the whole process was incredibly enjoyable. In this respect, students learned that creativity can sometimes be triggered by forced conditions and be at its highest when there are presented with boundaries and pressure. 'The time barrier was more helpful, we had to come up with a decision quickly', one student wrote. The lesson from this experience was clear: 'We could see that we can finally stop complaining about rules and use the barriers and constraints in order to generate a creative outcome.'

Another breakthrough realisation for students was the idea of *re-creating*. As previously mentioned, prior to the module most students had associated creativity with novelty, innovation, and originality. Students were astonished to realise that creativity does not necessarily mean novelty and innovation but re-creating something already existing, assigning a diverse value and meaning to it. The example of Shakespeare's plays being inspired by already existing tales and fables was a striking realisation commented upon by many students. Dr Prescott's talk on the Faustian Myth also enhanced the idea of how dualistic creativity actually is. The third breakthrough moment for the majority of the module participants was the combination of creativity and the discipline of *Accounting*. The module was attended by numerous Accounting and Finance students who were fascinated by how 'creative' accounting can be. Louise Gracia's seminar on Creative Accounting with Poetry was 'one of the most poignant moments of the module.' Students discovered that accounting can be applied to art forms such as poetry as long as there is a change of perspective, which is vital in the creative process: 'by looking at one discipline through the lens of another we can discover new things.' The combination of Accounting with Poetry demonstrated how even the most constrained, traditional disciplines have the potential to have creativity integrated within it, and helped the module participants see such a structured and 'conservative' discipline in a complete different light.

From a practical point of view, the *group dynamics* was another breakthrough moment for the students. For many of them it was the first time they were asked to form groups with people from different disciplines and, hence, with diverse knowledge and understanding of creativity. In this respect, group members had the opportunity to gain insight into how others from different backgrounds and courses viewed the module and found some of their opinions fascinating. 'It was great to see how a group can help spur creativity and finding our ideas develop', one student reflected. As in most instances of group work, diversity of opinions brought about tension and insecurity at times. However, this had a positive effect, as 'group tensions were instrumental to different views coming out and the joy of working in an interdisciplinary class.' In fact, a student appositively reflected that the group-work practice helped them enhance a 'key life skill', the balance of give and take. Overall, the discovery of creativity as a process and all the elements that it entails was breakthrough knowledge for the students. The predominant association of creativity with the Creative Arts and Literature, as the exclusive gift of the 'artistic genius' meant that many students perceived it as mysterious and neglected concept they had not dealt with prior to the module. In this respect, quite a few students did not know what to expect from it. During the module students became aware of the fact that creativity is a process driven by necessity and motives and can take place

anywhere as long as there is need. Most importantly, a breakthrough realisation was that creativity is the product of collaborative work. Very poignantly an Arts student observed that 'the business aspect of the module helped me realise that creativity is often a collective effort with more than just one person involved. If a musician makes a piece of music he is satisfied with, it is a personal creation, with the help of managers, finance, marketing divisions and sound engineers it becomes a great social creation.'

3. Delivery methods:

Intersdisciplinarity was the key element of the module. The interdisciplinary approach involved bringing a great variety of specialists from various fields – including Design, Sociology, Film, Chemistry, and Accounting, each of whom had a diverse and flexible approach to their teaching technique. More specifically, each week a subject-specialist delivered a 60 minute workshop on disciplinary grounded material. This was followed by a 60 minute discussion between the module participants and module leader on the group's learning and interdisciplinary perspectives, including using the week's text/case/film/object. Interdisciplinarity, combined with interaction and reflection on abstract and complex ideas from a range of disciplines, lecturing, as well as the practical application of group work were the main teaching characteristics of the Images of Creativity module. The module was deliberately not focused, intentionally attempting to integrate variety. By means of exploring, experimenting, practising, and reflecting, students were reinforced to step out of their discipline and comfort zone and see from different viewpoints. This innovative approach, combined with the other pioneering features of the module, was challenging in many ways for the students.

The interdisciplinary element, backed by the interactive way in which the module was taught was 'crucial for the students' learning.' The teaching approach involved *interactive, experiential, and open space* learning, where students actively engaged in lively discussions, dramatisations, and other practical applications of the disciplinary material. 'I was really surprised by the way the module was run and captivate by it', one student wrote. 'There was an enormous number of tasks, very challenging for those reluctant to get out of their comfort zones.' Another student characterised the teaching approach through playing and engaging as something 'never used before' and, most importantly, 'unforgettable experience'.

The interactive element of the module was commended upon by many students. In his reflective piece one student wrote that all the interactive class discussions were 'a breath of fresh air', while another called it an 'extra-ordinary flexible setting'. The module participants found this teaching style very relaxed, as everyone was welcome to 'voice their opinions freely without feeling they might be incorrect.' The environment was indeed very interactive. Commenting on the combination of interaction, theory, and practice, a student claimed that 'it was healthy to have elements in class that put me on my toes, and that challenged me to step outside my comfort zone.' Another mentioned that through this variable method of delivery, 'much as it made it difficult to remember who said what, yet, I actually learnt throughout the term, as opposed to teaching myself when approaching assessment.'

Open space learning was another prevalent feature of the teaching methods. Students were encouraged, even required, to move and be active. The movement enhanced their learning and many of them were surprised to realise how much more enjoyable and effective learning can be while actively moving in the classroom. 'We had an incredible amount of fun in the lectures', one student wrote. There was ample space (physically and metaphorically) for students to experiment and improvise. The possibility of 'sitting just about everywhere' rendered the learning experience very 'comfortable' and 'removed all the constraints to learning.' The ambience of the Teaching Grid was particularly reflected upon as 'very conducive to the module' and a 'unique experience.' Very pertinently, one student argued that 'learning in such an environment completely erased feelings of embarrassment in expressing ideas and intuition, it boosted morale and sparkled appreciation amongst peers.'

As already mentioned, the multi-disciplinary and inter-disciplinary element of the module was one of its most distinct features, as the 'phenomenon of creativity opened up to us from a wide range of perspectives.' Indeed, students were exposed to a wide range of fields, from the Arts to Science. 'The different visiting lecturer offered a new perspective on creativity', a student wrote. It was 'amazing to learn about Creativity from the perspective of so many different disciplines', wrote another. Almost every guest lecturer made me say "I never looked at this that way" or "I never would have thought about it like that." Moreover, students reflected on their colleagues' contribution to the weekly seminars by means of their diverse knowledge. 'Great discussions were generated which were fuelled by the fields we were studying that week and the different disciplines were coming from.'

Overall, the overwhelming majority of the comments on the methods of delivery of the module were extremely positive. The open space, engaging environment, and welcoming ambience, combined with practical learning and experimentation was highly appraised and appreciated by students. Even from the very first day, when students were given name badges, the diversity of the module was sensed, as, according to them, finally they were seen as individuals with names, it was finally more personal. The students found the module pleasantly different, engaging and fun. 'I found myself wanting to draw and paint', one student wrote. 'I developed academic and practical skills', wrote another. 'I was not used to divergent thinking. But as the module progressed I became more capable of thinking out of the box.' More appositely, a student argued that the module 'put the learning process in focus rather than the end result.' It was indeed, that interactive and open space approach that was, according to a student's words, 'crucial for creating a real learning environment'.

4. Assessment Methods:

Students were assessed by means of four different methods: One 2250/1750 word (depending on CATS) essay on any topic relevant to their learning from the module; one 750 word reflective piece on the module and their experience of it; one group project presented by means of a group presentation on the final day; active blogging throughout the module. So, the module's assessment methods encompassed the

learning experience from different angles and in a variety of ways, some of which seemed unconventional from students of certain academic background.

In their *reflective pieces* students reflected on the wide spectrum of freedom and independence with regard to their choice of *essay* topic. This placed students outside their comfort zones and stroke them as a completely new and challenging experience which some viewed in a positive and some in a negative light. 'When it comes to the written essay I feel I've been thrown in at the deep end with little information from the term to put into the essay', reflected one student in their module feedback form. 'I wish the assessment was a little more precise in its needs and not so open to interpretation', wrote another. Yet, not to be assigned a set topic for the essay, as well as the other assessment material, was actually viewed in a very positive light. 'I could write on what genuinely appealed to me in the module. I could question why science (as a social scientist) and creativity always seem so separated. So I could select a topic both interesting to me and relevant to the module. For the first time I could enjoy researching and writing.'

Blogging was considered to be a very good and practical idea, as students could actively communicate and exchange opinions any time in a very interactive manner. A student commented on the fact that its compulsory element took away the 'informal collaborative aspect of it'. Still, blogging contributed to the collaborative manner in which the module was run, encouraging active critical thinking and reflection.

The *group project* was the most commented upon assessment method as well as element of the module. The most commonly reflected upon characteristic of the group project was the fact that for most students it was the first time they were not given a step by step explanation of their task. The expectations clearly set by most assessment methods in Higher Education were not part of this module. Students were given 'very little direction and very wide scope to be creative.' In fact, this new experience proved to be much tougher than expected for quite a few module participants. The toughest constraint was 'having no constraints and organising ideas in a coherent yet creative manner.' The novelty of pursuing a group project without clear instructions presented a number of new challenges for students. Firstly, focusing on the end result without prior thinking or strategy led to wasted time for a few groups. 'We fell for the misconception of executing a task without having a clear vision of why we do it.' Secondly, preconceived ideas of the association between creativity and the Arts led to even more frustration. 'The fallacy that creativity is performed only through artistic behaviours misguided our discussions and led to a wasted time.' The result, however, was extremely positive. Each presentation was different much as the same material was used. 'I have to say I don't believe I have ever enjoyed doing a project at university as much as I have putting together the Images [of Creativity] presentation.' The reality is, however, that this type of group work allowed the students to grasp a clearer understanding of team work and interaction outside the lecture theatre.

The issue and effect of boundaries and constraints in creativity re-emerged, but this time the module participants discovered and experienced it in practice. The wide scope of the project had a profound effect. 'In our creative project we felt that the task would have been easier had we been told what to do more specifically – had some constraints', a student reflected. 'It was challenging to come up with creative

ideas and actually felt the need for constraints' wrote another. Indeed, the open-ended topic and lack of coherent structure was quite challenging to deal with, as great number of ideas flowed within undefined boundaries. Students discovered that 'barriers and boundaries can provide value in focusing a project.' 'I learned a lot about people and creativity.' I was 'apprehensive about working with uncreative people. I quickly realised that everyone has creative ideas.'

The second mentioned element of the project was the diversity of disciplines and, hence, viewpoints within the formed teams. Students were encouraged to form teams between people of diverse disciplines in order to instigate more creativity. They were asked to 'approach the presentation without theory or content and rather our feelings and personal opinion.' As a result, differences of opinion were prevalent and most certainly commented on. 'Creative tensions [were] created as we were trying to merge', one student wrote. This setting, however, helped the students realise how differently everyone thinks and how diverse, if not confined, an individual's thoughts on and perception of creativity is. In fact, most students agreed that there was a great advantage to involving different disciplines and personalities within a team, as the outcome encompassed a wider spectrum of ideas within the group. As students realised that creativity meant something different to each one of them, 'this kind of teamwork was refreshing as no single option was ruled out.' In fact, the biggest boundary was having no boundaries. In this respect, collaboration between, at times, contrasting people from diverse backgrounds encouraged new and alternative ways of thinking. 'Overall, we all agreed that it was a valuable learning experience to feel the risk and benefit of group work in order to achieve creativity.'

On the whole, the group project was deemed to be a highly enjoyable and valuable experience for most students. Having an open ended topic with only a common objective while being part of an academically and personality diverse team offered the students the opportunity of, not only academic challenge, but actually a real-life work setting. One student reflected on the project claiming that it 'enriched my understanding of how complex creative projects can be. A variety of views were represented from different disciplines (Management, Engineering, Politics, Philosophy, and Economics) and sharing our ideas proved to be an educational experience. Agreeing upon a format, content, presentation style, meeting times, etc., provided a practical insight into creativity and teamwork.'

5. Questions (Food for thought):

'A good sign of a lesson well learnt is when the students have even more questions at the end of the process. I have learnt a lot from the module but I feel there is a lot more learning left to do', wrote a student. This statement carries a heavy content. In their reflective pieces students reflected on their learning on creativity and the further questions they were inevitably left with while trying to discover and uncover its meaning and essence. A list of these questions follows:

1. How do we value inter-disciplinary creativity without knowledge of all disciplines?
What is value?

What is novel?

2. Does creativity have to be a conscious process at all?
3. Is there such a thing as completely restricted creativity?
4. How can we actually measure creativity?
5. Is creativity a genetic heredity or is it a quality that you can acquire during your life and can actually become creative.
6. Is creativity to do with outcomes or with qualities and processes, such as imagination, originality and fluency?
7. How do we assess creativity?
8. How do we place creativity in the contextual reality of contemporary consumerist culture?
9. An artist may consider themselves to be creative but who says their work is? Is it the critic's job? Does it depend on personal opinion of the audience?
10. What factors have what kind of influence on creativity in what area?
11. Where does the essence of creativity truly lie?

6. Overall module evaluation, feedback, and final observations:

Reflecting on the overall quality and usefulness of the module, students' feedback was overwhelmingly positive. The module successfully achieved what it aimed to accomplish, teach the diversity of creativity in an innovative, valuable, and creative way. 'The module taught me that I should nurture my creative abilities and not be afraid to apply them in what seem to be unusual circumstances', one student wrote. 'I am exceptionally proud over the progress I have made in my critical thinking and application to theories', wrote another. 'I found that I'm not as creative as I thought I was', another one discovered, while another concluded that 'creativity is as unpredictable as the humans who are trying to master it.' The practice on reflection, critical thinking, and experiential learning through a multitude of disciplines was invaluable. 'After this module I see the importance of questioning theories and findings.' It was 'one of the most informative and enjoyable modules I have taken so far at University.'

From the point of view of the delivery of the module, the feedback was also overwhelmingly positive. 'An incredible module that I am so happy to have taken during the term. Keep on allowing different lectures' perspectives, keep on having the interactivity, keep challenging people to think outside the box', was a comment left by a student in their feedback form. The personality of the module leader also seems to have contributed to the module's success. Students appreciated his continuous involvement and encouragement of insightful conversations. 'There are a few lecturers like Grier, who wholeheartedly throw themselves into discussions and the running of modules. Grier even participated in every class/lecture activity and he felt more like a mentor or fellow student than a lecturer who told you what to learn', wrote another.

In their feedback forms students reflected on their learning experience and offered some valuable suggestions about the module. A student claimed that the module

could have lasted longer, as 'I feel that we have only touched upon the surface and there is so much more to learn.' Students also expressed a wish to examine creativity 'from an organisational point of view (in terms of management, team creativity, how workplaces work with creativity etc) as there is a range of theories talking about creativity on organisations.' On this note, another student suggested 'a field trip to a company like Apple or another institution that is more involved in the business world' would have been very useful. A third student proposed a potential collaboration with employers, who could talk about their experience of and need for creativity in their fields. All these proposals demonstrate not only the active involvement and genuine interest of students in the module but also their wish for an even wider range of experience.

In a wider perspective, the interactive, experiential, and interdisciplinary way in which the module was conducted allowed the students the opportunity to reflect on and critically assess the contemporary Education system and the impact creativity could have on it. 'Creativity is suppressed through rigid pressures. Learners cannot add individuality to what they learn or engage with subjects in a deeper way. Education has become a process of learning to pass exams rather than to enrich knowledge', wrote one student. 'This module is what University is all about but fails to do: gathering intelligent and creative people from different disciplines and providing tools and space for them to share and create.'