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Table of Contents
Master in Creativity and Innovation

Nadia Boffa
Exploiting entrepreneurial opportunities: The role of intuition and cognitive versatility. 3

Steven Diacono
Entrepreneurial Opportunity Identification within the circular economy 4

Judie Farrugia
The impact of schooling on students' creativity 5

Dan Irimia
Artistic creativity and the transformative power of psychological pain 6

Jochen Lenders
AguaGente: A feasibility study of an innovative water conservation project in Malta 7

Gordon Pisani
Creating Rubrics to assess entrepreneurship, creativity and innovation 8

Elizabeth Pulo
Future search as a tool to enable an entrepreneurial mind-set in organisations:
AIESEC as a case study 9

Luke Saliba
The preconditions influencing the adoption of innovative medical technologies amongst Health Care Professionals. The case of point of care testing 10
Analise Sammut
‘Going the Distance!’ A study of the relationship between entrepreneurial deliberate practice and firm performance

Geraldine Sammut
Investigating the role of environmental NGOs as change agents in the diffusion of green innovations in Malta

Ruth Schembri
Exploring how employee interpersonal relations affect individual creativity

Nicola Tanti
The exploration of thinking tools for daily decision making

Joanne Zammit
Developing Financial Literacy as a Key Entrepreneurship Skill through an Alternative Learning Programmes
Exploiting entrepreneurial opportunities: The role of intuition and cognitive versatility.

Although ample research has been carried out on the opportunity identification stage, there is still little research available on “why”, “when” and “how” entrepreneurs decide to exploit a business opportunity. Gaining further insight into entrepreneurial behaviour in the opportunity exploitation stage is essential if one wishes to better understand successful entrepreneurship and organisational outcomes. Since entrepreneurs work in high risk and uncertain environments, one might assume that intuition plays an important role in the various stages of the entrepreneurial process.

This study, guided by the sound theoretical principles of the Cognitive-Experiential Self theory, addresses the gap in the entrepreneurial exploitation literature with regards to the role of intuition during this stage of the entrepreneurial process. This study utilizes secondary unexamined data from Baldacchino’s (2013) work to address the question: What is the role of intuition in entrepreneurial opportunity exploitation? In her doctorate work, Baldacchino (2013) investigated the effects of intuition and cognitive versatility on opportunity identification, and how these constructs enable entrepreneurs to become more proficient at identifying opportunities as they gain experience in this field. The unexamined data from the verbal protocols were utilized in this study to examine the role intuition plays in the opportunity exploitation decisions of entrepreneurs.

This study found that intuition plays a significant role in opportunity exploitation, and also reveals interesting findings with regards to the role of other variables used in study, including, analysis, innovativeness and business specific experience on the opportunity exploitation stage.

Keywords: Intuition, Analysis, Entrepreneurship, Opportunity Exploitation, Protocol Analysis
The circular economy is “an economy that is restorative and regenerative by design” (Ellen MacArthur Foundation, 2015, p.5). The concept is gaining increasing attention and is being touted as an economic solution to the degradation of the earth’s natural systems and resource stocks. Policymakers and businesses are prioritising the circular economy due to the economic, environmental and social gains associated with its successful implementation. In this regard, entrepreneurs have been identified as key custodians in leading the transition to a circular economy. Despite this, there is still limited research in this important field, with no mention of concepts such as the ‘circular entrepreneur’ or ‘circular entrepreneurship’ in mainstream entrepreneurship journals.

This dissertation aims to promote circular entrepreneurship and serve as a handle to stimulate research on this type of entrepreneurial activity. First, the research sets out to garner an initial understanding and develop theoretical foundations for this emerging phenomenon. Secondly, it seeks to shed light on how entrepreneurs identify opportunities in the circular economy. Finally, this study aims to gain insights into whether the circular economy is seen as a means towards achieving sustainable development, and whether the objectives of circular entrepreneurship are aligned with those of sustainable entrepreneurship.

A qualitative approach was utilised to explore these issues, using an adaptation of Patzelt and Shepherd’s (2011) model of sustainable opportunity identification to guide the research process. Nine in-depth semi-structured interviews were conducted with circular entrepreneurs sampled across three EU Member States, namely the Netherlands, Ireland and Malta. The data was then studied by means of thematic analysis.

The findings suggest that circular entrepreneurs are motivated by maximising the value of products and materials which in turn satisfies the triple bottom line. The interviews revealed that the circular entrepreneurs identify opportunities as a result of stocks of prior knowledge, motivational factors, entrepreneurial experience and social capital. The study concluded that the circular economy not only achieves sustainability but also appears to go beyond it as negative externalities are designed out of the economy.

Keywords: Circular entrepreneurship
Circular economy
Opportunity identification
Sustainable entrepreneurship
Triple bottom line
Judie Farrugia  
The impact of schooling on students' creativity

This study aimed to explore how the Maltese senior secondary school years can enhance or inhibit students’ creative potential. This investigation was conducted by exploring the perceptions teachers hold about creativity, their classroom practices and external factors such as the environment and educational policies which have a bearing on their endeavours to foster students’ creative potential.

For the purpose of this study, Rhodes’ (1961) Four Ps of creativity is applied as a broad theoretical framework while integrating other theories which suggest that creativity is a phenomenon which is fostered and developed through a multifactorial process and is realised in the convergence of these factors.

Using a sequential mixed-methods approach, 41 teachers working in a State Senior Secondary school completed an online questionnaire. Following the questionnaire, 12 teachers and members of the senior management staff were interviewed. Analysis of data revealed that pressures to prepare students for exams is a major concern for teachers teaching the senior secondary schools years. As a consequence, any attempts by teachers at fostering creativity in the classroom are marginalised when faced with prescribed curricula and time constraints which in turn are major barriers. The findings of this study add supporting evidence that changes in policies are unlikely to bring about desired outcomes unless fixed assumptions as to the purposes of schooling are redefined.

Keywords: Creativity  
Teachers  
Policies  
Time  
Exam Focus
The aim of this study was to investigate the relationship between artistic creativity, psychological pain and personal transformation. Initially, the research question was focused on the relationship between suffering and artistic creativity and it assumed that transformation has some type of role in that relationship. Yet, after completion, it was clear that these three processes are all intimately linked with each other. Furthermore, the study narrowed its focus on 4 main aspects: Healing from suffering, emotional expression, presence and the idea of suffering as a gift. All of these were investigated in relation to artistic creativity. Initially, the study attempted to incorporate diaries, yet the negative reaction from participants to the diaries led to their removal.

In order to gather data, in-depth interviews were used and 8 artists were interviewed. The data from these interviews was analyzed using thematic analysis and a major theory emerged of how all the above-mentioned aspects might work together: In order to heal from suffering, one must resolve an inner conflict. The resolution of this conflict is difficult because it requires the expression and understanding of difficult emotions. In order to express these emotions, one engages in artistic activity which, due to a number of factors, makes emotional expression easier. A main factor which aids emotional expression is the state of presence gained during artistic activities. In turn, this leads to a resolution of the initial conflict by the processing and the understanding of emotion. This resolution can, in other words, be called meaning and it leads to a reinvigoration of one’s self and art.

Keywords: Artistic Creativity, Suffering, Personal Transformation
Jochen Lenders  
*AguaGente: A feasibility study of an innovative water conservation project in Malta*

The interest in the role of social entrepreneurs in tackling climate change is on the rise as an increasing number of social missions arise around the globe. To fully understand the role of these missions and their founders, it is necessary to observe them carefully. For the purpose of this study, the research focused on a practical example: AguaGente, in Malta. AguaGente is an innovative water conservation device designed by the author for the Maltese islands.

A feasibility study on AguaGente formed the base for this research. Parallel to the feasibility study, the research aimed to uncover some of the challenges social entrepreneurs face when operating in Malta. The study featured a mixed methods approach, comprised of an online survey and semi-structured interviews, to fully explore the feasibility of AguaGente and the challenges social entrepreneurs face in Malta. The approach aided in uncovering several challenges for social entrepreneurs which also affected the feasibility study.

The research concluded that AguaGente is a feasible water conservation device and found three major challenges: 1) monetary value is the main driver in sustainable choices, 2) there is a need for more awareness regarding environmental issues, and 3) government holds a decisive role. These challenges proved to have both a direct and indirect impact on the efforts of social entrepreneurs in Malta and contribute to the understanding of local social entrepreneurship.

This study found that the main challenges are not unlikely country specific and that they divert from key findings in social entrepreneurial theories. Thus, AguaGente contributed to the application of social entrepreneurship in the Maltese context.

**Keywords:** Social Entrepreneurship  
Feasibility Study  
Challenges  
Malta
Creating Rubrics to assess entrepreneurship, creativity and innovation

This study focused on the exploration and development of rubrics as a means for learning, assessment and self-assessment of entrepreneurship, creativity and innovation in primary and secondary education in Malta. The relevance of this study is related to the National Curriculum Framework (2012) which introduced ‘Education for entrepreneurship, creativity and innovation’ as one cross-curricular theme (CCT) merged into the different learning areas taught at schools. This study adopted a two-pronged data collection method approach: 18 semi-structured interviews and a focus group with 9 subjects. The interviewees and the participants of the focus group were teachers, experts who are knowledgeable in the field under study and SMT members. Purposive and snowball sampling was used to identify a balanced mix of participants from state, church and independent primary and secondary schools. The aim of the interviews was to gain first-hand experience on how these three notions are embedded in practice, the skills associated with each notion and the different tools for assessment.

Following the semi-structured interviews, the competences were divided into personal, interpersonal, cognitive and practical areas with each competence having 3 different skills and 5 levels of progression: taxiing, takeoff, airborne, climbing and cruising. The rubrics created were presented and discussed in a focus group which confirmed that the rubrics could be used by teachers who teach different subjects and can be applied at all levels of schooling.

The purpose of the rubrics developed is not to grade learners or pass judgement about their work (Moskal, 2000) but to engage them in an explorative journey, to guide them to reflect, be critical and to improve their skills through a set of criteria with sequential performance quality levels (Brookhart, 2013). As a tool for learning and assessment, the rubrics created will help students step out of the ‘right versus wrong’ interpretation mode and develop skills related to entrepreneurship, creativity and innovation by knowing what is expected of them and what they should do to improve their skills.

The findings reveal that the education system in Malta is struggling to detach itself from a pen-and-paper exam driven legacy with vast syllabi for every subject. Consequently, the use of formative assessment is not significant and the use of rubrics is practically non-existent. The practical relevance of this study is such that the created rubrics might facilitate the implementation of the CCT.

Keywords: Rubrics, Assessment, Entrepreneurship, Creativity, Innovation, NCF
Elizabeth Pulo
Future search as a thinking tool to empower, envision and act: AIESEC as a case study

The purpose of the study is to acknowledge the effects that Future Search, designed by Weisbord and Janoff, has on a participant, in terms of the mind-set, within the context of an organisation. The research question perceives Future Search as a thinking tool that can empower an individual to become more visionary and increase the effectiveness of one’s actions within the context of an organisation. The research also captures the empowerment that a participant might experience towards the organisation.

This dissertation explored possible links between organisational vision, innovation, entrepreneurial organisation, and how they interlink with Future Search while summarising and analysing previous research about it. AIESEC was selected as the case study for this research, given that it executed Future Search in August 2015, while having executed it with a large delegation of over 700 people from 126 countries and territories.

The research was carried out by using a mixed methods approach with triangulation as a base concept for the analysis. Data collection included the distribution of quantitative questionnaires among the delegates of the AIESEC International Congress 2015, followed by a number of qualitative interviews with specific stakeholders in the process.

This research acknowledged there was a development of the participants in that they achieved certain clarity from the outputs of Future Search that guided their strategy designs and actions. Additionally it also provided a platform to learn and open their minds to further opportunities, create connections and redefine their understanding and connection to the organisation.

**Keywords:** Future Search
Thinking- tools
Action-orientation
Vision-orientation
Empowerment
Luke Saliba
The preconditions influencing the adoption of innovative medical technologies amongst Health Care Professionals. The case of point of care testing

The health sector is rich in medical innovations and such abundance is conducive to the betterment of patient care. The adoption of innovations into routine healthcare practices faces a number of barriers, leading to a lagged innovative environment.

This study sets out to investigate the pre-conditions (both inhibitors and facilitators) influencing the translation of innovation into practice, in the context of innovative medical technology in the national healthcare system. The role of healthcare professionals and their personal perception of the innovation’s characteristics and its adoption process are kept central to this study.

This thesis adopts a qualitative research strategy. It implements a case study design to effectively carry out an in-depth analysis of the adoption process experienced in a public hospital environment particularly throughout the use of Point of Care Testing (POCT) technology. The foregoing is the backdrop for the International Normalised Ratio (INR) test utilised by the coagulation clinic. Six semi-structured interviews with healthcare professionals who work in the field are used as a method of data collection.

The results of this research strengthen established literature related to innovation characteristics. The results confirm the literature about the relationship between relative advantage, compatibility and trialability and the inverse relationship of complexity with innovation adoption of medical technology in healthcare. The study finds limited information about the observability trait. Another significant characteristic emerging from this study relates to re-invention. The need to re-invent medical technology was found to slow down adoption as professionals have to become more familiar with the innovation and increases risks. The study also draws out a number of pre-conditions specific to healthcare professionals, highlighting that the individual background and previous work experience, their designation within the organisation and the responsibilities and expectations set on them by the organisation, the concept that the patient is at the centre of health care, emerged to have a strong impact on the innovation adoption of innovative technology in health care organisations.

Keywords: Innovation Management
Healthcare
Professionals
Medical Technology
Adoption
Analise Sammut
‘Going the Distance!’ A study of the relationship between entrepreneurial deliberate practice and firm performance

Entrepreneurship is acknowledged to be a driving force in economic growth. Yet, around half of new ventures in Europe fail within the first five years of starting-up. This leads to growing interest concerning the effect of entrepreneurial experience on success. However, literature argues that experience does not translate into competence, and the concept of deliberate practice has instead been suggested to improve expertise. Deliberate practice is the engagement in prolonged, intense, effortful and highly-focused tasks with the intention to improve one’s performance. Deliberate practice has been associated with improving performance in various domains, such as in sports and music, and this study seeks to add to the limited empirical literature by exploring whether the same can be said in the domain of entrepreneurship.

This study addresses two research questions: To what extent do entrepreneurs engage in deliberate practice to enhance their entrepreneurial expertise? and To what extent is entrepreneurial deliberate practice related to firm performance?

Guided by a critical review of literature, an online survey was conducted with 103 entrepreneurs who answered questions related to their background, engagement in deliberate practice, and reported firm performance. A series of statistical tests were performed on the survey data to investigate the research questions.

The results indicate that deliberate practice activities partially predict firm performance, as the activities of ‘mental simulation’ and ‘monitoring’ were found to have a significant positive effect on non-financial performance, and ‘monitoring’ also had a significant positive effect on overall performance, but no activities had a significant effect on financial performance. Further research is therefore needed to investigate how other factors (such as cognition or the environment) dilute the effects of entrepreneurial deliberate practice.

Keywords: Entrepreneurship  
Experience  
Expertise  
Deliberate Practice  
Firm Performance
Investigating the role of environmental NGOs as change agents in the diffusion of green innovations in Malta

This dissertation examines the effectiveness of environmental non-governmental organizations (ENGOs) in Malta through a business model innovation perspective. It aims to explore the use of the business model framework as a tool towards achieving effectiveness by investigating how the business model framework and innovations within it, could help ENGOs in Malta respond better to challenges and pressures and hence become more effective. To achieve these aims, the researcher presents the following research question and three sub-questions:

How can the business model framework be used to enhance innovation and effectiveness of ENGOs in Malta?

a. What are the challenges and pressures in the external context that ENGOs in Malta are facing?

b. How can the business model canvas be adapted to investigate innovation in environmental NGOs in Malta?

c. How can business model innovation improve the effectiveness of ENGOs in Malta and the impact these organisations have on society?

The research is exploratory in nature and is conducted using a qualitative, inductive approach. Leaders of ten ENGOs in Malta were interviewed using open-ended questions, and the data was analysed through a SWOT and thematic analysis.

The main findings are that business model innovation is indeed linked to ENGO effectiveness, irrespective of size and resources, since innovations were found in every single organization showing that every ENGO in Malta is capable of innovating and doing so in a structured manner would help them become more effective. Business model innovation would help ENGOs be more systematic about innovation and effectiveness.

Keywords: ENGOs
Malta
Effectiveness
Business Models
Business Model Innovation
The aim of this study is to explore how employee interpersonal relations at work affect individual creativity. There has been an increase in demand for creativity throughout the years due to its personal and organisational benefits, implying that comprehending the factors influencing the development of employees’ creative potential is essential. Individuals are social beings, suggesting that their creative potential is impacted through their social ties and more specifically, their employee interpersonal relations. In this regard, the purpose of this study is to explore how employees experience interpersonal relations with their colleagues and how such relations impact their individual creativity.

This research study adopts a qualitative design whereby the main data collection tools were semi-structured, face-to-face interviews based on an interview guide consisting of open-ended questions. The sample, which was recruited through purposive and snowball sampling, included 12 participants composed of 6 males and 6 females, each coming from different organisations. Interpretative Phenomenological Analysis (IPA) was used as the study’s data analysis strategy whereby the audio-recorded interviews were transcribed.

The key findings and implications elicited from this study were the following: the quality of employee interpersonal relations was deemed to exceed quantity and duration in significance, the presence of trust, knowledge sharing, positive moods, humour and debates amongst co-workers, as well as the provision of constructive criticism were found to enhance creative potential and problem-solving abilities; employee interpersonal relations were believed to contribute to stressful situations through negative moods, conflict and competition whereas conformity was predominantly found to inhibit creative initiatives. On a final note, one’s background, personal characteristics and values were found to play a role in the extent by which employee interpersonal relations impact individual creativity as is explored in this study.

Keywords: Individual Creativity
Employee Interpersonal Relations
Organisations
Facilitators/Inhibitors of Creativity
Qualitative Research
Nicola Tanti
The exploration of thinking tools for daily decision making

This dissertation explores the use of Thinking Tools whilst reviewing the availability of Thinking Tools accessible to the general public. Antecedents of Creativity are primarily discussed progressing to theories of creativity, the creative process and decision making. Furthermore, Thinking Tools are further explored in relation to their composition, use and lateral thinking.

A mixed methodological approach was adopted in order to holistically explore the realm of thinking tools A quantitative questionnaire delved into the use of Thinking Tools post tuition at the Edward de Bono Institute for the Design and Development of Thinking whilst desk research enabled the researcher to explore Thinking Tools available to the general public via Amazon, iTunes and Google Play.

The results portrayed a lack of use of Thinking Tools which can be interpreted due to a number of possible of reasons. A common factor included the need for an increase in practice of the use of tools. Desk research and manual analysis concluded a probably ease in the use of thinking tools for application based toolkits as opposed to those found in print format.

Recommendations for this study include; a comparative study in the use of Thinking Tools using a similar sample group; further research into the availability of tools in print versus tools available as mobile applications.

Keywords: Creativity
Thinking Tools
Lateral Thinking
Decision Making
This study’s main focus is to assess the development of financial literacy as a key entrepreneurship skill through an Alternative Learning Programme (ALP) in Money Management. The extant literature indicates that many people of all ages worldwide lack adequate financial literacy skills, and suggests that the financial crisis is a result of poor financial management and decisions (Atkinson & Messy, Carroll, 2012; 2012; Lusardi and Mitchell, 2014; OECD, 2008). For this reason, calls have been made for including financial literacy in the compulsory education curriculum. Furthermore, financial literacy has been recognized as a key entrepreneurship skill. Entrepreneurship is perceived as a very important instrument for job creation and wealth contributor and is therefore an essential driver to economic growth and social development locally and globally. A common reference framework known as EntreComp which is proposed by the European Commission to understand the competences involved in entrepreneurship establishes 15 different competences, one of which is financial literacy (Bacigalupo et al., 2016). This competence is deemed essential to provide individuals with the necessary skills to understand the financial viability of turning their ideas into action and value for others. It is therefore argued that the more financially literate an entrepreneur is, the more successful entrepreneurship becomes as the entrepreneur is more capable to make sound financial decisions for the business.

This dissertation evaluates an Alternative Learning Programme in Money Management which has recently been introduced at a vocational education centre in Malta which caters for Form 5 students (15-16 year-olds) from disadvantaged or troubled backgrounds. This study explores the skills attained by the students, the pedagogy adapted, and the relevance and influence of the programme towards students’ decisions on their future employment and entrepreneurship aspirations. A survey was distributed to students following their participation in the ALP, and focus groups were held with teachers and expert mentors who were involved in organising or facilitating the ALP activities.

Findings of the study indicate that financial literacy is indeed a key entrepreneurship skill. Both students and teachers had a very positive attitude and feedback towards the Alternative Learning Programme in Money Management. A good number of financial literacy and entrepreneurship skills were attained by the students during the project. Evaluation of the project shows that it is recommended that the skills which were lacking throughout the programme should be included in further projects. Last but not least, findings revealed that the ALP in Money Management has been a good instrument to help students think about seeking employment and opening their own business in the future.

Keywords: Financial Literacy
Entrepreneurship
Entrepreneurship Education
Alternative Learning Programme