



## **DOCTORAL THESIS**

### **The role of human resource development as an enabler of creativity**

*Author*  
Kulichyova, Anastasia

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# **The Role of Human Resource Development as an Enabler of Creativity**

**Anastasia Kulichyova, Dipl. HE, MA**

**Ulster University Business School, Ulster University**

Submitted in fulfilment of the requirements for the degree of

**Doctor of Philosophy**

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I confirm that the word count of this thesis is less than 100,000 words excluding the title page, contents, acknowledgements, summary or abstract, abbreviations, footnotes, diagrams, maps, illustrations, tables, appendices, and references or bibliography

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## **GLOSSARY OF TERMS**

CPS	Creative Problem-Solving
CSB	Creative Self-Beliefs
CSE	Creative Self-Efficacy
CPI	Creative Personal Identity
CMC	Creative Metacognition
CWB	Counterproductive Work Behaviour
FAME	Financial Analysis Made Easy
Five A's (5A's)	Actor, Audience, Action, Artifact, Affordances
Four P's (4P's)	Product, Person, Process, Press
HRD	Human Resource Development
HR	Human Resources
HRM	Human Resource Management
ID	Ideational Behaviour
IPIP	The International Personality Item Pool
NIHF	Northern Ireland Hospitality Federation
NEO PI-R	The Revised NEO Personality Inventory
NEO FFI	NEO Five Factor Inventory
RT	Risk-Taking Behaviour
SRC	Self-Rated Creativity
SSM	Soft System Methodology

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## **ABSTRACT**

Creativity has been recognised as an essential ingredient of Human Resource Development (HRD) to help enhance organisational success. However, there appears to be limited empirical evidence to show that HRD activities can actually stimulate the individual creative potential for growth and development and thus contribute to organisational performance and effectiveness.

This research aimed to investigate the role of HRD as an enabler of creative behaviours among employees. The thesis took a multiple and interdisciplinary research approach, utilising concepts from creativity and personality research to explore the impact of HRD interventions on the ability of employees to perform more creatively at work. The research also sought to identify and understand the factors facilitating creativity within HRD interventions as well as the role of the work environment in creative development.

The geographical context for this study was Northern Ireland and more specifically the hotel sector. Focusing on four of the SME hotels in the region, a mixed-method approach was adopted involving HRD interventions, creative self-assessments, participant observations and interviews. In terms of data collection, the researcher simulated HRD interventions in the form of creativity enabling workshops where a sample of managers from each hotel was asked to participate in various activities, utilising tools designed to stimulate creativity. The researcher observed how factors such as teamwork and facilitator support impacted the creative solutions developed by the workshop participants. Additionally, prior to the workshop commencing, a survey instrument was used to capture participants' perceptions of their creativity and creativity in their workplaces. Interviews were also conducted among a sample of workshop participants and General/HR Managers to better understand their perceptions of the workshops as well as creativity more generally.

The findings highlighted that there is a direct connection between HRD and creativity, where the HRD interventions employed in the study appeared to increase awareness of the participants own creativity and produce more creative behaviours. The findings also illustrated that HRD interventions such as those employed in these workshops can facilitate creativity from across different levels of management. Clear evidence emerged that managers individually or as members of a team may be spurred by such interventions resolved to address organisational problems by themselves, as well as when instructed to solve problems at the lower level of management. The study also found that barriers in the work environment may undermine the benefit of HRD interventions for creativity, with such barriers largely related to low organisational commitment to creativity, challenges of communication and trust between employees.

This thesis makes an original contribution to knowledge by narrowing the gaps in the literature on how HRD relates to creativity and the impact of the HRD-creativity nexus on

individual and organisational performance. Several key theoretical and practical implications emerge from the findings facilitating the development of a conceptual framework that can be used as an underpinning for future research.

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# **CHAPTER ONE**

## **Introduction**

## 1.1 Origin of the Research Study

The limited theoretical and empirical research into the HRD-creativity nexus motivated this study and its exploration of the process of creative development at work. In this chapter, the origin, scope, research questions and the structure of this thesis are presented.

There is a growing interest in developing and promoting creativity in modern organisations (Aleksić et al., 2016; Buhl et al., 2016; Chowhan et al., 2017; Mihail and Kloutsiniotis, 2016; Sung et al., 2018; Valgeirsdottir and Onarheim, 2017). For example, employee creativity is often viewed to be a critical intangible organisational resource, which can help organisations to become more successful (Aleksić et al., 2016; Curado, 2018). Particularly amid the recent COVID-19 pandemic, a creative approach is essential for many organisations including the hotel sector, to accelerate the revival of the sector and facilitate individual and organisational performance amid, and in the aftermath of the pandemic (Campbell, 2020; Faragher, 2020). However, upon review of the literature, there appeared to be limited attention devoted to organisational strategies such as Human Resource Development (HRD) and their role for creative development (Garavan et al., 2019; Hon and Lui, 2016; Isaksen, 2020; Martin and Wilson, 2017). When one considers the issue of creative development at work, this apparent scarcity of research on organisational strategies for employee creative development is surprising (Han and Stieha, 2020; Loewenberger, 2016).

Creativity has traditionally been understood as “the production of novel and useful ideas” (Amabile, 2012, p. 3). Recent studies (Karwowski et al., 2019; Royston and Reiter-Palmon, 2017) highlight that creativity can be developed, and this happens due to training and learning opportunities in the work environment (Isaksen, 2020). Here, learning is identified as:

“a process in which people discover a problem, invent a solution to the problem, produce the solution, and evaluate the outcome, leading to the discovery of new problems – resulting in an increase, through experience, of problem-solving ability” (Argyris, 1983, cited in Isaksen, 2020, p. 346).

Learning in creativity may occur when cognitive processes initiate and give rise to creative abilities (Stewart et al., 2007). For example, practice and experience which emerge in the process of learning, encourage behavioural and cognitive processes that are associated with creativity, and they, in turn, increase creative ability. Central to learning is the problem-solving process and the elements of thinking and doing which arise in this process and, in turn, facilitate creative development (Puccio et al., 2006). For example, by engaging managers in problem-solving initiatives, learning helps to initiate thinking styles and creative capacity (Coghlan, 2017; Min et al., 2016). Therefore, by referring to the process of creative development at work as a learning



process, the complexity and importance of cognitive and behavioural processes are appreciated and thus should be reflected in HRD interventions for employee creative development.

There has been scant research into the practices of creative development and existing findings indicate that some characteristics in the work environment such as teamwork, and managerial or supervisory encouragement have the potential to support and encourage creativity at work (Tse et al., 2018; Williams and Foti, 2011; Zare and Flinchbaugh, 2019). However, the majority of research in the field of creative development was explored within laboratory settings such as education and the student population (Luescher et al., 2019; So and Joo, 2017) providing limited practical evidence to the business world. Hence, research on creative development at work is limited, and further investigation on how creativity is facilitated at work has been called for (Glăveanu et al., 2020; Glăveanu and Kaufman, 2019; Corazza, 2019).

In addition to the process of creative development, the challenge of methodological examinations of creativity within the context/industry has been highlighted by key authors (Amabile, 1988; Amabile and Pratt, 2016; Glăveanu, 2013; Lubart, 2017; Woodman et al., 1993). For example, creativity researchers (Amabile and Pratt, 2016; Glăveanu and Kaufman, 2019; Sparrow et al., 2016) highlight that the existing models of creativity are particularly complicated in their approach and, therefore, lack empirical testing within a socio-cultural work environment. As a result, there have been calls to envisage how creative development can methodologically be examined at work and evidence gathered as to whether creative development can lead to higher levels of employee creativity (Glăveanu and Kaufman, 2019; Loewenberger, 2016; McCormack and Titchen, 2014). Hence, the central objective of this study is to ascertain if and how such creative development can occur at work.

Finally, recent studies (Karwowski et al., 2019; Kaufman et al., 2016, Stojcic et al., 2018) highlight that the development of creativity is not straightforward (Furnham, 2018) and is influenced by psychological or behavioural barriers (Hon and Lui, 2016). Therefore, investigations of creativity may require researchers to undertake a more proactive role, for example acting as facilitators in the process of creative development and incorporating research methods/techniques to help managers overcome cognitive, psychological or behavioural barriers to creativity (Choi et al., 2009; Johnson et al., 2010; Loewenberger et al., 2014; Manley et al., 2011; Puccio et al., 2018). Hence, investigations into facilitator styles for the development of creativity represents another scope of research that is lacking in the current stance of the literature (Do et al., 2018; Gevers and Demerouti, 2013; Kong et al., 2019; Meier et al., 2021). Table 1.1 provides a brief timeline of calls for creativity research.

This thesis explores the issue of the creative development of managers at work. In particular, it examines the role of HRD in the development and promotion of creativity among managers within the hotel industry. This study analyses the components of creativity at the

individual and organisational levels and investigates how the process of creative development influences these components and ultimately leads to higher creativity. Creative development is viewed as an HRD intervention in creativity, which is organised and led by the researcher. In this thesis, the researcher acts as a facilitator in the process of creative development.

**Table 1.1 A brief summary of calls for research on creativity and development via HRD**

Call for research	Examples
Research on the direct influence between structured/targeted HRM strategies (such as HRD) and creativity	Binyamin and Carmeli (2017); Coghlan (2017); Loewenberger (2016); Mihail and Kloutsiniotis (2016)
Creative behaviours and how they occur due to organisational influence on individual and team levels of creativity	Stojcic et al. (2018)
The nature of creative enhancement from lower to higher levels of creativity	Karwowski et al., (2019); Kaufman et al., (2016)
Methodological advancements to explore how creativity emerges via HRD/training and development within the organisational context	Corazza (2019); Garavan et al. (2019); Glăveanu and Kaufman (2019); Luescher et al. (2019)
Theoretical development to capture training and development of creativity within a context	Loewenberger et al. (2014); Lubart (2017); McCormack and Titchen (2014)
How creativity can be measured within a context	Amabile and Pratt (2016); Glăveanu and Kaufman (2019); Sparrow et al. (2016)
Empirical testing of the emerging models of creativity	Amabile and Pratt (2016); Glăveanu (2013); Glăveanu and Kaufman (2019); Sparrow et al. (2016)

### 1.1.1 Theoretical Background

This research incorporates multiple theoretical perspectives. In particular, it adopts concepts from the system models of creativity, personality research and HRD pieces of literature to explore the process of creative development, within an organisational perspective. Such theoretical underpinnings allow for a complex and nuanced appreciation of creativity. It also helps to identify the variables/parameters of creativity that may explain the process of creative development. For example, insights from the systems models and personality research allow for considerations of creativity components at the individual and organisational levels and their potential for creative development. The HRD lens is central in this discussion and focuses on how creativity can be increased. In this research, HRD is viewed as the intervention and the strategy helping to enhance creative skills and overcome barriers to creativity, as called for in previous studies (Hon and Lui, 2016; Martin and Wilson, 2017; Hirudayaraj and Matić, 2021).

From the system model, this research focuses on the Componential Theory of Creativity (Amabile, 1988). The main advantage of this theory is that it allows the exploration of creativity at individual and organisational levels in precise categories. In line with this theory, categories of creativity are defined as components, and they relate to individual (personality traits and creative characteristics) and environmental components (motivation). When these components interact

at the levels of the individual and the organisation, they are likely to lead to creative outcomes. However, critics such as Glăveanu (2014) have emphasised that the system models including the Componential Theory of Creativity are over-simplistic. For example, in previous studies creativity was segmented into elements, and those elements were researched in isolation from each other and without a clear reference to the environmental and socio-cultural organisational setting (Coelho et al., 2018; Jaremczuk and Kaliszczak, 2015). In this research, this limitation is omitted by examining creativity within the organisational context.

The personality discourse adds further scope to this study, by nuancing how creativity is enabled and developed within the workplace (Karwowski and Lebuda, 2017; Kaufman et al., 2016). A key insight offered by personality studies is that the individual components of creativity are differentiated by the levels of flexibility such as stable and surface traits. This is a key difference from the Componential Theory of Creativity which views personality traits as innate qualities that are not subject to change (Karwowski, 2014; Puccio et al., 2006). Such differentiation of the individual components is underpinned by the developmental nature of creativity (Kaufman et al., 2016). This means that creativity can be increased from lower to higher levels due to a targeted intervention/action on an individual's stable and surface traits. For example, HRD strategies (an example of targeted action) can initiate cognitive mechanisms and trigger creative behaviours. Therefore, the application of personality research in this work helps to examine and explain how creative development occurs within the workplace (Karwowski, 2014; Karwowski et al., 2019).

The HRD lens is a central component in this discussion. From the organisational perspective, HRD creates a favourable climate for creativity (Lau et al., 2017). This occurs when HRD practitioners design and implement creative interventions for individual, group, and organisational learning (Loewenberger, 2013). Additionally, HRD creates a bridge between individual and organisational levels of creativity. Namely, the favourable work triggers individual motivation in creativity (He et al., 2018; Jiang et al., 2012), increases the number and quality of creative outputs (Loewenberger et al., 2014), and supports the process of creative development. At the individual level, HRD develops an awareness of creativity and a sense of creative personality, which, in turn, supports and encourages managers to engage in creative behaviours over time (Hirudayaraj and Matić, 2021; Joo et al., 2013; Joo et al., 2014). Such conceptualisations of HRD within creativity research is important in this study as they facilitate the exploration of various themes, such as the selection of HRD practices for creative development and the process of creative development at work (Gibb and Waight, 2005; Waples and Friedrich, 2011).

### **1.1.2 The Hotel Context of The Study**

Employee creativity is important in service sector organisations (Loewenberger et al., 2014; Sandvik et al., 2018), particularly in the tourism and hospitality division (Jaiswal and Dhar, 2015; Trong Tuan, 2020; Wu and Chen, 2018). For instance, it is key to ensuring customer satisfaction and service demands (Horng et al., 2016), supplying customers with high-quality services (Mohamed, 2016) and demonstrating the ability to respond to various customer needs (Slåtten and Mehmetoglu, 2015; Slåtten et al., 2011). Despite the growing importance of employee creativity in hotel sector organisations and the fact that the service sector has become the world's largest economy (Trade and Development Board, 2017; Nations, 2020), empirical research has yet to identify how to facilitate employee creativity at work (Hassi, 2019; Jaiswal and Dhar, 2017).

Previous research on creativity in the hotel sector has sought to explore connections of creative behaviours with leadership styles (Wang et al., 2014; Wu and Chen, 2018), and HR practices such as talent management (Bratton, 2018; Golubovskaya et al., 2019), selection and training (Chang et al., 2011). This has been in line with the argument that leadership and HR management can create a favourable work environment and develop individual creative attitudes (Jaiswal and Dhar, 2017). However, the emerging trends in the global hotel industry such as the struggle for survival due to the COVID-19 pandemic, trade tensions amid Brexit and the collapse of the travel operators such as Thomas Cook, has urged organisations to employ more proactive measures and practices for creativity. Consequently, the hotel sector has been forced to reconsider the role of strategic HR and explore the practices which can harness and enhance the creative potential of managers (Dirani et al., 2020; Arora and Suri, 2020; Manucci, 2021). Learning and development in creativity may look promising for the reskilling and creative upskilling of staff in current circumstances (Cummings, 2020; cited in Keogh, 2020), in particular, outcomes of such learning may help organisations identify new approaches to performance, such as the transformation of existing offers with digitally-enabled experiences, development of new approaches to customer service, or identifying new methods of marketing of hospitality destinations.

The hotel sector has always required employee creativity (Hassi, 2019; Horng et al., 2016; Li and Hsu, 2016). Namely, this sector has been associated with highly dynamic working practices such as out-of-hour work and seasonality, coupled with a shortage of relevant staff and skills, and rapidly emerging trends in customer service (Boella and Goss-Turner, 2019). Furthermore, challenges associated with automation and staff replacement (Kansakar et al., 2019), highlight the need for staff to enhance their capacity for innovation and creativity (Baum, 2019). The hotel industry is considered to be far from being innovative (Martin-Rios and Ciobanu, 2019), and employee creativity represents an opportunity for industry innovation. However, developing employee creativity represents a challenging task to fulfil (Lubart, 2018; in Sternberg and

Kaufman, 2018). This study seeks to narrow this gap by focusing on the challenges associated with the development of employee creativity within the context of the hotel sector.

This study is set within the region of Northern Ireland, an area in which the hotel sector has long been identified as one of its main economic drivers (4.9% to NI GDP in 2012: NIHF, 2020). Furthermore, the role of tourism and hospitality in Northern Ireland is prioritised within the Northern Ireland Executive's Draft Programme for Government 2016-2021 (Treasury, 2018). Applicable to this research, the Draft Programme highlights the importance of employee creativity for the industry development; for example, it is viewed as an essential resource to address the problem of commodification and serial reproduction of tourism experiences (Richards, 2015). The studies carried by the Northern Ireland Hospitality Federation (2020) and the Northern Ireland Executive (2016) add to this discussion and highlight that the industry needs to become more creative and promote "the opportunities afforded to people of all backgrounds to fulfil their creative potential" (p. 67).

Although the hotel sector is the key pillar of the tourism industry in Northern Ireland (7% regional hospitality employer), it remains the lowest total UK hospitality employer (2%) (NIAR, 2020). The report by NIHF (2020) adds that the hotel sector in Northern Ireland continues to underperform and staff remain under-skilled relative to other UK regions such as England (Gov.Uk, 2019). As a sequence, the NI hotel sector continues to report an increasing need for staff development and creativity, specifically in times of turbulence such as COVID-19 (Belfast Telegraph, 2020). Hence, developing and fostering skillsets is a key priority within the hotel sector (i.e., NIHF, 2020). This research aims to contribute to this problem by offering solutions to, how engaging managers from the hotel sector in the HRD intervention may enable their creativity and enhance individual and organisational performance.

## **1.2 Scope of the Study and Research Questions**

This research aims to investigate the role of HRD as an enabler of creative behaviours amongst employees. This study seeks to explore whether and how HRD interventions facilitate employee creativity and result in creative behaviours at work. The three fundamental research questions (RQ) addressed within this study are as follows:

RQ1: How does the HRD intervention influence the ability of managers to perform more creatively at work?

RQ2: What factors in the HRD intervention have the most positive impact on employee creativity?

RQ3: What forces in the work environment support the process of creative development?

To examine the three research questions, several research objectives (RO) are postulated:

RO1: To explore the developmental nature of creativity via the HRD intervention, within the hotel sector context.

RO2: To examine the process of creative development at work and its impact on cognitive and behavioural characteristics of creativity.

RO3: To investigate the creativity enabling forces in the HRD intervention which support creative development.

RO4: To explore the impact of the HRD intervention on individual and organisational performance.

RO5: To develop a model which illustrates the variables and processes of creative development via the HRD intervention.

RO6: To build conclusions and directions for future research.

### **1.2.1 Learning and Development Activities**

The focus of this research is the development of employee creativity via HRD. Such development occurs through the learning process in the HRD intervention. The learning process seeks to explore *how the* action (as a function of an HRD intervention) is achieved and leads to creative development in the workplace (Loewenberger, 2016). Consequently, this research explores how an HRD intervention could allow managers to progress from lower to higher creativity.

In this study, HRD interventions took the form of creativity workshops that sought to support creative development by involving managers in the process of creative problem-solving (CPS) (Puccio et al., 2006; Treffinger et al., 2010). Several practical considerations were taken into account when planning the HRD interventions. For example, in line with the literature (Loewenberger, 2013; Pace and Brannick, 2010; Patterson and Zibarras, 2017), the creativity workshop involved teams of 3-4 participants and was underpinned by the CPS process (discussed in Section 3.3.1 in Chapter Three). In this process, managers were asked to solve an organisational problem (provided in advance by management) using their creative thinking. Furthermore, to offer a more holistic view of the process, this research also explored the negative effects of the HRD intervention on creativity. It was acknowledged that participants may be less enthusiastic about creativity and less proactive in their engagement with HRD interventions. It was, therefore, relevant to consider a variety of processes in creative development and understand how they may affect the emergence of creativity in the workplace.

### **1.2.2 Variables for Creative Development**

In this research, a case-study approach was undertaken (Yin, 2017) and the 'individual employee' was chosen as the principal unit of analysis (Glăveanu, 2015; Talja, 1999). In the process of creative development at work, a myriad of elements at individual and organisational levels may

be relevant to creativity. In this research, the literature focusing on creativity and how creative development occurs in the workplace was considered in the first instance, whereby the person was viewed as a learner in creativity (Dayaram and Fung, 2012; Eldor and Harpaz, 2016; Gibb and Waight, 2005; Hansen et al., 2019; Kaufman and Beghetto, 2009; Sung et al., 2018). Considering that creative development occurs within the context of the hotel sector (Klijn and Tomic, 2010; Curado, 2018), the literature dealing with the organisational and learning culture in hotel organisations was further consulted (Isaksen, 2020; Joo et al., 2014; Lau et al., 2017; Sheehan et al., 2013).

Having reviewed the literature, the initial conceptual framework was constructed (see Figure 4.2 in Chapter Four), considering the two broad areas of variables that support creative development at work. The first area of variables relates to the creativity components at the individual level, i.e., stable personality traits, surface traits, and motivation for creativity. The second area of variables refers to the components at the organisational level, i.e., perceptions of the work environment and the HRD intervention in the process of creative development.

### **1.2.3 Limitations in the Study Design**

There is potential for any research problem to be explored in terms of depth and breadth of the knowledge; however, it is inevitably constrained by the labour and potential of only one researcher. It was decided that the mixed method of data collection and analysis would be practical to capture the nature of creativity and creative development. The process of creative development is time and effort consuming and affected by processes in the organisational work environment, which are beyond the control of the researcher. To overcome these limitations, this study incorporates a multiple case study research design and a mixed methods research approach; therefore, the research intends to offer a more comprehensive and rich view of the phenomenon under investigation rather than generalise the findings to the whole population. Hence, this limitation is reduced by the richness and depth of the knowledge (Lalor et al., 2013).

## **1.3 Methodology**

A pragmatic stance with the use of multiple case study and a mixed-method research approach was incorporated in this thesis since the research sought to explore the reality through the eyes of the research participants. Namely, this study explores the experiences and the process of creative development. This is done by examining the cognitive and behavioural processes of managers who are involved in the HRD intervention (Morgan, 2007; Pansiri, 2005). In this case, the researcher is part of the process, for instance, she delivers the HRD intervention, investigates the process of creative development, and interprets the findings. The nexus of HRD and creativity has limited prior empirical evidence (Loewenberger, 2013). Hence, the researcher considered the

benefits and limitations of existing methodologies (Gevers and Demerouti, 2013; Guan and Huan, 2019; Lin and Liu, 2012; Patterson and Zibarras, 2017; Vafeas and Hughes, 2016; Yang et al., 2016), with particular attention given to the existing calls for more rigorous and conclusive study designs to explore creativity within the workplace (Garavan et al., 2019; Isaksen, 2020; Meinel et al., 2018; Othman and Khalil, 2018).

The multiple case study and mixed-method research approach are deemed suitable for this study (Herriott and Firestone, 1983; Yin, 2017). Multiple case studies increase understanding and the robustness of the findings generated, such as how creative development occurs at work, and what creativity-enhancing and creativity-inhibiting forces exist in the work environment and affect creativity. That being said, such an approach has several constraints. For instance, in the case study it may be difficult to control all relevant variables. There may also be issues with low representativeness of the research population (Yin, 2017). This research offsets the limitations by involving the four SME hotels across Northern Ireland. Furthermore, consistency in the research structure and methods of analysis helped to enhance the credibility and reliability of the findings generated.

Given the challenging nature of creative development, the HRD intervention incorporated the idea of action and the CPS framework. The mixed-methods approach to data collection, interpretation and analysis was deemed appropriate for this study. A total of 47 managers were enrolled in the research. The data collection process was performed in several stages. Stage one involved interviews with practitioners (HR/General Managers) from each of the four case organisations. These interviews were critical to securing access to the sample population and the generation of the organisational problem that would form the basis of the HRD intervention and subsequent CPS. In the second stage, the researcher asked the research participants to complete a creative self-assessment tool prior to the HRD intervention. At stage three, the HRD intervention was delivered via a two-hour creativity training session involving the conceptual (theoretical) and practical elements (CPS to the organisational challenge) of creativity development. In stage four, research participants were asked to complete the creative self-assessment tool once again, three weeks since the HRD intervention took place with a total of 23 participants taking part. The fifth and final stage of the research involved interviews with workshop participants and practitioners (HR/General Managers) from each of the case organisations. The research methods and their connection with the research objectives are summarised in Table 1.2.



**Table 1.2 Research objectives and methods of this study**

<b>Research Objective</b>	<b>Research Methods</b>
RO1: To explore the developmental nature of creativity via the HRD intervention, within the hotel sector context.	<ul style="list-style-type: none"> <li>• Self-assessment of creativity in the pre- and post-intervention periods.</li> <li>• Participant observation during the HRD intervention.</li> <li>• Interviews with workshop participants.</li> <li>• Interviews with practitioners.</li> </ul>
RO2: To examine the process of creative development at work and its impact on cognitive and behavioural characteristics of creativity.	<ul style="list-style-type: none"> <li>• Self-assessment of creativity in the pre- and post-intervention periods.</li> <li>• Participant observation during the HRD intervention.</li> <li>• Interviews with workshop participants.</li> </ul>
RO3: To investigate the creativity enabling forces in the HRD intervention which support creative development.	<ul style="list-style-type: none"> <li>• Self-assessment of creativity in the post-intervention period.</li> <li>• Interviews with workshop participants.</li> </ul>
RO4: To explore the impact of the HRD intervention on individual and organisational performance.	<ul style="list-style-type: none"> <li>• Self-assessment of creativity in the post-intervention period.</li> <li>• Interviews with workshop participants.</li> <li>• Interviews with practitioners.</li> </ul>
RO5: To develop a model which illustrates the variables and processes for creative development via the HRD intervention.	<ul style="list-style-type: none"> <li>• Based on RO1-RO4</li> </ul>
RO6: To build conclusions and directions for future research.	<ul style="list-style-type: none"> <li>• Based on RO1-RO5</li> </ul>

The results of participant observations and interviews were coded and themed (Fujii, 2016). A total of seven study participants completed all stages of the HRD interventions therefore were regarded as complete cases. Evidence from the rest of the study population was viewed to be complementary to the findings from the seven cases and was used to ensure the richness of the data. Using thematic analysis as discussed in Chapter Five, data from the participant observations and interviews were aggregated into several areas. These areas encompassed behavioural and cognitive processes associated with the engagement of study participants in the HRD intervention, such as their involvement in the discussion and teamwork, emotions, creativity-related behaviours such as fluency, elaboration and a variety of ideas. The results of the thematic analysis were further informed with quantitative examinations of creativity and were completed by calculating a simple mean difference in scores across the measures of self-assessment. At the final stage of analysis, the cross-case analysis was performed, and the key findings of this research were developed (see Chapters Six and Seven).

## **1.4 Structure of the Thesis**

This thesis consists of eight chapters, as well as nine appendices that support the main text. The first chapter outlines the scope of this study and research objectives, it also briefly outlines the content of each chapter.

Chapters Two to Four review the literature allowing the researcher to explore the nexus of creativity and HRD and develop the theoretical underpinning of this research. Chapter Two examines the issue of creativity at the individual level including its origins and the reasons why this research deserves attention. The definitions of creativity and individual creativity are provided, as well as components of creativity at the individual level. Chapter Three investigates the components of creativity at the organisational level and examines how they are positioned within the scope of HRD research. This chapter also explores the process of creative development at work and how this process can be facilitated via CPS. Chapter Four synthesises Chapter Two and Chapter Three and examines the models of creativity at work. It proposes the initial conceptual model which integrates the individual and organisational levels of creativity. The model positions HRD at the centre of the approach. It is further used for data collection and analysis.

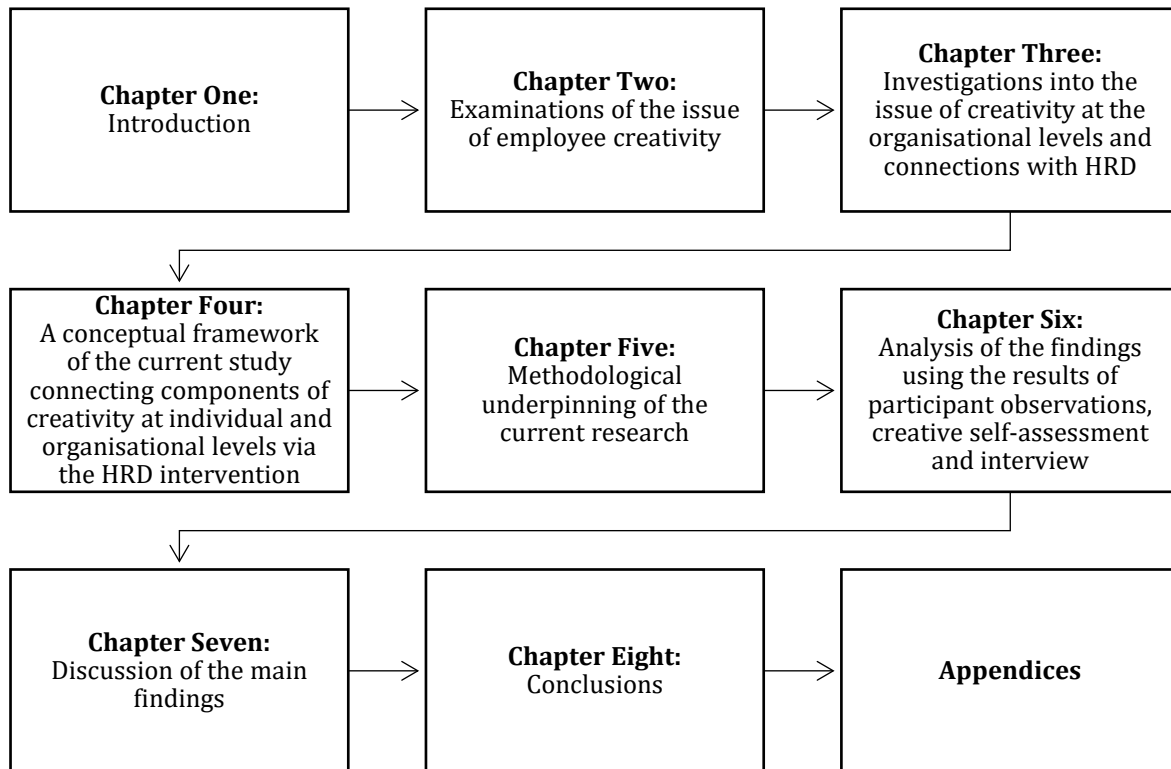
Chapter Five provides a brief background of the four case organisations that took part in the study as well as outlines and justifies the methodology adopted. The chapter further considers the practical elements of the research, i.e., gaining access to the case organisations, selection and appointment of research participants. It also explains the multiple case study research approach and the mixed-method research. The chapter justifies the selection of qualitative and quantitative research methods for data collection and provides the structure of the HRD intervention. The techniques of data analysis are also detailed.

Chapter Six integrates the empirical results of the data from the HRD interventions delivered at the four case organisations (one HRD intervention per organisation). The main focus of the chapter is to investigate the process of creative development within the workplace. The analysis starts with an overview of the profiles of the seven study participants. The findings from participant observations, interviews and creative self-assessment are structured around the research objectives of this research and highlight the potential of the HRD intervention to influence creativity.

Chapter Seven discusses the main results of the study and explores them in relation to the pertinent literature. The chapter extends the initial conceptual framework and discusses the elements that emerged from the results of this study such as teamwork, facilitator support, rewards and the tools for creativity. The main forces in the HRD intervention and the role of the work environment for long-term creative development are also discussed. Finally, the chapter outlines the barriers to creativity training and discusses how they may be surpassed by HRD professionals.

Finally, Chapter Eight outlines the overarching conclusions drawn from this study and explains its contribution to the literature on HRD, creativity and personality research. Practical

recommendations, limitations and suggestions for future research are also provided. An overview of the structure of this thesis is provided in Figure 1.1 below.



**Figure 1.1 An Overview of Thesis**

# **CHAPTER TWO**

## **Creativity and the Individual**

## 2.0 Introduction

As highlighted in Chapter One (Section 1.2), the scope of this research is to investigate the role of HRD as an enabler of more creative behaviours amongst employees. Consistent with this research aim, creativity is viewed as a trainable skill that is essential for creative work behaviours including innovative behaviours and creative problem-solving. Hence, a review of the literature about individual creativity and HRD is discussed throughout Chapter Two and Chapter Three. A key objective of this chapter is to summarise the available research about creativity and creative development at the individual level. Hence, this chapter examines the nature and origins of creativity and the key components which predict the emergence of creativity. Each component of creativity is then discussed in detail and considered in terms of its potential for change and development.

## 2.1 Origins of Creativity

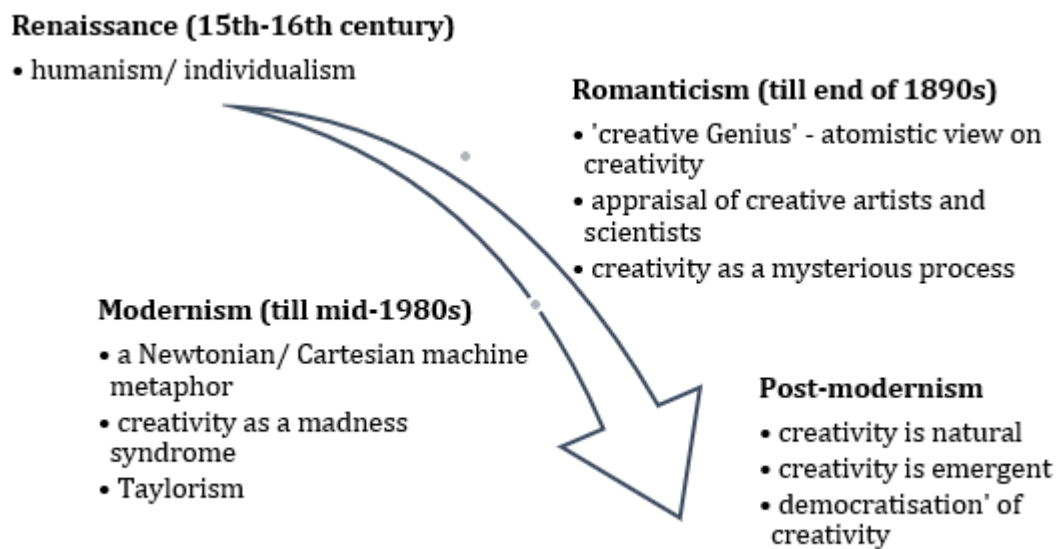
This section presents the life span of creativity. An insight into the origins and evolution of creativity helps better understand its nature (May, 1959; McLean, 2005) and its role in contemporary research studies.

The first notion of the word 'creativity' can be found in a family of Indo-European languages ('*ker*' or '*kere*' meaning 'to grow'), as well as in the Latin language ('*creatio*' or '*creatus*' meaning 'to make grow'), which means 'to bring something new into being' (Weiner, 2000; in Glăveanu, 2013). Up until the middle of the last century, the word 'creativity' has only been used in the artistic context. It was first mentioned in the work of the Polish poet Maciej Kazimierz Sarbiewski titled '*De perfecta poesi, sive Vergilius et Homerus*' published in 1632 when the author said that the poet *de novo create* (creates anew). The first academic use of the word 'creativity' dates back to 1961 when the American educational scientist Mel Rhodes conceptualised the first academic definition of creativity and introduced the 4P's model.

The first applications of creativity can be traced to ancient times approximately 2.4 million years ago, to the moment when our ancestors *Homo habilis* started to investigate the fruits of the Earth and transform different objects to facilitate survival (Gabora and Kaufman, 2010). The first solutions have been readily available, for instance the light as a sequence of the wildfire that served as a source of heat or sharp objects that allowed hunting and cutting. Threats in the environment and a necessity to fulfil the fundamental human needs forced the first humans to cultivate their cognitive abilities and develop more inventive solutions to the problems, namely, how to keep the light or how to make objects more advanced and comfortable to handle. Altshuller (1984) calls this period the method of trials and mistakes. In his work, translated to English as '*Creativity as an Exact Science*', he argues that the application of more inventive

thinking styles and ways to tackle problems has influenced the development of creative human potential and led to the emergence of more sophisticated toolsets for the solution of complex problems.

The subsequent developments and applications of creativity vary across four distinctive historic periods. The life span is summarised in Figure 2.1 and discussed below.



**Figure 2.1 A Lifespan of Creativity**

Source: Adapted from Gabora and Kaufman (2010)

The Renaissance epoch gave rise both to Humanism and the concept of creativity as it is known today. Creativity was attributed to man, and the idea of a '*Creative genius*' (Sydie, 1989) emerged. It flourished over the Renaissance and Romanticism periods and became the focus of philosophy and education. Creativity was perceived as a mysterious process, and a creative genius was often seen as a lone and impetuous individual, primarily involved in the artistic or scientific work and dealing with mystical sources to reach the Eureka moment. At the beginning of Modernism, the Romanticism view on creativity was reinforced resulting in perceptions of creativity as a 'madness syndrome' (Gabora and Kaufman, 2010) that was beyond the rational and linear worldview understanding. The emergence of Taylorism and principles of scientific management (till the mid-1980s) almost eliminated creativity from organisations, and creative artists and scientists were considered outsiders, destructive to hierarchical machine structures (Brödner, 2007). The era of post-Modernism, technological advancements and employee-driven innovations democratised views on creativity, suggesting that creativity is natural and emergent.

A creative human became desirable and demanding by organisations, viewed as a source of an organisation's sustainable competitive advantage and success (Kakko and Inkinen, 2009).

The digitalisation of society and developments in the area of artificial intelligence gave rise to the Post-Information Society. In response to this, the term '*Homo creativus*' emerged referring to creativity as a fundamental facet of a human being (Lubart, 2018; in Sternberg and Kaufman, 2018), a distinctive human ability and skill. Creativity is now viewed as a source of dignity essential for future progress and solving complex problems via transformations of existing knowledge and creating new solutions. It is also viewed as an antecedent of innovation and creative behaviours at work including creative problem-solving and innovative behaviours (Shipton et al., 2017). In addition, the exponential growth of technological advances and computational power has changed the role and position of humans within modern society, where creativity became their unique competitive advantage over computer systems. It is now a "democratic necessity for everyone" (Corazza, 2017, p. 601) which helps ensure the sustainable and healthy collaboration between humans and engines.

The increased role of creativity has become fundamental and an academic discipline (Corazza, 2017, 2019) and urged for an in-depth understanding of the phenomenon in all its manifestations. This inspired creativity research in the last decades and encouraged the emergence of new theories, conceptions, and definitions of creativity. For instance, the fundamental question of *what creativity means* has led to at least four strands of research: creativity as production (Amabile and Pratt, 2016; Corazza, 2016), as process (Neyer et al., 2009; Runco, 2010), as decision (Aleksić et al., 2016; Sternberg, 2006), and discovery (Martin and Wilson, 2017). An overview of the approaches is summarised in Table 1 in Appendix One.

Furnham and Bachtiar (2008) argue there are more than 60 definitions of creativity in the literature, with no agreement upon it. Martin and Wilson (2017) add that the theory does not provide a clear understanding of the concept and many important issues remain unresolved. For example, it is still unclear how to encourage high levels of creativity and support long-term creative behaviours within the workplace. Such uncertain views can be explained by the controversial and unclear nature of creativity itself, which is hard to comprehend because of its mysterious character (Torrance, 1988; cited in Acar et al., 2017). This thesis explores the challenge of creativity at work and how it can be supported by organisational HR strategies. Hence, it incorporates the view that creativity is a trainable skill that is a thread in creative behaviours at work including problem-solving and innovation.

In summary, the life span of creativity has been extensive, dating back to ancient times, going through massive developments and changes over the four historic periods, and playing a huge role in the contemporary Post-Information Society. Due to its unclear and controversial

nature, it is still challenging to understand the fundamental nature of creativity and its multifaceted aspects, thus it leaves blind spots in the current state of research.

## 2.2 Creativity and an Individual

Questions relating to *what creativity means* are extremely important to this work. As highlighted earlier, a wide range of approaches to understanding the concept of creativity can be found in the literature. The definitions shown below represent the most widespread and cited views on creativity and illustrate the extent of their semantic differences.

“The creative work is a novel work that is accepted as tenable and useful or satisfying by a group at some point in time” (Stein 1953, p. 311).

“My answer to the question, ‘What is creativity?’, is this: The word creativity is a noun naming the phenomenon in which a person communicates a new concept (which is the product). Mental activity (or mental process) is implicit in this definition, and of course no one could conceive of a person living or operating in a vacuum, so the term press is also implicit. The definition begs the questions as to how new the concept must be and to whom it must be new” (Rhodes 1961, p. 305).

“Creativity is the production of novel and useful ideas by an individual or small group of individuals working together” (Amabile et al., 1996, p. 1155).

“Creativity is a function of the employee’s personal characteristics, the characteristics of the context in which he or she works, and also the interactions among these characteristics” (Shalley et al, 2004, p. 935).

“The standard definition is bipartite: Creativity requires both originality and effectiveness” (Runco and Jaeger 2012, p. 92).

The above definitions underline the two key characters of creativity, namely ‘novelty’ and ‘usefulness’. This means that products of creativity must bring something new to a specific context and create value (Amabile and Pratt, 2016). A bulk of previous studies is based on this foundation to conceptualise and investigate creativity (Weisberg, 2015; Koppman, 2014; Montag-Smit and Maertz, 2017).

The recent critical psychological views on novelty and usefulness have raised concerns around the adequacy of these attributes to evidence creativity. First, it was highlighted that temporal, contextual and subjective attributes of ‘novelty’ and ‘usefulness’ on creativity have long been beyond the scope of research and understanding (Harrington, 2018). For example, creativity could mean different terms to people and, therefore, it may be difficult to acknowledge the value of creativity within a particular context and at a particular point in time. Second, the reliability of creativity measurements has recently been criticised for being inconclusive, value-free and ‘subject to change’ to classify something as creative (Weisberg 2015). In previous studies (for example Binnewies et al., 2008; Kaufman et al., 2016), creativity was investigated using expert or non-expert ratings; (non-) experts were specially appointed people who were asked to agree



whether the products of creativity were novel and useful (Montag-Smit and Maertz, 2017). However, value judgements of novelty and usefulness are not static; for example, the objects and people being perceived as creative at the present moment risk not being perceived as such at another point in time. George (2007, cited in Amabile and Pratt, 2016, p. 158) adds, “What is useful and creates value for one stakeholder group might harm one or more other stakeholder groups”. Hence, the use of value judgements to explore creativity is not adequate. In turn, they cause logical problems with the understanding of creativity.

Finally, the overall appropriateness of the attributes ‘novelty’ and ‘usefulness’ to evidence creativity has recently been questioned. As noted by Corazza (2016, 2019) creativity means a journey, periods of trials and mistakes, and outcomes are not necessarily recognised as novel and valued by other people. Hence, ‘novelty’ and ‘usefulness’ should rather be viewed as indicators of creative achievement and conditions for qualifying something as creative rather than creativity itself. In addition, relating to creativity in terms of novel and useful outcomes brings additional risks of calling all things creative, because “everything is or has been new at some point” (Hausman, 1979; cited in Glăveanu, 2014, p. 15). Therefore, creativity researchers were accused of being inattentive to such fundamental issues of creativity and reluctant to raise difficult and fundamental questions of creativity such as what it means and how it should be explored.

The above definitions emphasise another important element of creativity – a human who is involved in the person-context relationship. Here, a person is viewed as an actor of creation, who is immersed in a creative process and works individually or as a group member. The role of an individual in the creative process has been championed by a Hungarian-American psychologist Mihaly Csikszentmihalyi who referred to creativity as a complex and interactive process between an individual with a set of his/her intelligence and the context (Csikszentmihalyi and Csikszentmihalyi, 1988). To further expand on this, the term ‘*individual creativity*’ should be introduced.

Guilford (1950) defines individual creativity as a matter of patterns of traits that are inherent to a creative person. Traits in turn should be understood as “consistent patterns in the way individuals behave, feel, and think” (Pervin and Cervone, 2010, p. 228). The degrees of magnitude to which individuals incorporate creativity-related traits relate to the extent of their creative personality (Guilford, 1950). They also represent “a part of the basic human tendency to construct personal interpretations and assimilate information as we experience it” (Runco, 2010, p. 321).

Individual creativity is best understood via the concept of creative potential, which is defined as the quantity and quality of resources utilised by a person to achieve creativity goals (Corazza, 2016). In previous research, the evidence on the creative potential has been collected through extensive longitudinal studies in psychology, education, neuroscience, as well as

manifestations in performance (DeYoung, 2010; Hartley et al., 2016; Lubart, 2017; Sadler-Smith, 2015). The findings confirmed that the creative potential is widely distributed across the range of genotypes and present in all individuals (Runco, 2010). In other words, all humans are found to possess a capacity to engage in a creative process and “give rise to something new” (Vygotsky, 1990, p. 7). Their creative act is based on interpretative and transformative processes involving the work with incoming information and the ability to digest this information in a form of recognisable solutions (Kaufman and Beghetto, 2009). Hence, this finding has relaxed the image of a sole creative genius as such (as discussed in Section 2.1) and allowed inclusion of a wide population in creativity research.

Recent advances in personality research further relaxed the nature of a creative genius by considering the developmental nature of creativity (Karwowski and Lebuda, 2018; Glăveanu and Kaufman, 2020). In their seminal work on creativity magnitudes, Kaufman and Beghetto (2009) argued that creative potential can be trained from lower to higher levels, and this occurs due to the influence of external stimuli such as learning, training and development on the components of creativity (see Table 2.1). In line with the research, there are four major graduations of individual creativity from mini-c to Big-C levels.

**Table 2.1 The Levels of Creativity Magnitudes**

<b>mini-c</b>	<b>little-c</b>	<b>Pro-c</b>	<b>Big-C</b>
<ul style="list-style-type: none"> <li>• emerging from the learning process</li> <li>• can be in form of a personal idea or a thought</li> <li>• personally meaningful</li> <li>• may not be recognised as a creative output by anyone else</li> <li>• can grow to little-c</li> </ul>	<ul style="list-style-type: none"> <li>• fundamental progression from mini-c</li> <li>• everyday creativity</li> <li>• involves some kind of materialisation that can be disseminated in the form of artefacts</li> <li>• other people agree that someone’s efforts are creative</li> <li>• can grow to Pro-C</li> </ul>	<ul style="list-style-type: none"> <li>• expert level of creativity</li> <li>• expertise and accomplishment in a domain</li> <li>• involves wider social recognition, adds to an existing field of creative production</li> </ul>	<ul style="list-style-type: none"> <li>• creative genius</li> <li>• comes with time</li> <li>• continued appreciation over generations</li> </ul>

Source: Adapted from Kaufman and Beghetto (2009)

The mini-c refers to the personal level of creativity. For example, it can be in the form of a personal idea or a thought, it may be personally important and meaningful and may not be recognised as creative by anyone else. The little-c resembles everyday creativity and involves some type of idea materialisation. It requires the learning process, such as a process that can increase employee creativity from lower to higher levels. Little-c can be agreed and confirmed as creative by other people. The Pro-C level is associated with an expert, or professional level of creativity. It results from continual learning at the little-c level and involves expertise in creativity or accomplishment in a domain. The Big-C level is found in creative geniuses, their ground-breaking achievements

are continually appreciated over generations (Kaufman et al., 2016). Appreciation of different levels of creativity magnitudes is important in this thesis as it recognises that a) creativity occurs in everyday work practices, b) creativity as a skill can be trained and developed but requires stimuli such as learning opportunities at work, c) outcomes of creativity can be applied and utilised by organisations, therefore, can serve as an antecedent of innovation and problem-solving, rather than child-like imagination.

The process of creative development requires external conditions, such as training and learning opportunities. The link was examined in the previous studies (Hass et al., 2016; Karwowski et al., 2019; Royston and Reiter-Palmon, 2017) which highlighted that there was an impact of training on the development of creative mindsets. In particular, those studies found that individuals who were interested in creativity and wanted to progress from mini-c to higher levels, were more likely to reflect creative behaviours than those who were less interested and thought that creativity was a stable trait. Hence, the study evidenced that creativity can be developed however it requires a range of components such as interest in creativity (motivation) and creative potential. Section 2.4 discusses the components of creativity and the factors that support creative development.

In summary, the standard definitions emphasise the key ingredient of creativity – a human who is individually or as a group member involved in a creative act. The previous studies confirmed that all humans are born with a capacity to be creative, namely, they have their core ability to apply complex cognitive structures and come up with creative ideas. This consideration allowed the creativity research to be more inclusive to individuals and view them as creators. However, the extent of creative potential can vary from mini-c to Big-C levels. Segmenting creativity in parts allows for a deeper analysis of components of creativity and their role within an individual.

### **2.3 Individual Levels of Creativity and Creative Behaviour**

Previous research suggests that at least one of the conditions for creative behaviour needs to be satisfied. First, creative thinking must be untraditional and result from rejections or recombination of previous solutions (Newell et al., 1962; cited in Dawson and Andriopoulos, 2014). It requires a high level of motivation and persistence, whereby individuals are encouraged to put extra effort and time into a creative process (Amabile, 2017; Ritchie, 2009). Products of creativity should also be relevant and based on characteristics of reality. In this process, individuals are involved in the process of problem-solving and explore a variety of opinions and perspectives (Dawson and Andriopoulos, 2014). Finally, individuals need to be able to identify a problem and articulate a solution to this problem. In this process, they should be able to apply a

variety of thinking processes such as divergent and convergent thinking and be able to see the situation they are trying to solve (Montag-Smit and Maertz, 2017; Ohly et al., 2017).

A wide array of cognitive processes can relate to creativity (see Table 2.2). They are the foundation of the creative process, for example, the characteristics such as creative thinking, independence of judgement, tolerance for ambiguity, or risk-taking behaviours.

**Table 2.2 An Overview of Cognitive Creative Processes**

<b>Construct</b>	<b>Definition</b>	<b>Reference</b>
Creative Thinking	An intersection of divergent thinking (an ability to generate many ideas) and convergent thinking (an ability to select ideas)	Torrance Tests of Creative Thinking: Torrance (1974); the Alternate Uses Task: Mednick (1968); the Creative Visualisation Task: Finke (1992)
Independence of Judgement	The ability to believe for oneself	The Independence of Judgement Scale: Barron (1953)
Tolerance for Ambiguity	“The capacity to remain open to input that is mystifying and perhaps contradicts one’s beliefs” (Montuori et al., 2004, p. 209)	Measurement of Ambiguity Tolerance: Norton (1975), Zenasni et al. (2008)
Risk-Taking	“the inclination to act under unstructured conditions and to defend one’s own ideas” (Sica et al., 2017, p. 4)	Domain-Specific Risk-Taking Scale: Blais and Weber (2006), Tyagi et al. (2017)

Source: compiled by the author

Of the cognitive processes, divergent thinking (as a facet of creative thinking) has been the strongest predictor of creativity (Hornberg and Reiter-Palmon, 2017). In several studies, it was used as a key characteristic for evaluation of individual creative ability and potential (Abraham et al., 2019; Furnham and Bachtiar, 2008; Fürst and Grin, 2018; Pretz and McCollum, 2014). Typical divergent thinking tests and tasks are scored across the four aspects: Originality, Fluency, Elaboration and Flexibility. They are used to evaluate an individual’s ability to come up with many, varied and statistically rare ideas. In previous research, such aspects of divergent thinking were statistically associated with creativity-relevant parameters such as creative behaviour (Glăveanu et al., 2018; Nusbaum et al., 2014), creative personality (Hornberg and Reiter-Palmon, 2017), self-rated creativity (Haase et al., 2018; Pretz and McCollum, 2014). Thus, strong and reliable relationships of divergent thinking with the creativity-relevant processes were established (Zenasni et al., 2008; Tyagi et al., 2017).

To understand how these cognitive processes occur within an individual and result in creative behaviours, acknowledgements of the key facets of creativity are essential. This is consistent with the system models of creativity, which seek to examine the components (systems) in which creativity emerges (Henriksen et al., 2016; Kaufman and Beghetto, 2009). The components relate to certain dimensions of creativity and how they engage with other components in the creative process (see Table 2.3). The two kinds of components are usually recognised, and they refer to individual and environmental components. Individual components

are the strongest predictors of individual creativity (Sternberg, 2017; Wechsler et al., 2018). They include certain personality traits, such as creative abilities and skills, intellectual curiosity. The environmental components (i.e., social-cultural influences, cultural and contextual forces) add essential context to creativity since “the act of a man creating is the act of a whole man” (Bruner, 1963, p. 18). When these components coalesce at the levels of individual and organisation, they are likely to lead to higher levels of creativity (Luescher et al., 2019).

**Table 2.3 An Overview of the Key Theories of Creativity**

Theory	Key molecules of individual creativity
The investment theory of creativity  (Sternberg and Lubart, 1996)	<ul style="list-style-type: none"> <li>• Intellectual abilities (synthetic, analytical, practical-contextual skills).</li> <li>• Knowledge (non-entrenched and flexible ways of use).</li> <li>• (Legislative) Styles of thinking (preference for generating novel ideas).</li> <li>• Personality (perseverance, risk-taking, tolerating ambiguity, individuality, openness to new experiences).</li> <li>• Motivation (intrinsic).</li> <li>• Environment (supportive of creativity).</li> <li>• A confluence of the various elements.</li> </ul>
The theory of organisational creativity  (Woodman et al., 1993)	<ul style="list-style-type: none"> <li>• Antecedent conditions (biographical and historical information).</li> <li>• Personality factors (stable personality traits).</li> <li>• Cognitive factors (cognitive abilities and styles).</li> <li>• Intrinsic motivation.</li> <li>• Knowledge (a level of expertise).</li> </ul>
The (Dynamic) Componential Model of Creativity  (Amabile et al., 1996)	<ul style="list-style-type: none"> <li>• Domain-relevant knowledge (factual knowledge, special talents, technical skills).</li> <li>• Creativity-relevant skills (cognitive-perceptual styles, personality traits and characteristics, an application of heuristics for exploring new cognitive pathways).</li> <li>• Motivation (intrinsic and extrinsic).</li> </ul>

Source: compiled by the author

In examining the components of creativity, this thesis incorporates the logic of the Componential Model of Creativity (Amabile et al., 1996). In previous studies, this model has been among the well-established conceptual frameworks for exploring creativity (Amabile, 2012; Do et al., 2018; Rennick and McKay, 2018). Another advantage of this model is that it explores creativity in precise components at individual and organisational levels (for further discussion refer to Section 4.1 in Chapter Four). Hence, this model can benefit the research study with greater clarity about the creative process and how it is initiated within the workplace. In line with the model, there are three major components of creativity:

1. ‘Basic materials, or raw resources’ – these are individual capacities (i.e., technical skills, factual knowledge, intelligence, special talents) to explore and exploit ideas from multiple

perspectives (Li et al., 2019). In previous studies, domain-relevant knowledge was a moderator of personality traits for idea generation (Chiang et al., 2017).

2. 'A variety of skills and knowledge to integrate the basic materials in new ways' relates to creativity-relevant processes, cognitive styles and characteristics (Amabile, 1988, 2012; Amabile and Pratt, 2016). The scant research provides extensive evidence on the role of creativity-relevant skills and behaviours for creativity (i.e., creative self-efficacy, personality traits, thinking styles). These studies suggest that certain traits and characteristics (such as creative self-efficacy) are key to facilitating creative task engagement despite constraints (Agnoli et al., 2018; Coelho et al., 2018; Kong et al., 2019; Royston and Reiter-Palmon, 2017; Zare and Flinchbaugh, 2019).

3. A 'driver' is a motivation for creativity (Amabile and Pratt, 2016). There are two types of motivation, namely intrinsic and extrinsic motivation. Intrinsic motivation is defined as the extent to which individuals keep engaged in a task for the sake of the task itself. Intrinsic motivation has long been believed to be the strongest predictor of individual creativity. Namely, it can support psychological (i.e., job autonomy, self-control) and cognitive orientations (i.e., meaningful work, affective states) for creativity (Amabile and Pratt, 2016; Loewenberger et al., 2014; Shin et al., 2018; Zhang and Bartol, 2010). Extrinsic motivation is external to an individual and predicted by individual perceptions of social or environmental factors for task engagement (Amabile, 1988, 2012). Studies examining extrinsic motivation and creativity have been inconclusive about the link with creative behaviour (Amabile, 1997; Castañer, 2016; Veenendaal and Bondarouk, 2015). However, both kinds of motivation are complementary and essential for creativity to occur (Amabile and Pratt, 2016; Hennessey and Amabile, 2010).

Recent advances in personality research reconsidered the nature of individual components (Kaufman et al., 2016), in particular, they indicated that such components should be distinguished by the levels of plasticity (flexibility) (Karwowski, 2014; Puccio et al., 2006). Plasticity could be understood as a tendency of these components to undertake a modification and change (Darling-Hammond et al., 2020). Such differentiation highlights the developmental nature of creativity, and it occurs when external stimuli (learning, training and development) are in place and utilised to affect the creativity components at both individual and organisational levels (Karwowski, 2014; Karwowski et al., 2019). Such consideration of individual components is relevant to this research, particularly the research question RQ1 which seeks to explore how the HRD intervention influences the ability of managers to perform more creatively at work.

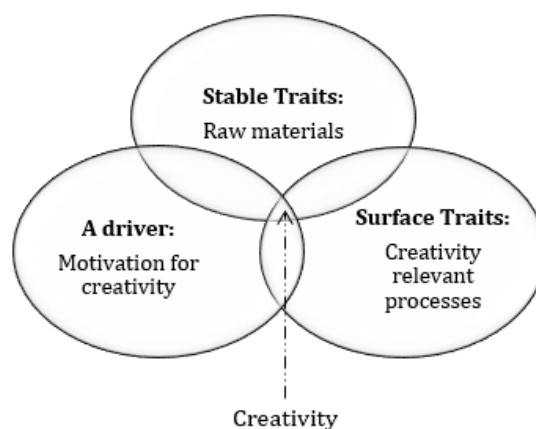
In line with personality research, individual components are classified as stable and surface traits (Puccio et al., 2006), as discussed below.

1. Stable traits relate to Amabile's notions of 'basic materials/raw resources' and imply that they are a foundation for creative work which "depend on innate cognitive ... abilities" (Amabile, 1988, p. 131). Stable factors are relatively static and manifest within individuals despite

influences of the external environment (DeYoung, 2010; Karwowski et al., 2013). This means that they are difficult to influence, relatively enduring (McCrae and Costa, 1996) and based on genetic differences (Karwowski, 2012). Such consideration of personality factors is crucial to advance the developmental nature of creativity. Particularly, measurement of stable traits advises what characteristics of creative talent exist independently within individuals (DeYoung, 2010), such as the degree of openness to new ideas and natural predispositions for being creative at work.

2. Surface traits are defined as consequences of stable traits. Such traits are less stable and prone to change and environmental influences (Karwowski and Lebudu, 2017). They are also key to bringing about the developmental nature of creativity, such as shifts in creative behaviour and creative self-efficacy (Haase et al., 2018). For example, external stimuli such as learning, training and development promote expansions of creative mindsets from lower to higher levels (Karwowski et al., 2019). This happens when employees are engaged in action (i.e., collective problem-solving to an organisation-specific challenge) and being guided across the stages of the action which initiates creativity-related cognitive processes (i.e., divergent thinking, convergent thinking).

The conceptualisation of personal factors in terms of the stable and surface traits is essential to this research which aims to examine the potential of HRD to enable employee creativity. Particularly, stable traits are viewed as the core for creativity, and they exist independently within an individual. Considering the surface traits are less static traits, they are key to enlarging the stable traits and bringing about a change in creativity via the HRD intervention (Asendorpf and Van Aken, 2003; Hass et al., 2016; Karwowski and Lebudu, 2016). Figure 2.2 displays the major components of creativity at the individual level which are explored within this research. The following Sections 2.5 and 2.6 explore the components of creativity in detail.



**Figure 2.2 The Interplay of Creative Components in this Research**

Source: compiled by the author

In summary, a range of cognitive processes can relate to creativity, such as creative thinking (divergent and convergent thinking, risk-taking behaviours). To understand how these processes occur within an individual, the system models define the key components of creativity at the individual level such as individual and environmental components. This thesis incorporates the advances in personality research to explore the individual components and how they give rise to creativity. This is done to understand how creative development occurs through the HRD intervention and how it leads to creative behaviours.

## 2.4 Understanding Basic Materials of Creativity

Individual components of creativity include stable (i.e., basic materials) and surface traits. The link of creative behaviour with basic materials has been examined, such as intelligence (Da Costa et al., 2015; Jauk et al., 2014), domain-relevant expertise (Li et al., 2018), and a combination of different traits (Chiang et al. 2017). Table 2.4 reflects the results of research that connects stable traits with creativity.

**Table 2.4 Connections of Stable Traits with Creativity**

Basic materials	Associations with individual creativity
<i>positive</i>	
Intelligence (Intellect)	<ul style="list-style-type: none"> <li>• “a Matthew effect”: the greater intelligence results in greater creativity (Da Costa et al., 2015; Nusbaum et al., 2014).</li> <li>• Predicts creative achievement (Glăveanu and Kaufman, 2019; Jauk et al., 2014).</li> </ul>
Expertise/ Knowledge	<ul style="list-style-type: none"> <li>• Predicts idea generation and implementation (Li et al., 2018).</li> <li>• Predicts problem-solving skills (Weisberg 1999).</li> </ul>
A combination of resources	<ul style="list-style-type: none"> <li>• A strong predictor of creativity (Amabile et al., 1996; Chiang et al., 2017; Jeong et al., 2017; Li et al., 2018).</li> <li>• Encourages creative thinking processes through increased efficiency to deal with information (Kim and Zhong, 2017).</li> </ul>
Stable personality traits	<ul style="list-style-type: none"> <li>• Facilitate engagement in creative processes (Puccio and Grivas, 2009; Zare and Flinchbaugh, 2019).</li> <li>• Encourage divergent thinking (Chamorro-Premuzic and Reichenbacher 2008).</li> <li>• Are strong antecedents of creativity (Coelho et al., 2018).</li> </ul>
<i>negative</i>	
Intelligence (intellectual)	<ul style="list-style-type: none"> <li>• Lacks a significant relationship with creativity (Batey et al., 2010; Furnham and Bachtiar, 2008; Karwowski et al., 2018).</li> </ul>
Expertise/ Knowledge	<ul style="list-style-type: none"> <li>• Diminishes fluency of idea generation through functional fixedness (Chi 2006; Montag-Smit and Maertz 2017).</li> </ul>
A combination of resources	<ul style="list-style-type: none"> <li>• Develops cognitive loads (Montag-Smit and Maertz 2017).</li> <li>• Leads to counter-productive behaviour (Roccas and Sagiv 2010).</li> </ul>
Stable personality traits	<ul style="list-style-type: none"> <li>• Inconsistent relationships of certain personality traits with individual creativity (Karwowski et al., 2013; Kienitz et al., 2014).</li> </ul>

Source: compiled by the author



The findings demonstrate that there has been inconsistent research on the relationship of stable traits with creative behaviours. For instance, research by Karwowski et al. (2013) found that only several traits relate to creativity (i.e., Openness to Experience, Extraversion and Conscientiousness) whilst the other traits were less associated with creativity (i.e., Agreeableness and Neuroticism) or influenced by other factors such as gender. This research seeks to investigate the potential of HRD to enable creativity through stable traits, hence the literature on stable personality traits and creativity is only discussed in this section.

Within the stable traits of creativity, five main traits are distinguished (Openness to Experience, Extraversion, Conscientiousness, Agreeableness, and Neuroticism). They are examined using the Revised NEO Personality Inventory (the NEO PI-R), broadly known as the Big Five-Factor Inventory. In previous studies, the NEO PI-R accounted for the most variance in creativity (Batey et al., 2010; Sanz De Acedo Lizarraga et al., 2014) and therefore has been the most reliable measure to examine creativity. Along with its modifications (i.e., the NEO Five-Factor Inventory (The NEO FFI) and the International Personality Item Pool (IPIP), it was used to explore the connection of personality with individual creativity (Furnham and Bachtiar, 2008; Lizarraga et al., 2014; Ahmetoglu et al., 2016; Karwowski and Lebuda, 2016; Montag-Smit and Maertz, 2017; LeBoutillier and Barry, 2018). Table 2.5 illustrates the major facets of stable traits that are examined by the NEO PI-R.

**Table 2.5 The Big Five Personality Traits and Facets**

Level	Factor				
Big 5 Trait	Openness to Experience	Conscientiousness	Extraversion	Agreeableness	Neuroticism
Aspect	Intellect	Industriousness	Assertiveness	Compassion	Volatility
	Openness	Orderliness	Enthusiasm	Politeness	Withdrawal
Facet	Fantasy	Competence	Warmth	Trust	Anxiety
	Aesthetics	Order	Gregariousness	Straightforwardness	Angry Hostility
	Feelings	Dutifulness	Assertiveness Activity	Altruism	Depression
	Actions	Achievement Striving	Excitement Seeking	Compliance	Self-Consciousness
	Ideas	Self-Discipline	Positive Emotions	Modesty	Impulsiveness
	Values	Deliberation		Tendermindedness	Vulnerability

Source: adapted from Hughes and Batey (2017)

Of the Big Five, the traits Openness to Experience and Extraversion have been the strongest and statistically significant predictors of creativity (Coelho et al., 2018; Karwowski et al., 2013; Silvia et al., 2008). For example, in the quantitative study by Chamorro-Premuzic and Reichenbacher

(2008), the authors found that the trait Openness to Experience was predicting divergent thinking amongst the student population whilst the trait Neuroticism was negatively associated with divergent thinking. Furthermore, the trait of Extraversion was a mediator in the relationship of Neuroticism with creativity. Connections of the other personality traits with creativity (i.e., Conscientiousness, Agreeableness, Neuroticism) have not been confirmed with confidence. The sample size of the Chamorro-Premuzic and Reichenbacher's (2008) study was small (n=82) therefore reliability of the findings was questioned. This research addresses this issue with a more comprehensive research design involving the multiple case study and mixed methods research approach (see Chapter Five for discussion), specifically it will explore whether and how the HRD intervention can influence personality traits of creativity. Table 2.6 integrates connections of the stable traits with creativity. The following sections discuss the findings of previous research on the relationship of creativity with the Big Five.

**Table 2.6 Connections of the Personality Traits with Creativity**

Big Five		Creativity
Trait	Meta-Trait	
Openness to Experience	Intellect	Creative development (through proactivity, divergent thinking, curiosity, and cognitive flexibility). Creative Self-Efficacy, Creative personal identity, creative achievement (through meta-trait Intellect)
	Openness	
Conscientiousness	Industriousness	Creative task engagement and self-discipline (through meta-trait Industriousness) Creative achievements (through negative meta-trait Orderliness)
	Orderliness	
Extraversion	Assertiveness	Creative development (through creative achievement and self-rated creativity) Enthusiasm for creativity (through meta-trait Assertiveness) Cognitive flexibility (through meta-trait Enthusiasm)
	Enthusiasm	
Agreeableness	Compassion	The negative relationship between Agreeableness and creativity
	Politeness	
Neuroticism	Volatility	The negative relationship between Neuroticism and creativity
	Withdrawal	

Source: compiled by the author

#### **2.4.1 Openness to Experience and Individual Creativity**

The trait Openness to Experience is defined as “an interest in experience for its own sake” (McCrae, 1987; cited in King et al., 1996, p. 96), it refers to conceptions of intellectual curiosity, originality, imagination, liberal attitudes, artistic interests for creativity (McCrae, 1987). The levels of openness are key to predicting the extent to which individuals involve in explorations of thoughts and ideas, challenge existing concepts and worldviews, participate in imaginative and flexible forms of thinking (Coelho et al., 2018).

The trait Openness to Experience is composed of the two lower-level meta-traits, i.e., Intellect and Openness. The meta-trait Intellect is associated with intelligence and the extent to which individuals process intellectual or abstract information for novel ideas. The meta-trait Openness refers to individual sensitivity about artistic or sensory information (DeYoung, 2010). The meta-traits Intellect and Openness predict higher levels of creativity through intellectual curiosity and engagement in artistic experiences for idea inspiration. Such insights were confirmed in studies of Nusbaum et al. (2014) and DeYoung (2010) who found that application of both meta-traits increases the quantity and quality of ideas. Hence, there is a link of the trait Openness to Experience with creativity.

In previous studies, a direct relationship of the trait Openness to Experience with creative development was evident. Namely, the trait Openness to Experience supports the process of creative development, i.e., mini-c to little-c levels (Batey and Furnham, 2006). This occurs through stronger proactivity, divergent thinking, curiosity, and cognitive flexibility (Binyamin and Carmeli, 2017; Coelho et al., 2018). There is also a statistically strong correlation of the trait Openness to Experience with creativity-relevant skills and characteristics such as creative self-efficacy, creative personal identity (Karwowski et al., 2013), and creative achievement (Jauk et al., 2014). Such strong links of the trait Openness to Experience with creativity are attributed to the meta-trait of Intellect which supports individual inclinations for goal-oriented performance and task success. Through the greater access to knowledge and expertise, the trait Openness to Experience increases motivation to utilise the knowledge and engage in untraditional and original types of thinking. This, in turn, leads to higher levels of creativity (Batey and Furnham, 2006).

#### **2.4.2 Extraversion and Individual Creativity**

The trait Extraversion examines a tendency for activity and assertiveness, as well as experience of positive affective states such as enthusiasm (Chamorro-Premuzic and Reichenbacher, 2008). Extraversion is manifest in sociability, energy, and proactivity (Costa et al., 1992). Such characters are essential for the developmental nature of creativity, i.e., increases from mini-c to little-c (Batey and Furnham, 2006). For example, extraverts are likely to engage in creative activities despite constraints in the work environment because they perceive such creative activities as an opportunity to take risks and achieve higher goals (Lizarraga et al., 2014).

The nature of creativity through the trait Extraversion was examined in neuroscience research. The evidence posits that creative behaviours are supported by the hormone *dopamine* which enables the 'wanting' (i.e., perceived rewards, recognition for being creative) and 'liking' mechanisms (i.e., intrinsic motivation to experience positive emotions in the process of task engagement) (DeYoung, 2010). For example, individuals engage in a creative activity because they expect to receive rewards for being creative at work, such as increased status quo or

recognition at work. A combination of the 'wanting' and 'liking' mechanisms predicts stronger creativity of extraverts who engage in the creative task for either kind of motivation.

In addition to dopamine, connections of creativity with the trait Extraversion exist through the meta-traits Assertiveness and Sociability (DeYoung 2010). For example, assertiveness is likely to influence enthusiasm for creativity and lead to higher creativity. Moreover, research by Fürst and Lubart (2017) adds that creative achievement of extraverts is associated with increased cognitive flexibility and positive affective states at work (sociability) which result from task engagement. Hence, connections of the trait Extraversion with creativity are found in kinds of motivation and emotional affective states (i.e., enthusiasm for creativity). These processes may emerge in the process of creative development via the HRD intervention and explain the developmental nature of creativity. For example, this may occur when individuals explore creative ideas as members of a team (sociability) and discuss ideas from different perspectives (assertiveness).

#### **2.4.3 Agreeableness and Individual Creativity**

The trait of Agreeableness relates to the ability to deal with negative emotions and impulses (DeYoung, 2010). It is reflected through empathy, altruism, cooperativeness, conformism, and caring (Costa et al., 1992). In previous personality research, the trait Agreeableness was negatively associated with creativity, and such effects were due to the inability of agreeable personalities to raise voice and reflect disagreement in the creative process (King et al., 1996; Cohen and Deuling, 2014; Karwowski and Lebuda, 2016).

Insights from broader creativity research also suggest that there is a negative relationship of the trait Agreeableness with creativity. It was found that less agreeable people were more likely to possess characteristics of creative personalities than agreeable employees. For instance, they were likely to reflect behaviours that are associated with creativity, such as independence from judgement, antisocial and provocative behaviours (Batey et al., 2010; Feist et al., 2017; Hughes et al., 2013). Finally, it was found that less agreeable people (i.e., scientists, artists) were likely to have more creative achievements than agreeable people (Batey and Furnham, 2006; Feist et al., 2017; King et al., 1996). Drawing on this past research, negative connections of the trait Agreeableness with creativity may be expected in this research. Less agreeable managers may also be likely to benefit from the HRD intervention and reflect creativity within the workplace.

#### **2.4.4 Conscientiousness and Individual Creativity**

The trait Conscientiousness measures the extent of persistence, organisation, and orientation for goal-oriented tasks (Karwowski et al., 2013). It predicts occupational success through self-discipline, achievement striving and deliberate planning (Ozer and Benet-Martínez, 2006). The

trait Conscientiousness manifests in the two meta-traits, such as Achievement and Dependability. In line with the personality research, the meta-trait Achievement represents a proactive aspect of the trait in terms of “a need for achievement and commitment to work”, whereas the meta-trait Dependability inhibits flexibility of thinking processes through “moral scrupulousness and cautiousness” (Graham, 2009, p. 887). Through these two meta-traits, the trait Conscientiousness connects with creativity. The positive (high) meta-trait Achievement helps to support creative task engagement and self-discipline whilst the negative (low) meta-trait Dependability facilitates independence of thinking processes for creative achievements and recognition (Fürst and Lubart, 2017). Hence, high Achievement and low Dependability are essential for a positive connection of the trait Conscientiousnesses with creativity.

In addition to the direct connection of the trait Conscientiousness with creativity, more complex relations exist. For example, research by Zhou and George (2001) found that highly conscientious employees were likely to score low on creativity because they preferred established and routine patterns of problem-solving and tended to avoid untraditional forms of work. Furthermore, conscientious people can hold high standards for (creative) performance which they may not be capable to achieve. Hence, highly conscientious employees are likely to distance themselves from creative behaviours. Such considerations are important in this research, i.e., highly conscientious managers may not want to participate in the HRD intervention and practice untraditional forms of problem-solving. For them, additional support may be important to encourage their creativity, such as facilitator support or teamwork for CPS.

#### **2.4.5 Neuroticism and Individual Creativity**

The trait Neuroticism measures an individual's tendency for negative emotions and cognitions, such as anger (Gibson and Cook, 1996), social avoidance (Elliot and Church, 1997), and distrust in own abilities to accomplish creative goals (Xu and Brucks, 2011). Previous studies reported negative connections of the trait Neuroticism with creativity, particularly people scoring high on Neuroticism were prone to anxiety because they feared failing the task (Gulzar et al., 2014). The findings from neuroscience research highlighted that such connections can be due to various hormones and neurotransmitters which explain individual sensitivity to stressors and influence an individual ability to mobilise resources. They can also result in negative attitudes to stressors, i.e., fears of threat or punishment, passive avoidance, depression (DeYoung, 2010). Hence, individuals who experience anxiety about new (creative) tasks are likely to reflect less creativity.

Within creativity research, there has been a general agreement that the trait Neuroticism is negatively associated with creativity, such as creative self-efficacy and creative personal identity (Karwowski et al., 2013; Chamorro-Premuzic and Reichenbacher, 2008; Anwar, 2017). Such negative connections are associated with the low emotional stability of individuals (i.e., low

scores across the trait Neuroticism) to tackle negative emotions and stressors associated with creative tasks (Coelho et al., 2018; Furnham and Bachtiar, 2008; Karwowski, 2012). Several studies however reported that there may be a positive connection of the trait Neuroticism with creativity, i.e., emotional instability may increase affective state (Anwar, 2017, Strong et al., 2007) and support persistence in the creative task (De Dreu et al., 2008). However, such a connection cannot be confirmed with confidence. Hence, the implications of managers who score high on perceived Neuroticism may be direct for this research, i.e., if managers would perceive creativity as a fearful exercise and escape from engagement, the impact of the HRD intervention on their creativity may be low.

In summary, this section explored personality traits (as facets of the stable traits of creativity) and their connections with individual creativity. The existing literature demonstrated that several traits, such as Openness to Experience and Extraversion have been the strongest and statistically reliable predictors of creativity. In relation to the other personality traits (i.e., Agreeableness, Conscientiousness, Neuroticism), links with creativity remain complex and unclear. In the following section, creativity-relevant processes including surface traits of creativity are discussed.

## **2.5 Creativity-Relevant Processes and Individual Creativity**

Many authors who have considered creativity-relevant processes have referred to a variety of cognitive and personal characteristics that influence the extent to which individuals invest these resources in a creative task (Garfield et al., 2001; Madrid and Patterson, 2016; Slåtten et al., 2011). Karwowski and Lebuda (2016) examined such creativity-relevant processes through the lens of surface self-concept characteristics and skills (i.e., surface traits of creativity) and referred to them as key determinants of an individual conviction about own creativity and creative ability. Surface traits include perceptions of creative self-beliefs (CSBs), creative self-concepts or creative self-perceptions (CSPs) (Flammer, 2015; Kaufman et al., 2016; Rice, 2006).

The existent literature highlights that surface traits (i.e., CSBs, CSPs) are deeply rooted in stable traits (Karwowski and Lebuda, 2016). This view was earlier suggested by Asendorpf and Van Aken (2003) who advocated that personality traits influence the nature and character of surface traits rather than reverse. Stable traits also support the development of surface traits and lead to higher creativity (Karwowski et al., 2013). Hence, a combination of stable and surface personality traits is likely to predict creativity, i.e., creative achievement and perceptions of own creativity. This occurs when both traits are incorporated and used by employees in the process of creative development and behaviours. Within the surface traits, there are four main traits that predict CSBs and CSPs, and they include self-rated creativity, creative self-efficacy, creative

personal identity and creative metacognition (Rubenstein et al., 2018; Sanz De Acedo Lizarraga et al., 2014). Surface traits of creativity are defined in Table 2.7.

**Table 2.7 Surface Traits of Creativity**

Construct	Definition	Reference
Self-Rated Creativity (SRC)	The extent to which individuals “insight into, or aware of, their own creativity” (Furnham et al., 2008, p. 1062).	An adjective list: (Batey, 2007); Employee creativity scale: Zhou and George (2001)
Creative Self-Efficacy (CSE)	“the belief one has the ability to produce creative outcomes” (Tierney and Farmer, 2002, p. 1138).	Creative self-efficacy: Tierney and Farmer (2002); Short Scale of Creative Self: Karwowski (2012)
Creative Personal Identity (CPI)	“the extent to which creativity is treated as an important part of an individual’s identity (Karwowski et al., 2018, p. 46).	Creative Personality Scale: Gough (1979); Short Scale of Creative Self: Karwowski (2012); A scale of creative identity: Jaussi et al. (2007)
Creative Metacognition (CMC)	“a combination of self- and contextual knowledge used to make decisions about one’s creative efforts and accomplishments” (Kaufman et al., 2016, p. 394).	Visual, Verbal and Scientific exercises: Kaufman et al. (2016)

Source: compiled by the author

The summary of research on the surface traits for creativity is discussed in turn.

1. Creative self-efficacy (CSE) – in previous research, CSE has been the strongest predictor of individual involvement in creative tasks and outcomes (Hass et al., 2016). CSE is defined as a perception that one is capable to reach creative outcomes (Liu et al., 2016; Tierney and Farmer, 2002). The application of CSE is specific to a particular task or a context (McKay et al., 2018), this means that employees engage in a creative task at work only when they believe that they are capable to reflect creativity. Perceptions of CSE can be developed, particularly this occurs when employees engage in a creative task and through the application of creativity increase confidence in creative ability. In previous studies, such effects were attributed to the issue of growing mindsets (Karwowski, 2014; Royston and Reiter-Palmon, 2017), for example, this happens when individuals learn how to behave more creatively and progress from lower to higher levels of creativity (Hartley et al., 2016). This consideration is important for this research, particularly creativity may be increased through the HRD intervention which is designed as a learning activity and which helps to develop confidence in creative skills.

2. Creative personal identity (CPI) is defined as “the extent to which individuals consider creativity as an important part of personal identity” (Karwowski et al., 2018, p. 46). CPI is a less stable trait than CSE, there is also a strong relationship of CSE with CPI rather than the reverse. For example, high perceptions of CSE translate into higher perceptions of creative personal identity than the reserve (Karwowski and Barbot, 2016). This means that for the process of

creative development, the influence of the HRD intervention on CSE should be stronger than CPI to lead to greater creativity.

The available research provides evidence connecting CSE and CPI with creative performance (Bellò et al., 2018; Tang and Werner, 2017). Such connections were explored using a sample of a business and educational sector and measured by a range of instruments, such as expert evaluations, self-reports, and peer assessment (Haase et al., 2018; Royston and Reiter-Palmon, 2017). The general outcome of such studies is that CSE and CPI engage in a strong and statistically significant relationship with individual creativity (Jaussi et al., 2007; Karwowski, Royston, et al., 2019; Pretz and McCollum, 2014). Such effect is normally attributed to CSE which mediates creative task engagement and creative mindsets. In particular, CSE increases tolerance of failure (Byrge and Tang, 2015), mitigates uncertainties (Wang et al., 2018), increases self-confidence and capability in creativity (Royston and Reiter-Palmon, 2019) and, in turn, promotes higher creative performance.

In addition to CSE and CPI, links of surface traits with stable traits for creativity were explored (Hughes and Batey, 2017). Table 2.8 illustrates connections of surface traits with creative behaviours and highlights the strength of the relationship.

**Table 2.8 Links Between Surface and Stable Traits<sup>1</sup>**

CSBs	Reference	Sample	Sector	Findings				
				O	C	E	A	N
SRC	Kandler et al. (2016)	Adults, Germany	No sector	0.26**	0.10**	0.25**		-0.16**
	Furnham et al. (2013)	Adults, UK	No sector	0.36***		0.23***		
	(Furnham et al. (2011)	Students, UK	University	0.44**				
	Batey et al. (2010)	Students, UK	University	0.46**				-0.20**
	Furnham et al. (2008)	Students, UK	A school	0.36***		0.35***		
	Furnham and Bachtiar (2008)	Mixed, UK	Private school, no sector			0.17*		
	Furnham et al. (2005)	Students, UK	University			0.30*		
CSE	Pretz and McCollum (2014)	Students, USA	Arts college	0.70**		0.50*		0.33*
	Hsu et al. (2011)	Adults, Taiwan	Beauty sector	0.71**	0.61**	0.30**	0.39**	
CPI	Burch et al. (2006)	Students, UK	University	0.25*		0.31*		-0.23*

Source: adapted from Hughes and Batey (2017)

<sup>1</sup> O – Openness to Experience, C – Conscientiousness, E – Extraversion, A – Agreeableness, N – Neuroticism



Several important considerations should be highlighted from Table 2.7:

- Several surface traits (i.e., SRC, SCE and CPI) build positive and statistically strong relations with stable traits, i.e., Openness to Experience and Extraversion (Hughes and Batey, 2017). This reinforces the previous discussion (see Section 2.5) on the connection of Openness to Experience and Extraversion with creativity. It also provides further evidence that creativity requires a combination of stable and surface traits (Karwowski et al., 2013). Hence, individual beliefs about being creative at work are predicted by abilities to engage in novel and intellectually inspiring experiences (i.e., Openness to Experience) and behave assertively and sociably at work (i.e., Extraversion). Hence, a strong connection of CSBs with stable traits is established.

- There are less consistent relations of SRC and CSE with the stable trait of Conscientiousness. Such insights are in line with research by Reiter-Palmon et al. (2009) who argued that that neutral or negative relations of CSBs with Conscientiousness might be due to suppression effects of the meta-traits of Conscientiousness on creativity (i.e., Industriousness and Orderliness). This means that positive increases for creativity along the one meta-trait (i.e., Industriousness) for creativity can be suppressed by the other meta-trait of Orderliness and, therefore, lead to low creativity. The suppression effect may be influenced by external forces, such as low motivation for creative task engagement, but this link lacks empirical testing. For example, individuals who undertake creative work for the sake of self-enhancement or achievement would be likely to score higher on creativity than those who engage in a task for the sake of duty or responsibility. Overall, there is a general recommendation to select facets from the Conscientiousness trait and explore them in relation to creativity rather than to utilise the whole trait in the analysis.

- There are mixed connections of CSBs with the trait Neuroticism. In line with previous research (McCrae, 1987; Anwar, 2017), negative connections may indicate that creative individuals are stronger prepared for emotional distress and, therefore, are emotionally stable. Positive connections imply that there are issues with emotional stability, and this can be attributed to low levels of confidence and self-esteem in creative abilities. Such effect can be attributed to the meta-traits of the trait Neuroticism, namely Volatility and Withdrawal (Kaufman et al., 2016). For example, individuals who experience positive affective states (i.e., enthusiasm for creativity) may become less sensitive to anxiety (i.e., low Withdrawal) therefore demonstrate higher creativity. However, the relationship turns negative when employees feel less confident about the creative task (i.e., high Volatility) and through negative emotions (i.e., high Withdrawal) start to behave less creatively at work. This is an important consideration for this research, i.e., effort should be taken to organise and structure the HRD intervention in a way that it is an engaging and emotionally encouraging exercise.

- Finally, inconsistent connections of CSBs with the trait Agreeableness are shown in Table 2.7. Such insights are in line with previous research that suggested that creative individuals tend to be independent and less conforming than agreeable people. Therefore, they score low across the Agreeableness scale (Coelho et al., 2018; Da Costa et al., 2015; King et al., 1996). Hence, there is generally a weak connection of creative behaviours with the trait of Agreeableness (Karwowski et al., 2013; Lebuda et al., 2019).

Generally, there is scarce research exploring the connection of surface traits with stable traits. Research by Hughes et al. (2013) noted that only a few studies examined the link of CSBs with personality for creativity. Hence, this research adds to this gap with evidence collected during the process of creative development via the HRD intervention and through influences on the stable and surface traits of creativity.

In summary, a spectrum of the surface traits for creativity is identified and discussed in attempts to envisage the relationship of creativity with surface and stable traits. Of the surface traits, CSE has been the strongest predictor of creative behaviour, it builds strong and statistically reliable links with the traits Openness to Experience and Extraversion. Insight into the relationship of CSBs with stable traits remains scarce and incomplete; therefore, there is a general recommendation to undertake further research in this area. However, as highlighted by Karwowski et al. (2018), stable and surface traits alone do not explain the nature of creativity. In Section 2.6, a driver for creativity (i.e., motivation) is discussed to complete examinations of creativity at the individual level.

## **2.6 Understanding a Driver and Individual Creativity**

A driver is a motivation to complete a specific task (Amabile and Pratt, 2016). In previous studies (for example Mahmood et al., 2019; Shin et al., 2018; Zhang and Bartol, 2010), motivation was explored as an intrinsic and extrinsic factor for creativity; it demonstrated strong connections with creative behaviours. For example, positive effects of intrinsic motivation on creativity were attributed to its ability to increase attention (i.e., concentration, allocation of personal resources, effort) (Zhang and Bartol, 2010) and flexibility of thinking processes (i.e., ideational processes, explorations from multiple perspectives) (Liu et al., 2016). The recent reconceptualisation of the Componential Model of Creativity (Amabile and Pratt, 2016) reinforced the role of the intrinsic and extrinsic motivation for creativity, particularly they are viewed as complementary and mutually supportive processes which increase creative task engagement, i.e., through perceptions of job meaningfulness, a progress loop, affective states at work.

A body of previous research advises that intrinsic motivation is more related to creativity than extrinsic motivation. Namely, extrinsic motivation was considered capable to undermine creativity. For example, when it is viewed by employees as an organisational pressure or

obligation to do creative work, it can reduce their natural intention to engage in the creative task (Andreeva et al., 2017; Bysted and Hansen, 2015; Jiang et al., 2012). Hence, complex connections exist which link motivation with creative behaviours at work.

Research examining the connection of motivation with stable and surface traits for creativity exists. For instance, research by Karwowski et al. (2018) showed that CSE was strongly associated with intrinsic motivation, whereas CPI built strong relations with intrinsic motivation and negative relations with extrinsic motivation. Such findings were further expanded by Tan et al. (2019) who found that intrinsic motivation mediated the connection of Openness to Experience with creative task engagement. Particularly, the authors found that high levels of intrinsic motivation increased creative process engagement and translated into a stronger mobilisation of individual resources (i.e., Openness to Experience) and effort for creativity. Such insights are practical to this research which seeks to enable creativity through the HRD intervention, particularly the research population should comprise of managers who are intrinsically interested in creativity and be willing to learn about new creative behaviours.

A further array of research relevant to this discussion on the link of motivation with personal factors of creativity is that of motivation theory. In line with this research, the degree of intrinsic motivation and its influence on creativity depends on certain higher-order needs and degrees of their satisfaction (Patrick et al., 2007), i.e., needs for autonomy, competence and relatedness. For example, if the three needs are satisfied, an individual is likely to reflect higher intrinsic motivation and perform more creatively at work. Furthermore, intrinsic motivation is influenced by external forces (i.e., training and development, targeted interventions) which in turn impact the development of creative personality (i.e., cognitive, behavioural) (Amabile, 1997). Such insights were recently confirmed by Glăveanu and Kaufman (2019) who argued that intrinsic motivation can facilitate the development of creativity (i.e., from mini-c to little-c).

Finally, there are elements in the work environment that are capable to strengthen motivation and enhance individual creativity:

- This may occur through ‘the progress loop’, defined as progress in creative work/task (Puccio et al., 2018), it manifests in feed-backing mechanisms and psychological safety (i.e., feelings that employees can safely express their ideas and thoughts). The progress loop helps to keep employees engaged in creativity because they feel that creative behaviours are interesting and safe exercises and do not imply a negative sequence on their careers. Hence, the progress loop is likely to increase intrinsic motivation for creativity in the long term (Amabile and Pratt, 2016).

- There is also ‘work meaningfulness’ for creativity which emerges when employees consider the creative task personality meaningful and important. If this is the case, employees are likely to remain persistent in the task (Jeong et al., 2017; Tan et al., 2019; Tavares, 2016).

- Finally, the importance of (positive) ‘affective states’ for intrinsic motivation and creativity was highlighted by Hughes et al. (2013). Here, positive affective states are defined as emotions that are positive in nature (Drapeau, 2010); they predict the way individuals utilise their emotions for motivation and creativity. For example, if creative experiences are associated with positive affective states (i.e., fun, laughter, joy), positive emotions are likely to increase cognitive processes that are associated with creativity and result in higher outcomes (Amabile and Pratt, 2016).

Hence, the connection of motivation with creativity exists through the progress loop, job meaningfulness and affective states. Such considerations are important in this research and practical in the process of development of the HRD intervention. For example, they can help to plan the structure of the creative activity (i.e., HRD intervention) and the processes aiming to support the reflection of the individual and environmental components of creativity.

In summary, this section examined the ‘driver’ of individual creativity. Previous research investigated the role of motivation for individual creativity and highlighted strong links of motivation with CSBs and personality. The existing research emphasised the developmental character of motivation; higher motivation can also increase orientations for creativity and facilitate creative behaviour. This occurs through external forces (i.e., training and development) and is supported by external mechanisms such as progress loop, work meaningfulness, positive affect. Amabile and Pratt (2016) emphasise that creativity-relevance processes and mechanisms are similar at both individual and organisational levels. Hence, considerations of creativity components at the organisational level are essential for dynamic and comprehensive examinations of creativity within organisations. The components of creativity at the organisational level are discussed in Chapter Three.

## **2.7 Chapter Summary**

This chapter has reviewed the literature on individual creativity including studies on the individual creative potential and the key components of creativity at the individual level. It has been highlighted that creativity can be trained and developed, and this occurs due to external stimuli (such as training and development) and their influence on the components of creativity. The development of creativity occurs through the influence of training on the personal and environmental components. However, this process is not straightforward as the stable traits are relatively static and are not easy to increase. The surface traits are in turn prone to change therefore are key to bringing about the developmental nature of creativity. Whilst there is a consensus that creativity is a trainable skill and an antecedent of innovation and problem-solving, our knowledge is still insufficient to explain how this development occurs at work.

The review of the literature in this chapter has identified the theme which is associated with the developmental nature of creativity (i.e., external force). In Chapter Three, the components of creativity at the organisational level will be discussed and linked with the challenge of creative development. Hence, Chapter Three will now proceed to review the literature on creativity at the organisational level.

# **CHAPTER THREE**

## **Creativity and the Organisation**

### **3.0 Introduction**

Chapter Two presented an extensive literature review on creativity at the individual level and considered previous research on the components of creativity. Several knowledge gaps were identified relating to how to initiate and provoke the process of creative development, i.e., how and what considerations exist that encourage and promote higher levels of creativity. The need to consider contextual issues and how they impact creativity was also highlighted. To address this gap and explore the research questions in Chapter One, this chapter discusses the literature on the creativity components at the organisational level and their connection with creativity. Developmental conceptions of creativity through the HRD intervention are also considered throughout the chapter.

This chapter begins by outlining the components of creativity at the organisational level. The discussion then moves to creative development at work focusing on the research that explored this issue in detail. Ultimately, HRD and the work environment for creativity are the explicit focus of this chapter.

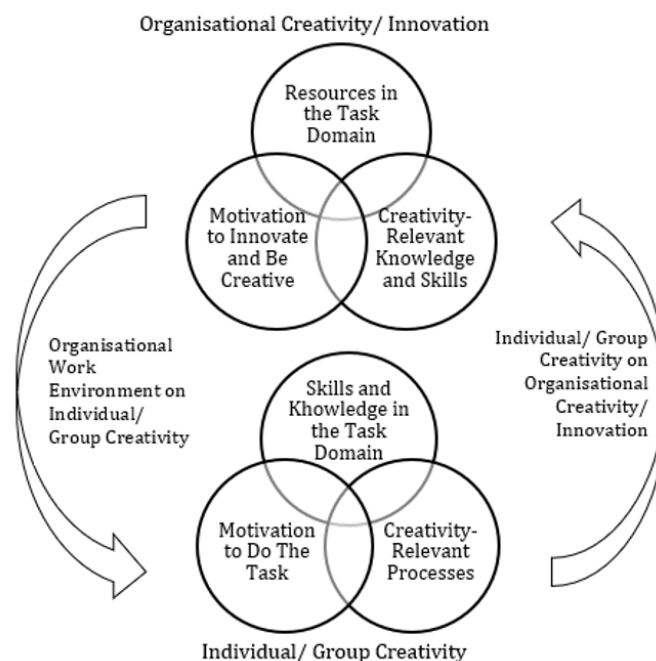
### **3.1 Creativity at the Level of the Organisation**

The problem of a lack of creativity in modern organisations has been emphasised in relevant studies. Creativity is often viewed as a source of sustainable advantage and long-term success of contemporary organisations (Chen and Zhang, 2019; Zare and Flinchbaugh, 2019). Evidence presented in different streams of literature such as organisational innovation, organisational psychology, knowledge management, leadership and human resource management is valuable in helping understand the role of creativity. However, gaps exist when appraising the complexity of creativity which reinforces the need for more sophisticated approaches to the problem of creativity engagement and impact (Corazza, 2019; Garavan *et al.*, 2019). A variety of research design methodologies have been applied and examined with the emergent findings providing inconsistent and sometimes conflicting results, thereby provoking further confusion (Garavan *et al.*, 2019). A variety of perspectives on creativity at the organisational level are discussed throughout this chapter.

Creativity should be examined within the context and in consideration of the forces in the external environment (Choi *et al.*, 2009; Cooke and Saini, 2010). As highlighted by Amabile and Pratt (2016), the general understanding of creativity at the organisational level is achieved by investigating its constitute components, namely basic materials, creativity-relevant processes and a motivation to innovate and be creative. This is to say that the analysis of creativity should be done in precise categories. These authors highlight that the components of creativity are

understood when they are explored within the influence and characteristics of the environment (see Section 2.3 in Chapter Two for discussion).

The components of creativity at individual and organisational levels are mutually interconnected and co-dependent. This means that the components at individual levels feed organisational innovation, and in turn, the components at the organisational levels facilitate individual attitudes and behaviours. For example, individuals acting as sources of knowledge and ideas help organisations explore creative solutions. Here, the role of organisations is to support individual creative behaviours. Previous studies highlight that support can be given in the form of opportunities for employees to reflect their creativity within the workplace, and this ultimately supports extrinsic motivation (such as organisational calls for creativity) and intrinsic motivation (Aleksić et al., 2016). The support can also be in the form of the creativity enabling work environment (Choi et al., 2009; Heffernan et al., 2016; Horng et al., 2016; Sung et al., 2018). Exploring characteristics of the creativity enabling work environment has been a long research interest. The current evidence suggests that connections between the environment and employee creativity exist through creativity enabling managerial strategies, leadership styles and communication practices (Nolan et al., 2020; Hirudayaraj and Matic, 2021). Relationships between the components of creativity at individual and organisational levels are illustrated in Figure 3.1.



**Figure 3.1 The Cross-Level Interaction of Creativity Components**

Source: adapted from Amabile and Pratt (2016)



As Figure 3.1 illustrates, the components of creativity at the organisational level include basic materials in the domain, creativity-relevant knowledge and skills, and motivation to innovate and be creative.

1. Basic materials are understood as key resources in the task domain (Amabile and Pratt, 2016). They include a wide array of tangible and intangible resources, such as materials, infrastructure, information sources, or sufficient time. For creativity research, human resources in any organisation are the key basic materials and are a key source of creativity.

A body of previous studies attempted to capture a set of competencies leading to creativity and superior performance (Sica et al., 2019; Somsing and Belbaly, 2017). The relevant studies are found in the areas of talent management, knowledge management and recruitment practices, which agree that organisational creativity requires a pool of true creative talents (Gupta and Banerjee, 2016; Jeong et al., 2017; Woods et al., 2018). For instance, Jiang et al. (2012) showed that screening prior to recruitment and careful hiring procedures positively contributes to the overall level of creativity in organisations. These findings were supported by Wang et al. (2012) who posited that in addition to creative outcomes, recruitment mechanisms enhance the practices of knowledge creation and exchange across organisational levels which can increase the flow of new ideas. However, these findings were challenged by psychological research which has argued that creative performance is predicted by individual characteristics (i.e., the components of creativity as discussed across Sections 2.3-2.6 in Chapter Two) rather than a pool of true creative talents (Karwowski, 2014).

When acknowledging the types of creativity required at each level of the organisation, the connection between the individual competencies and creativity becomes more complex. For instance, fixed mindsets (i.e., special gifts and talents) are essential at the level of organisation and strategy, whilst growing mindsets are desirable at the level of individual departments (Hass et al., 2016). Challenges of growing mindsets are discussed in Section 2.6 in Chapter Two. Growing mindsets can allow employees to learn and explore a variety of ideas in order to improve their individual and departmental performance. However, little is known about how creativity can be learnt and developed within the workplace, and this study explores this issue.

2. Creativity at the organisational level requires creativity-relevant knowledge and skills to combine the basic materials in new ways. This includes skills and practices in innovation management which are designed to encourage employee creativity (Amabile and Pratt, 2016). In previous studies, such practices were explored through the policies in creative talent management; these practices aimed to develop an environment that was favourable to creative development (Karwowski et al., 2019; Kontoghiorghes, 2016; Li et al., 2018).

Within the management remit, Human Resource Management (HRM) practices have been acknowledged to govern the relationship between human capabilities and organisational

performance (Youndt et al., 1996). A rich stock of evidence exists showing that a sum (a bundle) of internally consistent HR practices influence organisational innovation and creativity (Fu et al., 2015). For example, using a national survey database and follow-up survey results collected within the Irish context, Heffernan et al. (2016) found that HRM practices maximise employee capabilities and stimulate the creativity climate, and this, in turn, leads to performance benefits. Shipton et al. (2017) added that there were top-down implications of the HRM practices on individual creative performances. For instance, they increased perceptions of the creativity favourable organisational environment as well as individual motivation for creativity. Furthermore, Jiang et al. (2012) found strong connections between several HRM practices (hiring and selection, reward, job design and teamwork) and organisational innovation, and this relationship was moderated by employee creativity. Finally, the recent conceptualisations by Shin et al. (2018) found significant cross-level associations between a bundle of HRM practices (i.e., extensive training, job design, effective feedback) and individual creativity, and this relationship was facilitated by intrinsic motivation. The above examples of previous research illustrate that the link between HRM and individual/organisational performance has been established and evidenced in the literature.

In contrast to the bundled approach of HRM practices to creativity, there is a single-based approach that advocates for single HRM practices to deliver more thorough examinations of creativity. The approach arose in response to the limitations of the bundled approach. For example, Binyamin and Carmeli (2017) posited that a sum of HRM practices often fails to design and administer a supportive HRM system for creativity. Therefore, the authors called for research within more structured HRM practices that could keep individuals engaged and psychologically empowered for creativity. Loewenberger (2016) earlier added to this discussion that research on the direct influence of individual HRM practices on creativity is far from being clear. This thesis addresses these deficiencies noted by explicitly focusing on a single Human Resource Development (HRD) function as a facet of HRM and its direct connection with creativity.

3. The third component of creativity refers to 'organisational motivation to innovate and be more creative' (Amabile and Pratt, 2016). The organisational motivation for creativity is delivered through a creativity favourable work environment (Heffernan et al., 2016). Amabile et al. (1996) explain that the work environment acts as an organisational infrastructure that promotes a flow of ideas and thoughts, challenging work and communication across the levels of an organisation. It directly affects employee perceptions of organisational support for being creative, for example, provision of sufficient time for being creative, freedom to express ideas, and managerial support (Moultrie and Young, 2009).

Connections of the work environment with creativity exist at the levels of teams. The recent study of Sung et al. (2018) found that teams can deliver the collective climate for creativity. This

study was based on the quantitative research approach and a total number of 856 employees across 102 work units. The authors found that the collective climate emerges when employees as members of a team participate in organisational opportunities of creative problem-solving. These opportunities initiate the learning of employees, for instance, they together are exploring creative solutions and exchanging ideas from different perspectives. As a sequence of this, employees were found with stronger intrinsic motivation and attitudes to creativity. Teams were also likely to support long-term employee creativity. However, this study did not examine actual behavioural and cognitive processes which emerge from teamwork. Therefore, it is still unclear how connections between the work environment and individual creativity occur through the level of teams. This research will contribute to this gap by exploring the role of HRD in enabling employee creativity. In this study, managers will work as members of a team and practice the CPS process during the HRD intervention (see Sections 5.3.3 and 5.4.4 in Chapter Five).

In addition to the direct link of the work environment with creativity, there is also an indirect relationship. For example, the study of Hassi (2019) explored the relationship of the leadership style (i.e., empowering leadership style) with creativity and reported that employees from the front of house departments in the hotel sector were likely to exhibit creativity. In this study, the empowering leadership style was an essential characteristic of the work environment. Similar findings were reported in earlier research by Slåtten et al. (2011) and Jaiswal and Dhar (2015) who argued that the expression of creativity across job roles was supported by a creativity enabling work environment which was in turn linked to a supportive leadership style. In these studies, the leaders were essential figures in expressing behaviours that were expected from employees. They did this by establishing the behavioural norms, providing opportunities for creative work and knowledge exchange. However, the role of leadership in the nexus of HRD and creativity is not yet known, for example how leaders encourage individual/team creative behaviours and strengthen their creative performance (Arora and Suri, 2020). This research will contribute to the gap by exploring characteristics of the leadership style in the nexus of HRD and creativity; namely, the characteristics that are perceived to be supporting of individual creativity.

In summary, the components of creativity are similar at both individual and organisation levels. They include basic materials, creativity-relevant processes and skills to combine the raw resources in new ways, as a driver (motivation). In previous studies, connections between organisational and individual components of creativity have been evidenced, and the findings confirm strong and mutually dependent relationships. In the following sections, components of creativity at the organisational level are discussed in further detail and considered in the context of HRD.

## **3.2 Understanding the Role of HRD for Creativity**

Creativity is a central issue in the HRD/HRM literature (Joo et al., 2013; Garavan et al., 2021; Manucci, 2021). HRD is understood as “a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic development of a highly committed and capable workforce, using an integrated array of cultural, structural and personnel techniques” (Storey, 1995, p. 5; cited in Rees and French, 2016). Joo et al. (2013) add that “HRD can play a pivotal role in enhancing employee creativity and in building a more appropriate contextual environment for creativity by providing employees with learning and development opportunities and by changing the organisational culture and practices” (p. 392; cited in Gomes et al., 2016). This means that HRD can be well-placed to influence creativity using a complex of long-term activities and initiatives that are designed for employees’ development within an organisation (Gilley and Maycunich, 2000; cited in Tseng and McLean, 2008). Furthermore, effective use of HRD increases organisational dynamic capabilities, defined as the organisational capacity to create, develop or modify its resources (Guthrie et al., 2009; Sheehan et al., 2013). Specifically, by investing in human capital and supporting value creation in an inimitable way, an organisation creates a pool of high-quality human resources, whose job performances provide relative productivity advantages over competitors (Guthrie et al., 2009; Pilbeam and Corbridge, 2010).

From the practice development perspective, the effect of HRD on human capabilities is achieved due to training initiatives, such as planned interventions in individual and organisational learning (Gibb and Waight, 2005; Trehan et al., 2006; Garavan et al., 2015; Nolan et al., 2020). Argyris (1983) defines learning as “a process in which people discover a problem, invent a solution to the problem, produce the solution, and evaluate the outcome, leading to the discovery of new problems – resulting in an increase, through experience, of problem-solving ability” (p. 346; cited in Isaksen, 2020). Cognitive aspects of learning are at the core of the training process, which allow for the emergence of new abilities and skills by practice and experience. Hence, the challenge for those designing HRD learning interventions is to ensure that creative abilities and skills are properly developed and that participants are guided through the problem-solving process. Argyris’s definition also refers to the learning process as a cycle of problem-solving and that an effective learning process is based upon allowing participants to engage in appropriate ‘thinking’ and ‘doing’ (Puccio et al., 2006). It becomes evident that action provoking HRD interventions that aim at allowing for thinking and doing at both the individual and organisational learning levels are vital for effective creative development within the workplace. For example, by engaging managers in problem-solving learning initiatives, HRD initiates thinking styles and through the application of thinking processes develops CPS capacities (Coghlan, 2019; Min et al., 2016).

Connections between HRD and creativity are found in different dimensions and organisational mechanisms (several found in Table 3.1). This shows that HRD is related to creativity through a range of practices including training and development, job context and motivation.

**Table 3.1 Connections Between HRD and Creativity**

Constructs	Dimensions	HRD
Personal characteristics	Domain-relevant skills	Training, learning, development, on-the-job activities, micro-interventions
	Creativity-relevant processes	
	Task motivation	
Organisational context	Organisational learning culture	Organisation development: <ul style="list-style-type: none"> <li>• Continuous learning opportunities.</li> <li>• Promotion of inquiry and dialogue.</li> <li>• Encouragement of collaboration and teamwork.</li> <li>• Creation of systems for knowledge creation and exchange.</li> <li>• Employee empowerment.</li> <li>• Connection of organisation to the environment.</li> <li>• Support of learning across all levels.</li> </ul>
Social context	Leadership styles	Development of skills and knowledge
Job context	Job design	Promotion of employees' enthusiasm for work, mental resilience, cognitive involvement
	Psychological empowerment	
	Employee engagement	

Source: adapted from Joo et al. (2013; 2014)

Creativity as a distinct human ability (Othman and Khalil, 2018) is linked to HRD through action and practice-based learning. However, conflicting results have emerged from research designed to understand how creative abilities may be developed. For example, Meinel et al. (2018) reported that creativity training can be effective for developing and improving creativity outcomes, such as creative performance. More specifically, the research population in question was able to set more specific goals and incorporate novel and goal-oriented strategies in the post-training period. The training was in the form of a one-semester university course that strived to provide students with creative thinking. However, the findings showed that developing creativity was nuanced. In particular, the training was less effective in terms of enhancing surface traits such as CSE therefore such traits were believed to be relatively stable and less open to modification as a result of participation in training initiatives. In contrast to this research, the study by Tang and Werner (2017) demonstrated that two-week interventions provoked increases in CSE and self-rated creativity. Such conflicting results in terms of influencing surface traits (CSE) by interventions, as evidenced by the studies of Meinel et al. (2018) and Tang and Werner (2017), can be explained by the nature of training activities employed in prior research.

Particularly, the interventions used in the study of Tang and Werner (2017) involved action-oriented creative exercises, such as role-playing and teamwork for creativity; and those activities may be more effective in initiating behaviours and cognitive processes associated with creativity than a university study course (as in the research of Meinel et al., 2018). The current study incorporates action-oriented creative exercises in the HRD intervention, for example, warm-up exercises and developmental activities, in order to initiate creative abilities (both stable and surface traits) and enhance employee creativity (Kienitz et al., 2014; Mumford et al., 2012).

In addition to creative self-belief, the relationship between HRD and creativity is linked to the issue of motivation. Research conducted by Mihret Dessie and Shumetie Ademe (2017) showed that creativity training can harness intrinsic motivation and creative thinking. The findings advised that organisations that adopted practices for training and development in creativity resulted in stronger creative development and the formation of creativity habits than organisations without such training. Similar links were earlier suggested by Min et al. (2016) and Huang et al. (2016) who noted that HRD may increase knowledge acquisition and promote stronger inclinations for creativity. In addition to motivation, the authors found that HRD may increase creative self-efficacy (discussed in Section 2.5 in Chapter Two), such as a feeling that employees have an ability to generate creative solutions. However, understanding the impact of HRD on creativity is still very limited, and the literature conveys little about how the two can conceptually and methodologically be connected and examined. This thesis addresses the limitation with a conceptual model of creativity (see Section 4.2 in Chapter Four and Section 7.1. in Chapter Seven) which connects the HRD lens with the process of creative development.

Finally, the cross-level investigations of HRD and creativity indicate that training interventions support creativity from both lower levels of management. In this case, creativity was viewed as employee-driven behaviours that sought to respond to organisational problems with creative and innovative solutions (De Spiegelaere et al., 2014; Smith, 2017). For example, the research by Chowhan (2016) showed that HRD delivered as part of a sum of HRM practices enhanced innovation performance of employees. This happened by increasing and optimising their levels of creative skills. The findings also demonstrated that on-the-job training facilitated the transition of employees from lower to higher creativity workplaces, and this process was supported by organisational investments in employee development and job mastery. The job transition can also be facilitated by the creativity favourable climate at the level of teams (Sung et al., 2018) and the organisation (Loewenberger et al., 2014). Hence, these findings on the cross-level connections of HRD and creativity advise that creativity from lower levels of management is supported by HRD. However, the research by Chowhan (2016) did not explore a direct influence of HRD on creativity such as how HRD was implemented within the work environment and developed creative skills; hence, the above assumptions cannot be confirmed with a degree

of confidence. This study will contribute to this gap by implementing the HRD intervention within the case organisations and exploring its impact on creativity. Namely, this research will examine the impact of the HRD intervention on the ability of managers from different levels of management to behave more creatively in their work.

The above demonstrates that the connections between HRD and creativity have been addressed in the previous research. However, gaps exist when appraising how HRD can enable creative development within the workplace, such as its influence of stable and surface traits of creativity and motivation. The following sections will summarise the available research in this area.

### 3.3 Connecting HRD With Creativity Research

The previous section highlighted the important connections between HRD and creativity, such as the surface traits (CSE), motivation, and creativity from different levels of management. The integrative view on the creative process by Amabile et al. (1996) suggests that an interaction of personal and environmental components is necessary for creativity to occur. From the HRD perspective, this relates to internally consistent and aligned HRD practices that are embedded within the organisational culture (Lepak et al., 2006). Table 3.2 illustrates several connections between HRD systems and creativity.

**Table 3.2 Connections of HRD Systems in Relation to Creativity**

HRD System	HRD practice	Creativity
Facilitation	Experiential learning, training and development	Coaching, mentoring, small group work
Play	Organic and natural forms	Game play, user engagement, decision making
Community and dialogue	Social construction, making sense in creative communities	Open spaces, knowledge and ideas exchange, group work

Source: adapted from Gibb and Waight (2005)

Previous research (Joo et al., 2013; 2014) highlights that HRD practices associated with training and development are best suited to influence creativity, for example, to increase attitudes to creativity and motivation. Training and development occur through experience and reflection thus require practical application of creative skills and abilities (Isaksen, 2020; Treffinger et al., 2008). In this process, employees are provided with the opportunities to take part in learning and develop new skills and abilities. Furthermore, training and development contribute towards the creation of a learning organisation, and this happens when organisations identify creativity as a corner of their HRD practices and promote individual creative development (McCormack and Titchen, 2014). For example, this may occur when organisations promote regular creative

initiatives, such as employees from different departments and job roles create ideas together and explore how to become more creative within the workplace. These views were earlier supported by Mumford et al. (2012) who noted that formal training programmes that were delivered as part of the organisational strategy can enhance creative thinking skills of employees. For example, it results in greater quantity and quality of creative ideas (Loewenberger et al., 2014).

Connections of training and development with creativity has been the focus of previous HRD research (Brown and Latham, 2018; Lau et al., 2017). Namely, the research has been to explore the impact of HRD practices on creativity, such as the extent of employee creativity. For instance, the study by Kienitz et al. (2014) arranged two-hour group activities over five weeks in order to understand the issue of creative development. The findings showed that such training programmes were increasing creative abilities (CSE) and motivation for being creative. After this training, the participants were found to be more open-minded, able to consider ideas from different and untraditional perspectives and be capable to formulate more creative ideas. Similar insights were found in another study by Tang and Werner (2017) who found that the research participants increased their self-belief linked to creativity after the training intervention. The authors ran a two-week intensive creativity programme, involving six to eight training hours per day. The authors however found that the long-term impact of such training was limited; namely, there was a slight drop in scores across the CSE scale one year after the training. These studies are therefore consistent with the assumptions that training and development can develop creative mindsets and task engagement (Karwowski et al., 2019). The key challenge of such interventions is however their short duration. The key task of current research is to explore how a longer-term impact of HRD on the ability of employees to become more creative and proactive at work can be achieved (Waight, 2005).

In contrast to the above findings, research by Ma (2006) did not find a direct link between the duration of training and its impact on creativity. The study conducted by Mathisen and Bronnick (2009) supported these findings and reported positive relations of both one-day and five-day training with creativity. However, the five-day programme resulted in stronger creative outcomes. Hence, the studies agreed that there is a connection between training and creativity and that even short micro-interventions may lead to a positive influence on creativity (Joo et al., 2013). This research will contribute to this discussion by focusing on the HRD intervention and exploring its short- and longer-term impact on the abilities of managers to be creative.

As can be appreciated from the previous sections, influencing and developing creativity via the HRD intervention is not easy (Latukha, 2018; Veenendaal and Bondarouk, 2015). Joo et al. (2014) suggest that HRD practitioners require an in-depth understanding of the person-context interaction at each stage of the development process. Section 3.3.1 integrates research on developmental approaches to creativity.



### 3.3.1 An Overview of Developmental Approaches to Creativity

Understanding the process of creative development is key to this research, for example how to deliver the creativity enabling work environment and the mechanisms that are conducive for creativity.

Developing creativity at work brings about a change in how individuals employ their thinking styles and apply them for idea generation (Denhardt et al., 2013; cited in Min et al., 2016). Such thinking styles can be defined as cognitive maps which consist of individual competencies, knowledge and learning abilities (Lin and Sanders, 2017). To help individuals to come up with new ideas, the task of the HRD intervention here is to initiate individual cognitive processes and integrate new information into existing cognitive structures. However, such a process entails substantial work (Baer, 2010). For instance, it requires individuals to overcome cognitive blocks and give rise to new thinking styles (Carmeli et al., 2013; Loewenberger, 2013). Such cognitive blocks can relate to different barriers which prevent individuals from exploring new ideas, such as feelings of being stuck in the process of creative development, inabilities to switch between thinking styles, and difficulties in exploring ideas that differ from established work practices. The previous research showed that training and development can be effective in overcoming such cognitive barriers. Particularly, employees were recorded with abilities to acquire the capacity of CPS, and this allowed them to develop creative solutions within the workplace (Isaksen, 2020; Loewenberger et al., 2014). Hence, the HRD intervention has the potential to bring about new thinking styles that are associated with creativity.

A creative approach is required to plan, design and incorporate training and development within the workplace (Checkland, 1981). The question '*what creativity approach is more effective?*' brought (Scott et al. 2004) to review 70 research studies on creativity training programmes. The results of the analysis showed that of the available practices for creativity, the creative problem-solving model has been the most effective to teach creativity at work. This model originated from the seminal work of Osborn in the middle of the previous century and is still extensively used in creativity research. The main advantage of this model is that it allows exploring creative ideas from the scratch and, in the meantime, develops the new capacity of problem-solving (Isaksen, 2020). The evidence confirms that the application of the CPS model for training and development can significantly increase outcomes of individual creative performance (Puccio and Acar, 2015), for example, it can initiate creative thinking such as divergent and convergent thinking styles and facilitate the emergence of new solutions. The logic of this process, and also in relation to the key stages of problem-solving, are illustrated in Table 3.3.

**Table 3.3 The CPS Process**

<b>Construct</b>	<b>Dimensions</b>	<b>Meaning</b>
Understanding the Challenge	Constructing Opportunities	Defining opportunities and goals
	Exploring Data	Understanding the situation
	Framing Problems	Expressing a challenge
Generating Ideas	Generating Ideas	Exploration of various ideas
Preparing for Action	Developing Solutions	Refining possibilities and turning them into feasible solutions
	Building Acceptance	Planning implementation and evaluation of solutions
Planning Approach	Appraisal Tasks	Setting KPI's
	Designing Process	Choosing and utilising strategies and tools for achieving the goals

Source: adapted from Treffinger et al. (2010)

The CPS process involves the four stages of problem-solving, namely 'Understanding the Challenge', 'Generating Ideas', 'Preparing for Action', and 'Planning Approach' (see Table 3.3). The stages occur dynamically and require the application of both divergent and convergent thinking styles. In particular, the process of creative problem-solving initiates with the search for good problems and understanding the situation, continues with generating ideas, defining own ideas, developing solutions to the problems, and completes with taking action and implementing solutions into practice (Isaksen et al., 2010). Application of both divergent and convergent thinking styles is the key outcome of the CPS, namely, through this process CPS initiates and develops complex thinking styles such as creativity (Puccio et al., 2006).

The impact of the CPS model on creativity delivers through several levels of influence (Puccio et al., 2006), such as influences on individual attitudes, behaviours, and work practices. In particular, the CPS can increase divergent thinking and openness to new ideas (Basadur, 1997; Treffinger, Isaksen and Dorval, 2010). This occurs when the research participants take part in the training initiative based on the CPS model and explore a variety of ideas (divergent thinking) in the process of problem-solving. The application of divergent thinking increases the flexibility and fluency of cognitive styles (Sica et al., 2019), and this ultimately relates to stronger ideational behaviour. Consistent with previous research (for example, Coelho et al., 2018; Tan et al., 2019), increases in ideational behaviours via divergent thinking are due to the ability of employees to become more open to new ideas and more assertive (for discussion see Section 2.4 in Chapter Two). In addition to cognitive styles, the CPS develops the motivation for being more creative at work and supports their interest in practising a creative activity (Da Costa et al., 2015). This happens when the employees become more interested in the creative activity and find it an interesting activity and integrate it within their work practices (Basadur et al., 2000). Finally, the impact of the CPS on creativity may be facilitated through the emergence of new work practices such as teams; for example, groups can increase collaboration and idea exchange (Wang and

Horng, 2002). However, empirical research is limited in this area. This research will contribute to this gap by exploring the process of creative development at the team level, as discussed in Chapter Five and Six.

In summary, connections between HRD and creativity have extensively been evidenced. Previous studies confirmed a strong influence of HRD on the creativity components at the individual level, such as surface traits and intrinsic motivation. HRD delivers a positive effect on creativity through its ability to involve employees in training and development. The CPS model has been the most effective framework for designing and delivering training within the workplace. As highlighted in Section 3.2, the components of the work environment are important for organising and delivering creativity at the organisational level. The following section explores the importance of contextual influences on HRD and creativity.

### **3.4 Understanding a Driver of Creativity at the Organisational Level**

The driver of creativity at the organisational level relates to the organisational motivation to be more creative (Amabile and Pratt, 2016). It takes the form of the creativity enabling work environment (Rhee and Choi, 2017). The work environment can be understood as “perceptions that employees hold about their organisation’s practices, policies and procedures” (James et al., 1990; cited in van Esch et al., 2018, p. 6). By adding ‘creativity’ to the definition, the creativity enabling work environment can be formulated as employee perceptions of organisational commitment to creativity and the availability of resources to operate creatively (Jaiswal and Dhar, 2015). The climate delivers the impact on creativity through the reciprocity norm. Within HRD research, the reciprocity norm implies that perceptions of the work climate (as constructed by HRD) result in individual motivation for being creative when employees perceive creativity to be central to their roles. HRD delivers such perceptions of the work climate through various learning, cognitive, and environmental impulses (Min et al., 2016). For example, if employees perceive that the organisation expects them to behave creatively, they are likely to respond to organisational encouragement and start to behave more creatively in their everyday work (Jiang et al., 2012).

In previous studies, connections of the creativity enabling work environment with creativity have been examined through the leadership styles and approaches, practices of teamwork, organisational characteristics and forces. Research on each topic will be examined in the sections below.

#### **3.4.1 Leadership Styles and Approaches**

Previous studies advise that different types and styles of leadership are connected with creativity. Two primary styles are usually recognised in the literature: supportive and controlling leadership styles (Zhang and Bartol, 2010). Studies have provided evidence that there are positive links

between styles of supportive leadership for creativity, for example empowering leadership (Kim, 2019), transformational leadership (Herrmann and Felfe, 2014; Tse et al., 2018). Such positive links with creativity are attributed to several mechanisms by which leaders can influence creativity, for example, provision of guidance and direction, support in the process of training (Shamim et al., 2019). Leaders also can create favourable psychological conditions which, in turn, motivate employees to participate in creative activities and reflect creative behaviours at work (Carmeli et al., 2013). Examples of such psychological conditions include tolerance for mistakes and failure, trust, interactive communication, and personal empowerment – they are all important in the process of training (Alerasoul et al., 2021). Furthermore, leaders can provide employees with essential resources such as materials and access to resources and knowledge which are critical to the emergence of creativity (Do et al., 2018) Hence, the role of leaders is paramount, and creativity outputs may not be realised without a particular degree of support from organisational leaders (Reiter-Palmon and Illies, 2004).

Previous research highlights that the development of creativity requires favourable psychological conditions in the relationship between leaders and employees (Jeong et al., 2017; Sitzmann and Weinhardt, 2018). Examples of such psychological conditions include feelings of safety and freedom to explore and exchange ideas. Previous studies have explored a variety of leadership roles and their potential to create favourable psychological conditions for employees and support their creativity (Joo et al., 2014; Kong et al., 2019; Liu et al., 2021). For example, Collin et al. (2020) suggested that leadership as a spar partner (e.g., when leaders understand the content of work) is best suited for developing creativity, because it can help with day-to-day problems, share ideas and promote a sense of autonomy/freedom among employees. As a result of this, employees are likely to feel more secure and become more involved in creativity in their work. However, Hu et al. (2018) cautioned that developing such favourable psychological conditions may not be simple, and it can be associated with barriers of knowledge sharing and poor psychological safety between leaders and employees. This may happen when employees experience feelings of fear for risk-taking and creative behaviours or when they do not perceive leaders as being part of their support circle. Kremer et al. (2019) add to this discussion and highlight issues around employee voice and knowledge sharing as another set of barriers in the relationship between leaders and employees. This can create a situation where employees find themselves disturbed, experience negative cognitive states and demonstrate less creativity in their work (Blomberg et al., 2017) Hence, the insights into effective leadership types and employees reactions to such types are an important issue in the process of creative development and the emergence of creative outputs. This research will consider these insights when planning the HRD intervention and the styles of facilitator support (namely the researcher in this study) in the process of creative development.

In addition to the above, previous studies advise that even more links exist in the relationship between leaders and employees in the process of creative development. For instance, the early research of Tierney et al. (1999) advised that characteristics and behaviours of leaders interact with the characteristics and behaviours of employees, i.e., certain leadership characteristics can influence how employees acquire new knowledge and develop new skills and abilities. In this process, leaders adopt a job model, as they emphasise and demonstrate a type of behaviour that they expect from employees and can eventually lead to the emergence of creativity outputs (Gilley et al., 2011). The study of Suifan et al. (2018) advised that influencing behaviours of employees requires a creativity enabling work environment, and leaders are essential in this process as they set rules for behaviours and ensure that these rules are followed. However, Heffernan et al. (2013) argued that making employees follow rules is not simple, furthermore, it is not yet known how leaders can set rules in the process of training and develop a creativity enabling work environment (Černe et al., 2018). This research will address this issue by examining the leadership style of the HRD facilitator and how this leadership style facilitates the emergence of creative behaviours in the course of the HRD intervention.

### **3.4.2 Practices of Teamwork**

Previous studies highlight that practices of teamwork can have a positive impact on individual creativity (Bam et al., 2019). Such impact is often attributed to the creativity enabling work environment at the level of teams, which “allows individuals to reframe their thinking to be able to integrate other’s perspectives and positions and thus learn in the process” (Parboteeah et al., 2015, p. 292). For instance, working in a team can encourage team members to share their knowledge and perspectives and, as a result, lead to more novel association and creativity outputs (Sung and Choi, 2012). Such links between teamwork and individual creativity have been tested empirically, for example, Sung et al. (2018) showed that practices of teamwork can activate cognitive and emotional states at both team and individual levels and subsequently lead to greater creativity outputs. This occurs when individuals, as members of one team, interact with each other and exchange their knowledge and ideas in the process of idea generation. However, the emergence of creativity outputs is not straightforward, and as suggested by Li et al. (2018) is facilitated by ‘creative stars’ – individuals who drive the creative process in their teams and encourage others to participate and share ideas. Li et al. (2018) showed that such ‘creative stars’ often act as inputs of creativity in their teams, and inputs – in form of new ideas and directions. Such inputs are essential for the creativity development of other team members, who use ideas of ‘creative stars’ and try to explore alternative perspectives. However, Li et al. (2018) also advised that the presence of ‘creative stars’ may not necessarily be desirable in teams, because such people appeared to learn less about creativity and acquire less knowledge about how teams

can be creative and generate creative solutions. As a direct result of this, 'creative stars' can even undermine team creativity outputs. Li et al. (2018) did not directly explore how team creativity emerges, what types of behaviours team members incorporate in practice (e.g., 'creative stars' vs non-'creative stars'), and how such behaviours contribute to their learning about creativity. In light of this, this research will consider these issues and examine the importance of teamwork in the process of creative development.

In addition to 'creative stars', previous research advises that the creativity enabling work environment at the team level requires effective team composition and team communication (Gilson and Shalley, 2004; Yoon et al., 2016). Team composition can be understood as "the configuration of member attributes in teams" (Levine and Moreland, 1990; cited in Somech and Drach-Zahavy, 2013, p. 686). In line with previous studies, heterogeneity of study participants is a key determinant of effective team composition, such as surface-level composition characteristics (e.g., demographic characteristics) and deep-level composition characteristics (e.g., personality factors and values) (Aggarwal and Woolleyb, 2019). For example, the research of Zhang et al. (2019) showed that heterogeneity of study participants as members of one team can increase knowledge sharing and the process of idea generation. In their study, knowledge sharing appeared to be more effective when there was a variety of personality traits of study participants and a match between them. In particular, it appeared that individuals with different levels of openness to experience (a facet of personality traits as discussed in Section 2.4.1) were more desirable for creativity and idea development than individuals with similar levels of openness to experience. Namely, individuals with high openness to experience could develop a great variety of ideas whilst individuals with low openness to experience could select the best ideas and develop high-quality creative solutions (Zhang et al., 2019). The issue of team heterogeneity will be addressed in this current research and participants with different composition characteristics (in terms of demographic characteristics and personality factors) will be placed in teams and participate in the process of creative development via the HRD intervention.

In addition to team composition, previous studies advise that it is important to ensure a fit between individuals working together on creativity as members of one team (Bam et al., 2019). This type of fit is known as a person-group fit; and it is defined as "team members' shared assessment of compatibility with each other and with the requirements of the task environment" (Kristof-Brown et al., 2014, p. 971). In previous studies, issues of person-group fit were addressed from the perspectives of individual skills, knowledge, values (Lu et al., 2014). For instance, Tuan (2020) found that high person-group fit can increase collaboration between individuals and outputs, and this occurs because employees view their teams as a proximal source of support and knowledge in the process of problem-solving. Furthermore, styles of effective leadership such as

charismatic leadership are important in this process, because such leaders are likely to be viewed as sources of knowledge and support along the CPS process (Tuan, 2020). Conversely, there is also low person-group fit; and this is associated with counterproductive work behaviours, such as knowledge hiding (Fong et al., 2018), negative cognitive states and behaviours (Sung et al., 2018; Wu and Chen, 2018; Connelly et al., 2019); Černe et al., 2014). Issues of fit between study participants will be considered in this research.

### 3.4.3 Capturing Organisational Characteristics and Forces

In previous studies, the role of organisational characteristics and forces for creativity has been examined through the use of the Amabile’s Componential model of creativity (Amabile et al., 1996) and the Ekvall’s Creative climate model (1996). Both approaches are designed to measure individual perceptions of organisational characteristics and environmental conditions for creativity. The analysis in Table 3.4 illustrates that both approaches share similarities and overlap in the themes (i.e., challenge, freedom, time).

**Table 3.4 An Overview of the Amabile’s and Ekvall’s Approaches**

Theme	The Amabile’s Approach (1996)	The Ekvall’s Approach (1996)
Time	Sufficient time for novel work	The amount of time for developing new ideas
Risks	Orientation for risk-taking and independence of status quo	Tolerance of uncertainties
Conflicts	Organisational political problems	Emotional and personal emotions
Rewards	Appraisal and recognition	Constructive and supportive feedback
Challenge	Individual commitment to work	Willingness to invest in work or the task
Debate	Individual inclinations to challenge each other in constructive ways	Clashes and debates between ideas and points of view
Freedom	A sense of autonomy	A sense of independence

Source: adapted from Moultrie and Young (2009)

The study of Moultrie and Young (2009) highlighted that both the Amabile’s and Ekvall’s approaches are complementary across a range of themes. Namely, they share a similar logic in terms of the constructs ‘Time’, ‘Challenge’, ‘Freedom’. However, their findings showed that the Ekvall’s approach explored such constructs in more general terms therefore its applicability to organisational creativity was unclear. In contrast to the Ekvall’s approach, the Amabile’s approach was found to be more nuanced and built around the detail, and, therefore, it can allow for deeper explorations and generalisations of the impact of the work climate on individual creativity. The authors highlighted that both approaches are strongly correlated, and both could be used for valid and reliable examinations of the work climate. This research will incorporate the Amabile’s approach since it is more applicable to the organisational context.

This choice for the Amabile’s approach in this study is further supported by the earlier study by Mathisen and Einarsen (2004) who explored the potential of this approach to examine perceptions of the climate for individual creativity. The authors examined a wide range of measurement instruments (the Creative Climate Questionnaire, the Team Climate Inventory, the KEYS, the Siegel Scale of Support for Innovation) and their potentials to capture perceptions of environments conducive to creativity. The authors found that of the available tools, the KEYS instrument (Amabile et al., 1996) based on the Amabile’s approach (1996) was the most effective measure to investigate perceptions of the work environment, namely – for creativity. These findings were confirmed in other psychometric studies that showed the Amabile’s approach to be the most reliable way to investigate perceptions of the creative climate (Hsu and Chen, 2017; Lin and Liu, 2016; Loewenberger, 2013). Table 3.5 illustrates the Amabile’s approach and elements in the creative climate.

**Table 3.5 The Key Aspects in the Amabile’s Approach**

Conceptual category	KEYS Environment Scale	Assessed Outcome of the Work
Encouragement of Creativity	Organisational Encouragement	Creativity
	Supervisory Encouragement	
	Work Group Supports	
Autonomy/ Freedom	Freedom	
Resources	Sufficient Resources	
Pressures	Challenging Work	
	Workload Pressure	
Organisational Impediments to Creativity	Organisational Impediments	

Source: adapted from Amabile et al. (1996)

The KEYS instrument investigates perceptions of creativity favourable and creativity inhibiting forces in the work environment. It is based on individual self-reports and explores psychological meanings of events or procedures associated with creativity in organisations (Amabile et al., 1996). Table 3.6 highlights the key scales of this instrument. Appreciation of these scales is important in this research since it adopts this instrument as part of the methodology, the data analysis and discussion (see Chapters Five-Seven). It uses the KEYS scales in the collection of individual perceptions of the creativity enabling work environment and implications for the HRD intervention.

**Table 3.6 The KEYS Scales**

Scale	Items	Description
<i>Stimulant Scale</i>		
Organisational Encouragement	15	An organisational culture that encourages creativity through a fair, constructive judgement of ideas, reward and recognition for creative



		work, mechanisms for developing new ideas, an active flow of ideas, and a shared vision of what the organisation is trying to do.
Supervisory Encouragement	11	A supervisor who serves as a good work model, sets goals appropriately, supports the group work, values individual contributions, and shows confidence in the group work.
Work Group Supports	8	A diversely skilled group work in which people communicate well, are open to new ideas, constructively challenge each other's work, trust and help each other, and feel committed to the work they are doing.
Sufficient Resources	6	Access to appropriate resources, including funds, materials, facilities, and information.
Challenging Work	5	A sense of having to work hard on challenging tasks and important projects.
Freedom	4	Freedom in deciding what work to do or how to do it; a sense of control over one's work.
<i>Obstacle Scale</i>		
Organisational Impediments	12	An organisational culture that impedes creativity through internal political problems, harsh criticism of new ideas, destructive internal competition, avoidance of risk, and an overemphasis on the status quo.
Workload Pressure	5	Extreme time pressures, unrealistic expectations for productivity, and distractions from creative work.
<i>Criterion Scale</i>		
Creativity	6	A creative organisation or unit, where a great deal of creativity is called for and where people believe they actually produce creative work.
Productivity	6	An efficient, effective, and productive organisation or unit.

Source: adapted from Amabile et al. (1996)

The underlying hypothesis of the KEYS instrument is that the stimulant organisational dimensions are rated higher by the research participants in highly creative organisations and lower – in less creative organisations. This hypothesis was confirmed in several studies that examined the relationship between perceived organisational climate and individual creativity. For instance, research by Lin and Liu (2016) found that five out of the six stimulant dimensions (i.e., organisational encouragement, supervisory encouragement, workgroup supports, sufficient resources and challenging work) built statistically strong connections with employee innovation. Another study by Loewenberger et al. (2014) showed that effecting perceptions of the work environment (across the stimulant scales) developed intrinsic motivation and resulted in more creative behaviours. Finally, the research by Hsu and Chen (2017) confirmed the link and added that employee psychological capital mediated the relationship between perceived organisational culture and creativity. These examples demonstrate that the relationship between perceptions of the organisational climate as measured by the KEYS instrument and creativity are evidenced.

The KEYS assessment was effective in both high and low creative organisations (Amabile et al., 1996), and there is limited evidence from intermediary organisations – such as hotel sector organisations which lie in between high and low creative businesses (for discussion – see Loewenberger, 2013). This research will add to this gap by employing the KEYS assessment in this study and exploring how it could capture creativity in the intermediary organisations (those between high and low creative organisations), such as the hotel sector organisations. The use of

this instrument will also allow for a more complete appreciation of factors in the creativity enabling work environment and implications on the delivery of the HRD intervention.

#### **3.4.4 Connecting HRD with the Creative Work Environment**

HRD creates perceptions of the creativity favourable work environment by organising and delivering interventions in individual, professional and organisational learning (Loewenberger, 2013). Creativity may emerge when there are formal policies designed to get employees from a variety of job roles and experiences and involve in creative opportunities (Loewenberger, 2016). Such links of the work environment with creativity were explored empirically, for example in research by Heffernan et al. (2016) who found that training and development along with other HR initiatives (such as employee resourcing, performance management and remuneration) created a work culture that was favourable to creativity. In their studies, the key characteristics of the creativity enabling work environment referred to the organisational infrastructure that provided opportunities for challenging work, communication, and continuous improvement. Other research by Lau (2016) supported this link and added that the creativity enabling work environment can also deliver a sense of the learning culture. In their study, the learning culture meant the opportunities (provided by the organisation) for employees to discover new solutions to everyday problems. Prompting the use of knowledge and its subsequent application within the organisations was thought to unleash the creative potential and increase employee motivation. Finally, the study by Tse et al. (2018) showed that creativity enabling work environment contained a variety of training programmes and organisational initiatives. The primary objective of such training was to develop individual mastery in being creative and enhance intrinsic motivation. In the current research, such connections of HRD with creativity will be explored in further detail. Namely by interviewing managers in the post-intervention period (see Section 5.3. in Chapter Five for discussion of research methodology), this study will explore the forces in the work environment that are the most supportive of their creativity.

Regarding the direct link between HRD and creativity, empirical research has been scarce. The available example is found in the study of Loewenberger et al. (2014) who examined the potential of HRD to support creative development. The authors applied the intervention research method within the public service organisations. In their study, the key objectives of HRD were to help managers overcome individual cognitive blocks and eliminate the organisational barriers to being creative. The study found that the creativity enabling work environment contained an aggregate of employees' perceptions, such as supervisory encouragements, supportive management, and challenging work. Awareness of the organisational requirement to be creative was the key variable to increase employee motivation and involve them in the creative intervention. The results of the study showed that one year after the intervention, a more

supportive work environment was delivered, and employees felt that they became more effective within their job roles due to creative skills. For example, they were able to produce more than 600 ideas, and of them 13 ideas have been endorsed within their organisations. However, the study raised several problem areas. Namely, the authors did not particularly explore the long-term effect of those interventions on individual creativity. Furthermore, the sample population was from lower-level management roles such as line officers, and the impact of those interventions on organisational performance was limited. The authors called for further research and an emphasis on managers from the middle- and high-level of organisational hierarchy; for instance, whether interventions at this level would lead to stronger creative outcomes. This study will add to this gap by involving middle- and high-level managers including HR Managers and General Managers in the HRD study (see Section 5.4.3 in Chapter Five) and exploring their potential to a) become more creative, b) exhibit their creativity some time after completing the HRD intervention.

There is scarce evidence on the direct connection between HRD and the creativity enabling work environment. A part of the reason is, what Waight (2005) said, “HRD professionals will be challenged to intertwine creativity and on-the-job training” (p. 155). This may be due to several reasons. First, previous research examined creativity within the lab settings such as classrooms (Kienitz et al., 2014; Meinel et al., 2018; Tang and Werner, 2017) therefore the evidence was of limited value to organisations. In those studies, training and development were delivered to a student population with the primary objective to investigate a change in their attitudes to own creativity rather than to explore how the HRD interventions can be operationalised within the organisational perspective. This issue was partially explained by Loewenberger (2014) who highlighted that research integrating creativity and HRD is challenging and requires comprehensive research design and planning.

Second, the studies of creativity within the lab setting dealt with the methodology that was of low relevance to businesses. For instance, Garavan et al. (2019) highlight that researchers are often challenged by the causality problem, such as how to get and deliver evidence on performance some time after training interventions. This research will deal with this problem by exploring creative development during the HRD intervention and three months after the intervention, particularly by interviewing research participants (see Section 5.3 in Chapter Five). Within real-life businesses, creativity must be continually monitored and evaluated, and the staff are provided with opportunities to apply their creative abilities within the workplace. However, the evidence of such empirical research is lacking to date. In addition to the causality problem, the challenge of the design and structure of HRD represents an issue. Even within the educational settings, the researchers reported short-term effects of training and development on creativity. An example of such studies is Meinel et al. (2018) and Perry and Karpova (2017) who reported a

decline in creativity scores right after or four weeks after the intervention. This research will contribute to these gaps, by exploring the challenge of the HRD intervention to enable creativity within the organisational perspective such as the hotel sector organisations and how it may affect the ability of managers to become more creative at work.

### 3.5 Chapter Summary

This chapter has highlighted that the creativity components at the level of the organisation have received significant attention in prior empirical research. Previous studies explored different organisational initiatives for creativity, such as a bundle of HRM practices or leadership styles; however, little is still known about how a single HRM practice such as HRD can influence creativity within the workplace. This influence occurs through learning opportunities provided by the HRD intervention and impacts on creativity at both individual (attitudes to creativity, surface traits, motivation) and organisational levels (the work environment). As a consequence, creativity favourable leadership styles and practices of teamwork may be essential. However, there has been limited empirical research connecting HRD with creativity at work. Therefore, there is a need for a greater understanding of the implications of HRD in the process of creative development. There is also a need for the design and structure of HRD within the organisational perspective. These issues will be explored further during the planning (Chapter Five) and empirical phases of this study (Chapter Six).

Chapter Four will next discuss the theoretical underpinning (the system models, the personality research) adopted in the current study. An initial conceptual framework will be presented. This will incorporate the main components of the theories and the themes from the literature discussed in Chapters Two and Three. A summary of key variables used in this research is summarised in Table 3.7.

**Table 3.7 Key Variables of Interest**

Level of Analysis	Variable of Interest	Connection with the Literature Review
Individual Creativity	Divergent thinking, convergent thinking, originality, fluency, novelty, usefulness, flexibility, elaboration	Section 2.3, Chapter 2
Individual Components	Basic materials: Stable traits (Openness to Experience, Conscientiousness, Extraversion, Neuroticism)	Section 2.4, Chapter 2
	Creativity-relevant processes: Surface traits (CSE)	Section 2.5, Chapter 2
	A Driver: Motivation (intrinsic and extrinsic motivation)	Section 2.6, Chapter 2
Organisational Components		
	A Driver: Creativity enabling work environment, leadership styles, practices of teamwork	Section 3.4, 3.4.1, 3.4.2, Chapter 3
HRD intervention	CPS and artefacts (the tools for creativity)	Section 3.3.1, Chapter 3

# **CHAPTER FOUR**

## **Towards a Conceptual Framework of the Current Study**

## 4.0 Introduction

This chapter will illuminate a conceptual framework of the current study, in consideration of the literature discussed in Chapters Two and Three and the research questions posed in Chapter One. This study incorporates a multi-theory approach, utilising the logic of the system models (the Componential Model of Creativity), personality research and HRD research. Following this, the literature on the system models of creativity will be discussed and borrow insights from personality and HRD research. This chapter will conclude with the presentation of a conceptual framework that will be explored and tested in the process of data collection.

## 4.1 Synthesising Approaches to Creativity at the Workplace

Various theoretical perspectives have been explored in understanding creativity and the process of creative development. A range of theories of creativity will be discussed throughout this chapter and in relation to their applicability to this research. The theories under consideration include the Four P's and its variations, the Componential Model of Creativity, and the Five A's. These theories are part of the systems models of creativity which assert that creativity requires certain components at individual and organisations levels (Scott, 2003). The systems models specifically focus on the components of individual and organisational creativity and explore how they interact with each other within the work setting. For example, by examining how individual creativity occurs due to the confluence of the components at individual and organisational levels, the system models allow for a dynamic comprehension of creativity (Jeong et al., 2017). Table 4.1 highlights the logic and the creativity components of the theories discussed throughout this chapter (Montuori, 2011).

**Table 4.1 An Overview of System-Based Models to Creativity**

Theory	Key system elements
The Four P's (Rhodes, 1961)	<ul style="list-style-type: none"> <li>• Product (a tangible form of an idea).</li> <li>• Person (personality traits, habits, attitudes, temperament, self-concept, value systems, behaviours).</li> <li>• Process (perception, motivation, thinking, learning, communicating).</li> <li>• Press (environmental influences on the person-context relationship).</li> </ul>
The 'Seven Seas' (The 7 C's) (Lubart, 2017)	<ul style="list-style-type: none"> <li>• Creators (cognitive, conative, emotional and environmental components).</li> <li>• Creating (an interaction between the divergent-exploratory and convergent-integrative modes of thinking).</li> <li>• Collaborations (teamwork, social contacts).</li> <li>• Contexts (the physical and social environments).</li> <li>• Creations (recognition of creative work: originality, novelty, aesthetic appeal, value).</li> <li>• Consumption.</li> <li>• Curricular (training and development).</li> </ul>
The Interactionalist Model (Woodman et al., 1993)	<ul style="list-style-type: none"> <li>• Individual characteristics (cognitive styles and abilities, personality, intrinsic motivation, personality, knowledge).</li> </ul>

	<ul style="list-style-type: none"> <li>• Group characteristics (cohesiveness, norms, diversity, roles, tasks, problem-solving approaches).</li> <li>• Organisational characteristics (organisational culture, resources, strategy, technology, structure).</li> </ul>
The Componential Model of Creativity (Amabile et al., 1996)	<ul style="list-style-type: none"> <li>• Domain-relevant knowledge (factual knowledge, special talents, technical skills).</li> <li>• Creativity-relevant skills (cognitive-perceptual styles, personality traits and characteristics, and application of heuristics for exploring new cognitive pathways).</li> <li>• Motivation (intrinsic and extrinsic).</li> </ul>
The Five A's (Glăveanu, 2013)	<ul style="list-style-type: none"> <li>• Actor (socialised human beings shaped by sociocultural contexts).</li> <li>• Audience (the social form of the environment, the dialogue between stakeholders contributing to the creation as co-creators, collaborators or evaluators).</li> <li>• Action (an interplay between the controversial but complementary facets of acts of creating, the action-perception loops, for example, cognitive and behavioural processes).</li> <li>• Artefact (an emphasis on the sociocultural nature of products of creativity, the cumulative way of creation involving interactions within societies and groups).</li> <li>• Affordance (the material form of the environment to facilitate acts of creating).</li> </ul>

Source: compiled by the author

Table 4.1 highlights the essential components of creativity (according to the theorists of the systems models). While such components are given different names and labels, closer examination reveals that they all share a similar underpinning logic, namely that creativity requires individuals (and their knowledge, skills and abilities) and the organisational context. Such componential conceptualisations of creativity are important in the issue of creative development, as highlighted by Csikszentmihalyi (1996), “it is easier to enhance creativity by changing conditions in the environment than by trying to make people think more creatively” (p. 31). The following sections will explore the most widespread theories of creativity and their potential for the current research.

#### *4P's Theory*

Starting with the 4P's theory, it is a well-established and empirically tested theory designed to explore the issue of creativity within the organisational context (see Section 2.1 in Chapter 2). Consistent with the logic of Mel Rhodes, the founder of this theory, creativity requires four key components known as Person, Product, Process, and Press. The '*person*' is a central element in the model; at this level, psychological, behavioural, and cognitive pathways are usually explored in order to understand the nature of creative thinking. The '*product*' relates to a tangible form of an idea that emerges as a result of thinking processes. The '*process*' deals with motivation, learning and thinking. This component is similar to the logic of the CPS model (full detail in Section 3.3.1 in Chapter Three) and asserts that creative thinking can be trained by completing

the stages of creative development. The '*press*' refers to the external environment and examines its role in the process of creative development. '*Press*' highlights the dual relationships between the environment and the person; namely, how the person is positioned within the work environment and responds to the organisational requirements for being creative at work.

The key aspect of the 4P's and a range of lower-level creativity theories underpinned by the logic of the 4P's (such as illustrated in Table 4.1) is the notice that creativity requires interaction between its components. This is also known as the interactionalist approach to creativity (Woodman et al., 1993). The interactionalist approach means that creativity, as a trainable skill that requires certain components of creativity at individual and organisational levels (see Chapters Two and Three), should be examined from the individual-in-its-organisation perspective. In other words, when the creativity components are dynamically and interdependently explored, both individually and in relation to each other, they lead to higher creative outcomes. These views have been widespread in previous studies (Fürst and Grin, 2018; Tang and Werner, 2017; Wechsler et al., 2018), however recent advancements in personality research challenged these perspectives and argued that the interactionalist perspective was not sufficient to fully embrace creativity. In their study on blind spots in creativity research, Glăveanu and Kaufman (2019) highlighted that the systems models oversimplified the approach to creativity and offered an individualistic and disjointed method to investigate creativity. Furthermore, the authors argued that 4P's researchers encouraged segmentation of the creativity components into individual elements and exploring them in isolation rather than in a dynamic combination. Examples of such studies include Coelho et al. (2018) or Jaremczuk and Kaliszczak (2015) who sought to explore how combinations of different creativity components may lead to higher creativity. Hence, a more careful selection of creativity theories and their application within organisational studies has been called for (Glăveanu and Kaufman, 2019)

Another area of criticism relates to the component of '*Press*' and its incompleteness to fully encapsulate the interactionalist perspective. Glăveanu and Kaufman (2019) highlighted that this component is limited in its scope, in that it ignores the socio-cultural forces in the work environment and their impact on creativity. Indeed, the scope of prior research has been on several characteristics of the environment, such as teamwork and managerial or supervisory encouragement, rather than an array of elements including the socio-cultural and physical forces (Williams and Foti, 2011; Tse et al., 2018; Zare and Flinchbaugh, 2019). Hence, the need for a more sophisticated theoretical underpinning has been called for to fully capture the emergence of creativity (Glăveanu and Kaufman, 2019).



### *5A's Model*

Because this research aims to examine an array of forces in the HRD intervention and the work environment (RQ2, RQ3) and their influence on individual creativity, views on the social and physical forces in the work environment are relevant and deserve consideration. These views are reflected in the work of Glăveanu (2013) who proposed a new epistemological position for creativity in response to limitations of the 4P's model. The approach by Glăveanu (2013) is known as the 5A's model; it highlights that creativity requires the five creativity components and interaction between them. These components of creativity are defined as Actors, Audiences, Affordances, Actions, and Artefacts, and they emerge in a specific socio-cultural context. The interactionalist perspective is emphasised in this model, particularly the creativity components are viewed as elements of the dynamic and integrated work environment. In the 5A's model, considerations of the environment are more succinct, for example, they include psychological, cultural and social forces as well as the physical and material objects (known as artefacts). Consistent with this logic, the physical or material objects act as resources in the work environment and aid creative thinking.

The key point about the 5A's model is its claim that creativity can only be understood within the context and in consideration of social and material worlds. Hence, as highlighted by Glăveanu (2013) the key difference of the 5A's from the 4P's is its over-emphasis on the environment and the flexibility of the creativity components within boundaries of creative activity. The developmental character of creativity is highlighted in the 5A's model; namely, creative development occurs when the creativity components are embedded and totally integrated into the creative process. Such views over the developmental nature of creativity were later confirmed by Sternberg (2018) who pointed out that an array of influences in the work environment (including the socio-cultural and physical forces) reinforced a creative activity and was likely to increase creative outputs. Hence, there is a potential of Glăveanu's 5A's model, specifically the views on the work environment to deliver a more nuanced and complex examination of creativity within the workplace. In particular, studies into the role of artefacts and their role in facilitating creative experiences, have been called for such as how the artefacts can be turned into resources for creative activities. This research will address this call by involving the artefacts in the design and delivery of creative experiences for employees, as part of the HRD intervention.

However, there are some issues with the 5A's model, and they are acknowledged in this research. For example, the fact that the 5A's remains conceptual and lacks empirical testing raises conceptual and methodological concerns. For example, Sparrow et al. (2016) highlighted that the 5A's model is complex and methodologically challenging when exploring creativity within a single study therefore selection of an appropriate methodological framework may be challenging to the

researcher. Furthermore, the development of individual creativity from lower to higher levels (see Section 2.3. in Chapter Two) is not yet conceptualised by the 5A's model. Hence, it is not clear how to organise creative development within the workplace and in respect of the socio-cultural and physical forces and the artefacts. This research will aim to contribute to this gap by examining how an HRD intervention can enable creativity at work and lead to higher levels of creativity, paying particular attention to the artefacts and characteristics of the work environment (RQ2 and RQ3).

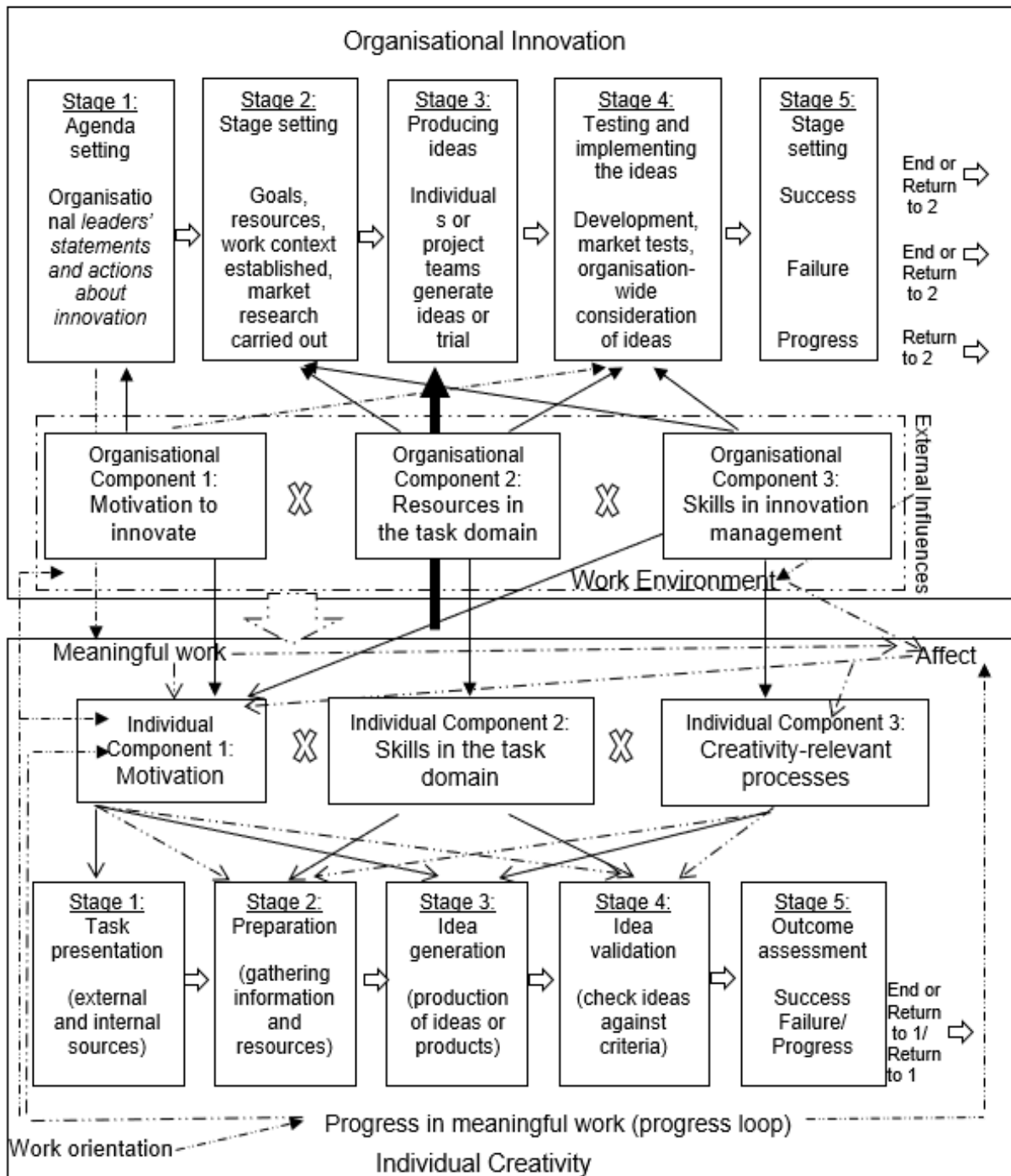
In summary, this section examined the systems models of creativity. As noted above these models apply a similar logic, namely – the interactionist approach on the relationship between the creativity components at the individual and organisational levels. Recent critics of the 4P's highlighted the need for a more rigorous approach to creativity. They also reinforced the need for consideration of a broader spectrum of contextual factors, such as socio-cultural forces, physical or material objects, and their role in creativity. In this research, the conceptual framework will consider the established theories of creativity and incorporate the new advancements in creativity research, i.e., the role of artefacts in the development of creativity. In the next section, the proposed conceptual model is discussed and illustrated.

## **4.2 Conceptualising Creativity in the Organisational Context**

This thesis will incorporate a multi-theoretical perspective, employing ideas from the systems-based models, personality research (as discussed in Chapter Two) and HRD research (as discussed in Chapter Three), to investigate the role of HRD as an enabler of creativity. From the systems-based models, insights from the Componential Model of Creativity (Amabile et al., 1996) are utilised. As discussed in Chapters Two and Three, this model has been the most useful in previous creativity research as it explores the components of creativity in precise categories at the individual and organisational levels. The key components of this model are discussed in Chapters Two and Three, namely, they include basic materials, creativity-relevant processes and a driver. The following section encapsulates key considerations around the development of the initial conceptual framework, they are discussed in relation to the research questions.

### **General Considerations: What is Known**

Figure 4.1 illustrates the original version of the Componential Model of Creativity. As can be seen from this figure, the original Componential Model of Creativity has very complex relationships between the components of creativity at the individual and organisational levels. The dashed arrows show more recent additions to the Componential Model of Creativity by Amabile and Pratt (2016). For those engaging in empirical research, this also evokes degrees of confusion with no guidance offered as to how to address and investigate the creative process within a single study.



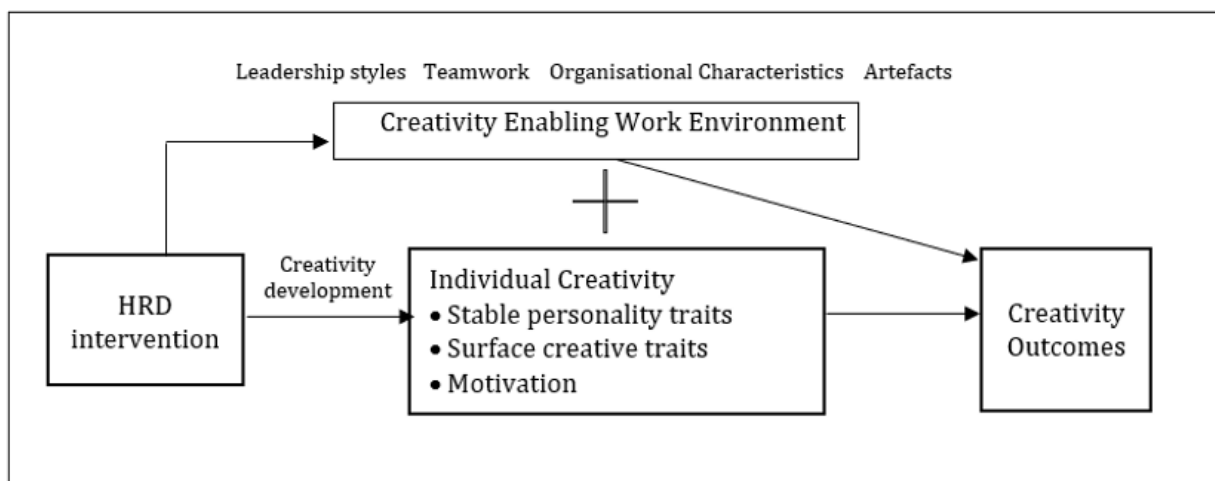
**Figure 4.1 The original (dynamic) Componential Model of Creativity**

Source: Amabile and Pratt (2016)

### **Towards the Initial Conceptual Framework of the Current Research**

In response to this degree of confusion, the current research offers a simple view on creativity, which illustrates the key forces behind the process of creative development (see Figure 4.2). This conceptual framework incorporates the logic of the Componential Model of Creativity,

personality research (as discussed in Section 2.3 in Chapter Two) and HRD research (as discussed in Section 3.3 in Chapter Three). This research implies that HRD intervention has an essential role in the simplified model, and it has the capacity to initiate and encourage the process of creative development. This is done by influencing the components of creativity at both the individual and organisational levels via the HRD intervention (Loewenberger, 2013; Meinel et al., 2018; Mumford et al., 2012). The process of creative development is facilitated by the process of CPS (for discussion see Section 3.3.1 in Chapter Three); namely, it creates perceptions of the creativity enabling work environment and initiates cognitive behaviours and processes associated with creativity at the individual level (Esch et al., 2016; Joo et al., 2013; Loewenberger, 2013). As discussed in Chapter Two, examples of cognitive behaviours and processes relate to a combination of divergent and convergent thinking, ideational behaviour and risk-taking. A more detailed discussion of the initial conceptual framework is found below and presented against the research questions of this study.



**Figure 4.2 The Conceptual Framework of This Study**

Source: compiled by the author

**RQ1: How does the HRD intervention influence the ability of managers to perform more creatively at work?**

In the initial conceptual framework, insights from the creativity research are represented through the creativity components at the individual and organisational levels, i.e., basic materials, creativity-relevant processes, and a driver. At the organisational level, basic materials are envisioned as individuals in organisations who participate in the HRD intervention and develop creativity skills, knowledge, and abilities; creativity-relevant practices – available initiatives and practices in training and development in the organisation; and a driver – the creativity enabling

work environment including effective leadership styles, organisational characteristics, practices of teamwork, and the artefacts (for discussion see Section 3.1 in Chapter Three). Here, the HRD intervention is viewed as a function and a direct responsibility of the HRM department which seeks to deliver the creativity enabling work environment. At the individual level, basic materials are viewed as stable personality traits, creativity-relevant processes – surface traits, and a driver – individual motivation (see Section 2.3 in Chapter Two). At this level, the HRD intervention connects to creativity through the process of creative development, and it strives to initiate creativity-relevant cognitive processes and behaviours (through its influence on stable and surface traits as discussed in Sections 2.4 and 2.5 in Chapter Two).

One of the important considerations of creativity reflected in the initial conceptual framework (Figure 4.2) is the interactionist perspective on the creativity components at individual and organisational levels in the process of creative development (as shown by the sign '+' in Figure 4.2). Consistent with the logic of the Componential Model of Creativity, the '*process*' of creative development occurs when the creativity components interact with each other and with the context (Amabile and Pratt, 2016). For example, creative development occurs when the three components at the individual level of creativity respond to contextual influences, i.e., the process of creative development via the HRD intervention (Karwowski, 2014). The process of development can also be facilitated due to the alignment of the creativity components at the individual level, such as an interaction of 'motivation' (Herrmann and Felfe, 2013), 'surface traits' (Hartley et al., 2016; Sung et al., 2018), and 'stable traits' (Baer, 2015). However, there is a limited understanding of how the interactionist approach at the organisational level occurs and can support the development of creativity. This research will address these issues by exploring the creativity components at the individual and organisational level as a whole and through the influence of the HRD intervention on the ability of study participants to learn and perform more creatively at work. This will involve explorations into how the creativity components at each level respond to the external influences such as the process of creative development via the HRD intervention. Such complex investigation of the creativity components represents a novel and original way to examine the issue of creative development at work.

**RQ2: What factors in the HRD intervention have the most positive impact on employee creativity?**

In the initial conceptual framework, insights of personality research and HRD research are incorporated, and they relate to the process of creative development, perceptions of the creativity enabling work environment, and creativity outcomes. The process of creative development is encapsulated through the process of learning and training, which occurs by engaging study participants in the HRD intervention and guiding them through the stages of CPS (as discussed in

Section 3.3.1 in Chapter Three). This assumption is supported by the research by Joo et al. (2013) who point out HRD interventions associated with learning, training and development can promote a sense of creative personality and trigger creative efforts. In this research, delivery of the HRD intervention is supported by forces in the creativity enabling work environment, including leadership styles, practices of teamwork support, the artefacts, and organisational characteristics.

The incorporation of CPS in the HRD intervention is reinforced by limitations of the original Componential Model of Creativity (Figure 4.1). The original model illustrates the stages of creative development and their links with the creativity components. Namely, it asserts that the process of creative development represents a cumulative learning circle and involves stages of development and metacognition (Isaksen, 2020). In line with this model, the stages of development include task presentation, preparation, idea generation, idea validation, and outcome assessment. However, research by Loewenberger (2013) and Puccio et al. (2006) showed that creative development only relates to the stage of idea generation rather than the whole creative journey. Therefore, the cumulative effect for the process of creative development may not be relevant. Hence, this research will address this limitation by incorporating the model of CPS in developing the idea generation capacity and facilitating learning about creativity within the workplace (full discussion in Section 3.31 in Chapter Three).

### **RQ3: What forces in the work environment support the process of creative development?**

Issues around creative development will be examined as the key outputs of the initial conceptual model. This process of creative development is examined in relation to the factors in the HRD intervention and forces in the work environment which aim to increase the components of creativity at individual and organisational levels. At the individual level, developing creativity is likely to lead to extra effort in creativity (see Section 2.6 in Chapter Two), and this process is accompanied by a change in stable and surface traits and motivation. At the organisational level, the process of creative development through the HRD intervention is likely to influence the work environment and emphasise the priority of creativity to organisations (see Section 3.4 in Chapter Three). In a work environment when creativity is prioritised and supported by the HRD intervention, managers are likely to feel support for creativity in their work environment and trigger their motivation and creative outcomes (Shin et al., 2018; Shipton et al., 2017).

In addition to creativity outputs, the initial conceptual model acknowledges more complex links between the work environment and creative development. In line with the recent developments to the original Componential Model of Creativity (Figure 4.1), a dual influence of the creativity components at the organisational level is considered (Amabile and Pratt, 2016). First, these components may be able to create a work environment that favours creativity. In

particular, they may be key to communicating the importance of employee creativity to organisations. Second, through the work environment, the creativity components at the organisational level could develop individual motivation and interest in creativity (i.e., by providing opportunities for managers to exhibit creativity) and facilitate the process of creative development. In this research, the dual influence of the creativity components will be considered through the lens of work meaningfulness (for discussion see Section 2.6 in Chapter Two) (Pratt et al., 2013). Particularly, the HRD intervention will be central in the development of the work environment which is favourable to creativity. Furthermore, the HRD intervention will allow managers to acquire their own experiences of creativity which, in turn, may result in stronger interest and willingness to practice their creative behaviours at work.

In designing and developing the conceptual framework for the current research, key limitations of the Componential Model of Creativity (Amabile et al., 1996) are considered and addressed. The largest limitation is the complexity of the model resulting in its limited empirical application. As a result, the potential of this model to empirically explore creativity within the organisational setting is not yet known. In addition to the methodological issues, Glăveanu and Kaufman (2019) highlight that the Componential Model of Creativity ignores a variety of environmental factors, i.e., including social and physical, which are critical to creative work. This view was earlier highlighted by Sparrow et al. (2016) who argued that the influence on the creativity components at both individual and organisational level requires a range of contextual factors. In this current research, concerns by Sparrow et al. (2016) and Glăveanu and Kaufman (2019) will be addressed by delivering a more inclusive approach to the challenge of creative development. Namely, the artefacts (from the 5A's) will be employed in this research and examined in their potential to develop a creativity enabling work environment. Such artefacts will relate to the material resources in the work environment which facilitate planning and delivery of the HRD intervention. An example of such resources will be hands-on objects in the workplace such as papers, markers and flip charts.

### **4.3 Chapter Summary**

This chapter has discussed the theoretical underpinning of the current research. Several theoretical lenses were discussed, and it has been proposed that work in the fields of creativity (the Componential Model of Creativity and the 5A's), personality and HRD have potential value as theoretical lenses through which to explore the research aim and objectives outlined in Chapter One. The key considerations of the chosen theoretical lenses have been included in the conceptual framework of this study. This framework will guide the process of data collection and analysis with the design of the empirical study outlined in the following chapter.

# **CHAPTER FIVE**

## **Methodology and Contextual Background of This Research**



## 5.0 Introduction

The purpose of this chapter is to introduce and discuss the methodological approach of this work and the contextual background of the selected organisations. This is done in consideration of the initial conceptual framework of this study (see Figure 4.2). The chapter begins with an explanation of the possible research philosophies and justifies the chosen approach. Then, the research methodology is explained, and details of the selected research strategy and the methods employed are outlined. Afterwards, the pilot study and the main study are discussed as well as the methods of data analysis. Finally, the ethics of the current research is considered and explained.

## 5.1 Philosophy of This Study

Research philosophy, or research paradigm refers to assumptions about how a researcher views the world (Crotty, 1998). The assumptions upon the nature of reality drive the choice of the research strategy and methods (Greener, 2008; Saunders et al., 2016). According to Saunders et al. (2016), there are three ways to encapsulate research philosophy defined as ontology, epistemology, and axiology. Each of these philosophical stances is discussed in turn (see Table 5.1).

**Table 5.1 A Comparative Analysis of Research Paradigms**

Criterion	Research Paradigm				
	Positivism	Critical realism	Interpretivism	Post-modernism	Pragmatism
<b>Ontology</b>	Reality is single and objective	Objective reality. It is independent of the researcher (realism) but socially conditioned (critical realism)	Reality is subjective; there are multiple, constructed realities	Radically subjective and constructed	Reality is multiple and constructed. Explanations producing outcomes are chosen
<b>Epistemology</b>	An objective point of view. Generalisations are based on credible data and facts	An objective point of view. Focus on explanations within the context	Subjective meanings and details explain the reality	Research is driven by theory/hypotheses. Findings are objectively 'true'	Both objective and subjective points of view
<b>Axiology</b>	Research is undertaken in a value-free way	Research is value-laden	Research is value bound	Research is value bound but may be controlled	Values are crucial in interpreting results
<b>Research methods</b>	Quantitative	Several methods to explore the subject	Qualitative	A range of methods, mainly qualitative	A variety of methods

Source: adapted from Saunders et al. (2016)

Ontology relates to interpretations of the nature of reality by the researcher (O’Gorman et al., 2014), and there are the two extremities of the continuum to explore the nature of reality, such as either objective or subjective (Saunders et al., 2016). Objectivism implies that the world is real and structured, and it is external to and independent of social actors (Jonassen, 1991). Subjectivism advises that there could be several subjective realities, and the nature of reality is understood through the eyes of research participants, who construct their realities in the process of interpretation of their own experiences of the external world (Greener, 2008). In the interim, an array of transitional ontological positions exists.

The second of the philosophical assumptions is a certain epistemological position, understood as the nature of knowledge, its foundations and presuppositions (O’Gorman et al., 2014), or “how we know what we know” (Crotty, 1998, p.8). There are several positions to explore the nature of reality, namely positivism, interpretivism and pragmatism (Guba and Lincoln, 1994). Positivism means that the reality is external to the researcher, and the knowledge is of significance if it is based “on the set of accepted beliefs of a social group. The authority of truth is the authority of society” (Dawson, 1981, p. 414). Hence, the nature of the reality is measured through the methods of quantitative research such as surveys and experiments (Dawson, 1981). In general, a positivist researcher starts with research hypotheses and seeks to prove (or reject) these hypotheses by exploring the facts which cannot change. Positivism is inevitable in situations that involve a large sample of research subjects and, therefore, may be less effective to attach meanings to the findings and explore the process which emerges through action (Saunders et al., 2016). In contrast, interpretivists consider reality as socially constructed, and the meaning is given by the research subjects (Remenyi et al., 1998). Reality is based on individual experiences, reflections and opinions (Lincoln and Guba, 1985). Interpretations of the reality are grounded on the close relationship between “the researcher and the subjects of an investigation who are ... interactively linked so that the findings are literally created as the investigation proceeds” (Lincoln and Guba, 1985, p. 207). Hence, the researchers use personal interpretative processes to explore the nature of the reality rather than confirming causal relationships using statistical analysis (Remenyi et al., 1998).

Pragmatism holds that there could be single or multiple realities for empirical research (Creswell and Clark Plano, 2017), and the reality could only be understood through human experience (Goles and Hirschheim, 2000; Tashakkori and Teddlie, 2008). Action and transformation are the underlying concepts in the pragmatism philosophy (Pansiri, 2005). Hence, the reality is created by human experiences (action and transformation) and co-constructed with humans who “create knowledge in the personal interests of change and improvement” (Kaushik and Walsh, 2019, p. 5). The nature of the reality is explored through an array of research methods and techniques which are deemed to be best suited by the researcher (Onwuegbuzie and Leech,

2005). Hence, pragmatist researchers believe that the methodologies from positivism and interpretivism assumptions can be integrated within a research study (Onwuegbuzie and Leech, 2005) and used to inform and corroborate the findings (Bryman, 2006).

The third of the philosophical assumptions is axiology (Saunders et al., 2016) which examines judgements about values and the roles of the researcher across the stages of the research process. The research can be value-laden or value-free. The subjectivist perspective implies that the research value is bound, meaning values are essential elements of the research process (Heron, 1996). In line with this view, value bound research entails active involvement of the researcher in what is being researched, and the nature of reality is explained by how the researcher interprets the findings. In contrast, value-free research holds that the researcher is independent of the values and interprets the nature of the reality based on the available findings from the quantitative analysis.

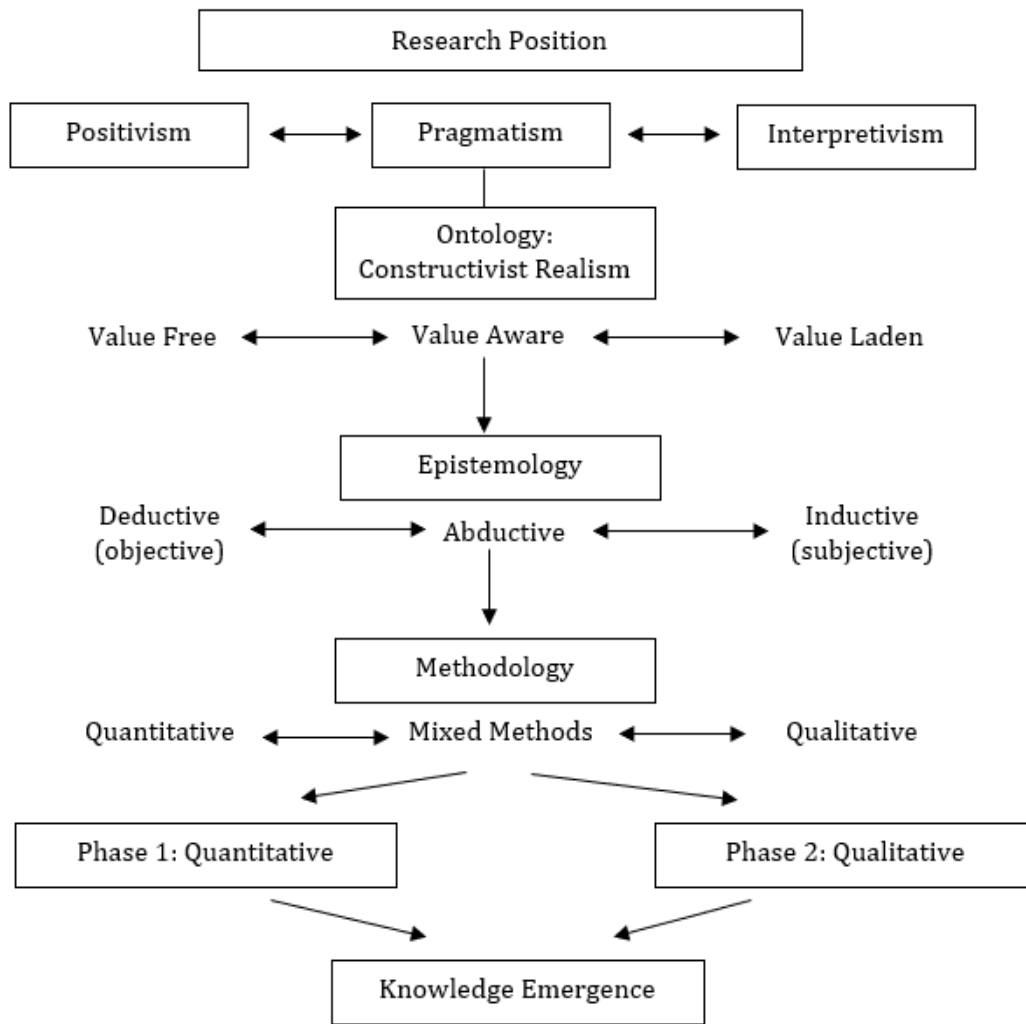
### **5.1.1 Application of Pragmatism Philosophy in This Research**

The main aim of this research is to investigate the role of HRD as an enabler of employee creativity. This phenomenon can be viewed as objective if the researcher seeks to examine the magnitude and significance of a change, for example, the extent to which the HRD intervention increases individual attitudes to creativity and leads to creative development at work. Previous research (Agarwal and Farndale, 2017; Guan and Huan, 2019; Heffernan et al., 2016; Ismail et al., 2017; Kianto et al., 2017) that explored the relationship between HR practices and creativity as a research objective, investigated the phenomenon using a linear and top-down approach. They used a bundle of HR practices or a single practice and anticipated whether they could lead to higher creativity. Consequently, such studies posited 'what' HR practices influence 'what and which' components of creativity and 'what' factors can moderate or mediate this relationship. As advised by Garavan et al. (2019), such studies are methodologically conservative and articulate evident results and, therefore, do not provide sufficient evidence to explain 'how' HRM leads to this effect. Similar limitations were acknowledged by authors employing the subjective approach (Ehlen et al., 2014; Mihret Dessie and Shumetie Ademe, 2017) as they were valuable to explain the meaning of HR practices for creativity rather than the nature of creative development and its impact on individual creativity.

The literature on creative development (McCormack and Titchen, 2014; Jónsdóttir 2017; Molineux, 2018; Isaksen, 2020) posits that such creative development requires action. The nature of individual behaviours is based on past experiences (Kaushik and Walsh, 2019), and development occurs when individuals are involved in new experiences (action) and through new experiences and action change the way that they view personal creativity and behaviour (Morgan, 2007). Furthermore, perceptions of the process of creative development are a primary source

that creates experiences and encourages creativity (Isaksen, 2020). Therefore, to explore the role of HRD in enabling employee creativity at work, the researcher would like to know initial individual attitudes to own creativity, how and why the action occurs, what experiences with creativity the action creates, how these experiences influence attitudes to creativity and the way the individuals behave over time. This is considered to be an adoption of the pragmatic stance, namely it involves the positivist stance (attitudes to own creativity prior to the action and in the post-action period) and the interpretivist stance (the nature of action to create experiences with creativity, the meaning of the action for long-term creative development at work). In line with the pragmatic stance, this research integrates several research methods which derive from the positivist and interpretivist stances such as self-assessment, participant observations, and interviews (Leech and Onwuegbuzie, 2005).

For the current research that adopts the pragmatic stance (Figure 5.1), several assumptions are recognised. First, ontologically this research adopts a constructive realist perspective which implies that the richness of findings is facilitated by the empathic approach to the research agenda (Cupchik, 2001). The individual employee will be the primary source of analysis and data collection who will be involved in constructing their own realities through engagement in the action for creative development (Jonassen, 1991). This will be achieved by involving the research participants in the HRD intervention. Second, epistemologically this research is based on the abductive approach which seeks to create both data and theory (Kaushik and Walsh, 2019; Morgan, 2007; Tschimmel, 2012). Considerations of individual employees for data collection will inevitably lead to multiply constructed realities however “inquiry into these multiple realities will inevitably diverge (each inquiry raises more questions than answers” (Lincoln and Guba, 1985, p. 37). This means that multiple truths may emerge which could be “socially determined or conditioned in any way” (Dawson, 1981, p. 418). Hence, a straightforward answer to the research questions posed may not be achieved. Third, the nature of the reality will be explored within the natural settings since “realities are wholes that cannot be understood in isolation from their contexts” (Lincoln and Guba, 1985, p. 39). Finally, the researcher as the primary means of data collection will be inseparable from the research process therefore this research is highly value aware. This means that the researcher is aware of individual experiences and backgrounds associated with developments in creative behaviours and actions are taken to minimise risks of bias. Hence, the roles of values and ethics will be prioritised when drawing conclusions from findings.



**Figure 5.1 Research Position of This Study Based on the Pragmatism Philosophy**

Source: adapted from Saunders et al. (2016)

## 5.2 Research Design: Multiple Case Study Research

A research design is understood as a blueprint of a research project (Yin, 2017). The pragmatism stance offers flexibility to the researcher in selecting the research design which is deemed to be appropriate to explore the research agenda (Saunders et al., 2016). However, justifications of the research design should be linked to the five key areas of concern (Creswell and Clark Plano, 2007), namely the research questions, research assumptions, the units of analysis, the logic connecting data to propositions, and criteria for interpreting findings of the study. Yin (2017) recommends that five research designs (narrative research, ethnography, phenomenology, grounded theory and case study) could be suitable for the research to explore the research questions of 'how' (see Section 1.2 in Chapter One). However, of them only case study focuses on the in-depth description and analysis of the phenomenon which occurs in one case or several cases. Since this research seeks to develop a deep understanding of the role of HRD for employee

creativity at work, the case study research design is considered to be appropriate to this research. Previous research (De Leede and Looise, 2005; Fu et al., 2015; Fujii, 2016; McCamley and Gilmore, 2017) adopting the case-study research design for creativity recommended the use of case studies to provide comprehensive and holistic investigations of the research problem and a more intense process of collection and analysis of the findings.

According to Yin (2017), the case study research approach has two underlying dimensions involving the number of cases and the units of analysis; there can be a single case-study or a multiple case-study approach. In general, a single case-study approach is employed to explain a unique case, whilst the multiple case-study approach seeks to generate a rich understanding of the research agenda by collecting the data from several cases. Hence, the findings emerging from multiple cases are more robust and compelling than a single case-study approach (Yin, 2017). Furthermore, multiple cases allow researchers to consider the role of context for the research agenda and, therefore, the findings from multiple cases cannot be generalised (Saunders et al., 2016; Yin, 2017). This limitation can be overcome by incorporating the replication logic in this study, meaning that the findings will be collected in similar research settings (such as from cases with similar underlying characteristics in terms of size, location, business activities) and the procedures for collecting and analysing the findings will be replicated in each case to generate the new knowledge. Henceforth, the multiple cases are preferable to a single case-study approach in explaining the role of HRD in enabling employee creativity at work.

To verify the suitability of the multiple case study design for this research, the five areas of concern are verified. The first area deals with clear and specific research questions. In this work, the three research questions are raised.

RQ1: How does the HRD intervention influence the ability of managers to perform more creatively at work?

RQ2: What factors in the HRD intervention have the most positive impact on employee creativity?

RQ3: What forces in the work environment support the process of creative development?

Second, research assumptions need to be formulated and reflect what should be examined within the scope of a study. In this research study, an example of such an assumption would be that the interaction of creativity components at both individual and organisational levels is facilitated by the HRD intervention and leads to higher creativity. Another example would be that the HRD intervention provokes an 'action' in the process of training, and through action it provides managers with new experiences and, in turn, leads to higher creativity.

Third, recognisable units of analysis need to be defined and developed, boundaries should be specified. As has been noted, the hotel sector organisations located in Northern Ireland represent 'cases' for this study, where information about the relevant creativity-relevant processes is collected and analysed. Within each case, individual managers are essential units of

analysis, specifically how they engage in the HRD intervention and learn to behave more creatively at work through their experiences with creativity.

Fourth, the logic connecting data to propositions must be developed. For example, evidence of increased attitudes to creativity post-intervention may logically be related to the assumption that the HRD intervention has a relationship with individual creativity.

The final requirement refers to establishing criteria for interpreting the findings of the study. This aspect is explored in the form of the proposed conceptual framework for creativity in organisations (see Section 4.2 in Chapter 4) which is underpinned by creativity research, personality research, and HRD research. At the individual level, the components of creativity are explored in terms of stable and surface traits and motivation (see Section 2.3 in Chapter Two). At the organisational level, the creativity components are discussed in relation to organisational basic materials in creativity (individuals who participate in the HRD intervention), creativity-relevant practices (available initiatives and practices in training and development), and a driver (the creativity enabling work environment including organisational characteristics, leadership styles, practices of teamwork, and the artefacts) (see Section 3.1 in Chapter Three). The issue of creative development is explored during the HRD intervention (participant observations) and in the post-intervention period (creative self-assessment, interviews).

Limitations of the multiple case study research design will be acknowledged and addressed in this research. The largest area of concern is related to the issue of research rigour in undertaking case study research. As noted by Yin (2017, p. 18), “too many times, a case study researcher has been sloppy, has not followed systematic procedures, or has allowed equivocal evidence to influence the direction of the findings and conclusions”. In this research, this limitation will be avoided by ensuring the validity and reliability of research undertakings. For example, the construct validity of this research will be ensured by appointing multiple sources of evidence, such as individual managers and practitioners from case organisations (HR/General Managers). The external validity of this research will be in the form of theoretical replication of the findings in several cases. The internal validity of the study will be ensured by adopting the principles of research triangulation (Denzin, 2012). This means that data will be collected from a variety of sources to generate a comprehensive examination of the problem at hand. Finally, the reliability of this research will be promoted by generating and adopting a study protocol (Yin, 2003). The study protocol will stand for a univocal programme of the HRD intervention which will be delivered and replicated across the cases to ensure rigorousness of the findings.

### **5.2.1 Selecting Cases**

Yin (2017) explains, when conducting multiple case study research, the researcher needs to ensure that every case is chosen for a specific reason and purpose and incorporated within the

study agenda. There are the three main criteria that need to be considered by the researcher when selecting the cases, namely: a) they should correspond to the research aim and objectives, b) they should provide diversity in terms of research context, c) they should offer good opportunities to explore the complexity of the research agenda. In this research, these guidelines are used in order to ensure that the replication of the study can be achieved.

One of the gaps in previous studies (Barczak et al., 2010; Hartley et al., 2016a; Hartley et al., 2016; Jónsdóttir, 2017; Tang and Werner, 2017; Zare and Flinchbaugh, 2019) is that the majority of existing research explores the issue of creative development amongst the student population, with a limited number of studies connected to the real organisational and industrial sectors including the hotel sector. Therefore, this research aims to investigate the role of HRD for employee creativity within the organisational perspective, and particularly in the hotel sector. Second, existing studies within HRM and employee creativity in the hotel sector (Hassi, 2019; Jaiswal and Dhar, 2017; Lowe, et al., 2012) are explored in large hotels that have a function of the HRM department. There is a scarcity of studies examining the challenge of employee creativity in small and medium-sized (SME) hotels, where the HRM function may be limited (Bamber et al., 2017). This section of the hotel sector is also likely to lack the HRD function for employee (creative) development, and such organisations rely on external providers for staff upskilling where an agenda of the external training providers may be unsuitable for the individual and organisational needs (Johnson et al., 2010; Golubovskaya et al., 2019) and, therefore, be of low relevance to employee creativity. Finally, this research is located in Northern Ireland – the region which is primarily represented by SMEs in the hotel sector who require creativity for the business outperformance but lack formal HR practices (McCamey and Gilmore, 2017) to support staff creative development. Hence, in this research SME hotels are considered to be suitable as case studies.

Fourteen organisations from the hotel industry located in Northern Ireland were initially identified. A sample of potential organisations was generated using the Financial Analysis Made Easy (FAME) database accessible through Ulster University Library, Northern Ireland Hotel Federation, and professional social media such as LinkedIn. The criteria for the selection of cases were incorporated, namely status of organisations, good practice exclusion, size of organisations. Adopting the selection criteria in this research seeks to applicability and replication of this research. For instance, only active organisations were included in the sample. Consistent with recommendations for the size of SMEs in HRM research, companies with at least 50 employees were considered for research (Lin and Liu, 2016). Laursen (2002) posits that organisations with more than 50 people are likely to exhibit formal HRM and the practices of (creative) development at work. This means that organisations with more than 50 employees would be likely to consider the HRD function for employee creative development and host this research by committing to the



research objectives. Of the fourteen-organisation sample size, four businesses agreed to participate in this current study. Following Stake's (2006) recommendations for the sample of multiple case-study research, the sample of four organisations is deemed to be sufficient for this study in order to collect in-depth evidence and explore the initial set of research propositions.

### **5.2.2 Research Access**

The ethical approval for this research was received by the researcher in January 2019. Fourteen HR/General Managers from the initial sample of case organisations were approached directly; the researcher sent an invitation email to HR/General Managers, explained the agenda of this study, and requested access to the work population (see Appendix Two for the letter). The researcher clearly explained the aims and objectives of the study as well as the role of the researcher as a facilitator of the HRD intervention in the process of employee creative development. After this initial approach, managers from three organisations got back to the researcher outlining an interest to participate in the research. However, contact with one of the three managers was lost. The remaining eleven organisations in the sample were not possible to reach, i.e., emails were not delivered, contact persons were no longer employed. Hence, the access strategy to case organisations was reconsidered and adjusted.

The revised strategy encouraged the researcher to contact the Northern Ireland Hotel Federation, the largest association of hotels across Northern Ireland, and ask a contact person to disseminate information about HRD interventions in creativity among the member organisations. The contact person sent emails to the member organisations on behalf of the researcher. The content of emails was identical to those sent at the initial stages of the access strategy. Emails were sent to the member organisations twice, i.e., as an initial invitation for participation in the research study and as a reminder to join the study. The researcher did not receive an expression of interest from case companies therefore the revised strategy did not prove effective.

The revised strategy through the Northern Ireland Hotel Federation (NIHF) unveiled a broader range of organisations to the researcher, for example, some organisations were not listed in the FAME database. Contact details of HR/General Managers were not specified on the website due to GDPR therefore the researcher had to reconsider the access strategy. For example, some contact details were found through professional social media (LinkedIn) and job portals (jobs.co.uk, nijobs.com, indeed.co.uk, facebook.com). In some cases, email letters were sent to the hotel reception and contained the phrase 'For the Attention of'. Due to the revised access strategy, a sample of potential organisations increased and equalled a total number of 54 organisations. Of them, eleven organisations responded to the researcher (20% response rate), with three organisations declining participation due to internal issues, i.e., high seasonality, business loadings. Eight organisations were interested to participate in the research study, however six of

them asked to postpone their enrolment until the less busy season (the autumn). During the workshop preparation stage, one of the remaining organisations declined participation in the study. Therefore, the revised access strategy helped the researcher to gain one more organisation.

Finally, another opportunity for the research study emerged as part of the professional module Manager Ambassador Programme at Ulster University which was delivered to managers of the biggest hotel chain in Northern Ireland. The hotel chain was representative of the seven smaller individual hotels, each employing less than 150 employees, and, therefore, the researcher decided to include the organisation in the sample. The timeframe and recruitment of the case organisations for this study are summarised in Table 5.2. The following section discusses the method which is incorporated in the multiple case study research approach.

**Table 5.2 Timeframe and Recruitment for Current Research**

2019					
January	February	March	April	May	June
		Accessing organisations from the FAME database			
			NIHF		
					Access through social media and Ulster Univ.

### 5.3 Research Methods and Instruments

The advantage of the pragmatic stance and the multiple case study approach is that evidence can be collected from several sources including quantitative and qualitative tools (Brierley, 2017; Tashakkori and Teddlie, 2008) in order to integrate the several streams of knowledge into convergent findings (Creswell and Clark Plano, 2017). The richness of the evidence which is collected from multiple sources helps to avoid biases in the data collection and analysis (Johnson et al., 2010) and increases the validity and reliability of the research design (Denzin, 2012). The main aim of this research is to explore the role of HRD in enabling employee creativity at work. Following the conceptual model in Chapter Four (Figure 4.2), understanding of the role of HRD in enabling employee creativity requires several sources of evidence: 1) how the process of creative development occurs during the HRD intervention; 2) the extent to which the HRD intervention influences perceptions of individual creativity; 3) the potential of the HRD intervention to lead to creativity outputs. Therefore, this research incorporates the mixed-method research approach to collect the data from several sources of evidence, such as participant observations (interpretivist), creative self-assessment (positivist), and interviews (interpretivist), increasing the richness of the findings.

In this study, the research methods are mixed in a way that the ontological and epistemological positions of the research methods do not resonate (Onwuegbuzie and Leech, 2005). Instead, they are employed to promote research triangulation, meaning that multiple research methods and sources of the data help to achieve the symmetry of the findings (Denzin, 2012). The mixed-methods clarify the nature and meaning of the findings, i.e., the quantitative results are collaborated and informed by the qualitative insights (Creswell and Clark Plano, 2017) and, in turn, provide extra knowledge about the research agenda. Second, the mixed methods enhance the complementarity of the research methods and the findings (Greene et al., 1989), for example, they ensure that the results that emerged from one method (participant observation, intervention) are served to clarify the results from the other method (self-assessment). This study incorporates the methods of participant observations, creative self-assessment, and interviews, in the belief that these methods will allow collecting the in-depth knowledge about the process of creative development and providing sufficient evidence regarding employee creative self-perceptions before, during and after their enrolment in the HRD intervention.

Leech and Onwuegbuzie (2009) suggest the three factors to be considered when selecting a type of mixed methods research, namely: the level of mixing, time, and emphasis. The level of mixing relates to the extent to which methods in the research is mixed, i.e., mixed to a degree (partially mixed) or fully mixed across all stages of a research process (Creswell and Clark Plano, 2017). Time dimensions refer to a sequence of research methods in the research study, such as at approximately the same point of time (concurrent) or one method emerges after the other method (sequential). Finally, an emphasis is made to a degree of priority of one research method in relation to the other, such as equal weight with respect to a problem at hand or one method has a higher priority over the other method (dominant) (Leech and Onwuegbuzie, 2009). In this research, a fully mixed sequential dominant status design is considered an appropriate kind of mixed methods approach. The quantitative (self-assessment) and qualitative methods (participant observation, interviews) are 1) mixed across the stages of data collection and analysis; 2) occur sequentially at data collection stage and are integrated at the stages of data analysis; 3) the methods of qualitative research (participant observation, interviews) are prioritised over the methods of quantitative research (self-assessment) as they allow for more nuanced investigations and extra meaning for the nature of creative development over time.

### **5.3.1 The HRD Intervention and the Idea of ‘Action’**

As highlighted earlier, ‘action’ is an essential characteristic of the HRD intervention for creativity development, and it is central to the pragmatic stance (Pansiri, 2005). As explained by Fendt and Kaminska-Labbé (2011), “Pragmatism considers confrontation with reality through actions as the principal source of doubt, which in turn feeds scientific curiosity and becomes the driving

force to inquire in order to settle that doubt” (p. 223). Hence, the idea of ‘action’ (through the HRD intervention) is incorporated into this research as a means of exploring the process of creative development, i.e., whether and how the HRD intervention initiates behavioural and cognitive processes that are associated with creativity and how it can influence the emergence of creative outputs.

Clark (1972) highlights that ‘action’ involves a collaboration between a researcher and study participants who together design field experiments and co-create experiences that contribute to business performance and research. Hence, the value of action is that it helps to contribute to an organisational issue (i.e., promote individual creativity at work) and generates scientific knowledge about the challenge of creativity at work (theories on creativity and HRD) (Fendt and Kaminska-Labbé, 2011). Furthermore, the action increases the quality of this current research and credibility of the findings by considering the real-life emergence of creativity through action (Tang and Werner, 2017) and, in turn, increasing the value of this research both to theory and practice through alignment between theory and practice. The idea of action through the HRD intervention is described in Table 5.3.

**Table 5.3 The Idea of ‘Action’ in the Design of This Research**

<b>Research method</b>	<b>Research tool</b>	<b>Type of data</b>
PHASE 1 – Diagnosing of value and importance of creativity to case organisations		
PHASE 2 – Fact-finding		
Quantitative data collection	Employee self-assessment	Numeric
Quantitative data analysis	Data screening Descriptive statistics and Frequencies	Numeric
Qualitative data collection	Employee self-assessment (Open-ended questions), Interview	Textual
Qualitative data analysis	Content analysis	Textual
PHASE 3/4 – Planning and acting (the HRD intervention)		
PHASE 5 – Evaluating action		
Quantitative data collection	Employee self-assessment	Numeric
Quantitative data analysis	Data screening Descriptive statistics and Frequencies	Numeric
Qualitative data collection	Employee self-assessment (Open-ended questions), Participant observation	Textual
Qualitative data analysis	Content analysis Coding and thematic analysis	Textual
Integration of the quantitative and qualitative findings	Interpretation and explanation of the quantitative and qualitative results	Discussion
PHASE 6 – Monitoring and revising action, taking second action step		
Qualitative data collection	Interview	Textual
Qualitative data analysis	Coding and thematic analysis Within-case and across-case theme development	Textual
Integration of the quantitative and qualitative findings	Interpretation and explanation of the quantitative and qualitative results	Discussion

Source: compiled by the author

Several limitations of the action, as an underpinning logic of the HRD intervention, have been recognised in the literature thus effort is made to reduce their implications on the current research. For example, the action element is often advised for big scale projects rather than small research studies. The former may refer to attempts to provoke a change in the society or develop the efficiency of the whole community, system, or organisation (Brannick and Coghlan, 2006). This research study may refer to a category of small-scale projects, thus the action is viewed as a framework for conducting research that suits specific methodological and research needs (Zhang et al., 2015). Hence, the logic of action in the HRD intervention will be considered relevant in the investigations of the creative process in practice and will be implemented in the form of collaboration between an academic (the researcher) and a practitioner (subjects of the research). Second, the results of action are case dependent and cannot be generalised to other cases or contexts (Siikaniemi, 2009). In this research, this limitation will however be considered an advantage of the study due to its focus on the practice-based perspective. This will benefit this work in form of new themes and phenomena emerged which could be tested in future studies using the objectivist and the subjectivist epistemologies.

### **5.3.2 Planning and Designing the HRD Intervention**

Mumford et al. (2001) argue that stages of planning and designing are important and help clarify the nature of the relationship between the researcher and study participants. A knowledge mobilisation strategy, understood as a type of management technique to support learning and a change, is required in order to plan, design and incorporate the action at work (Checkland, 1981). The key elements of a good research plan should involve a perceived real-life problem, a process for solving the problem, a group of people who are involved in problem-solving, and the actual intervention (Checkland, 2000). This research examines the role of HRD in enabling employee creativity in consideration of the organisational context. Furthermore, it focuses on the hotel sector in Northern Ireland, hence the process of creative development and the research plan should reflect the regional characteristics of the hotel industry and be of relevance to the case organisations. In Table 5.4, the four key elements of the research plan are illustrated and connected to the key objectives of this current study.

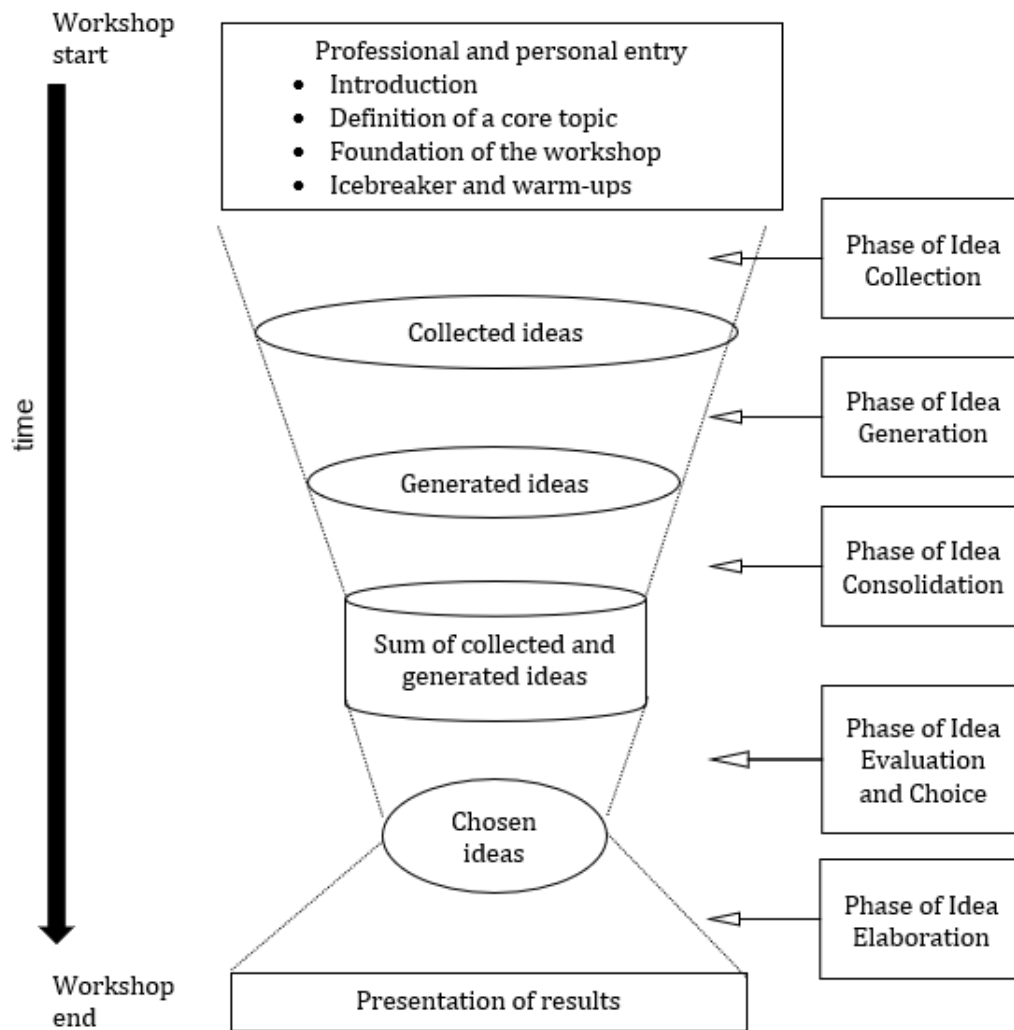
**Table 5.4 The Research Plan of the Current Research**

<b>Element</b>	<b>Meaning in this research</b>
A perceived real-life problem	A problem specific to each case study, i.e., a challenge for the HRD intervention/workshop
A process for creative problem-solving	A plan of the intervention based on the CPS learning strategy
A group of people	Participants of the HRD intervention who are nominated by each case organisation to participate in this research. The process of creative development occurs in groups with 3-4 participants each
The actual intervention	A creativity workshop in each case organisation involving creativity practices and techniques which initiate and encourage behaviours that are associated with creativity

Source: compiled by the author

In this research, a perceived real-life problem is specific to each case organisation and based on the practitioners' evaluation of the problem situation (Checkland et al., 2000). The problem is defined by practitioners from each case organisation, such as the HR / General Managers who are essential to facilitating access to the work population and ensuring the suitability of the real-life problem for the purpose of the HRD intervention.

The problem-solving process is conceptualised as the CPS framework (for discussion see Section 3.3.1 in Chapter Three). In this work, the stages of creative problem-solving are connected to the HRD intervention and organised in a way that explores the process of creative development. The evidence from the HRD intervention serves to examine the objectives of the current research, namely: 1) the process of creative development at work and its impact on cognitive and behavioural characteristics of creativity; 2) the impact of the HRD intervention on individual and organisational performance after employee enrolment in the intervention. Following recommendations by Isaksen (2020) and Sung and Choi (2012), the process of creative development will occur in teams/groups of three to four participants each – because work in teams can increase the quality of creative outputs and result in strong experiences with creativity which, in turn, can translate in individual creative development. In the process of the CPS, the work in teams can also increase cognitive and behavioural processes that are associated with creativity such as thinking styles, ideational behaviour and risk-taking (for further discussion see Section 2.2 and 2.3 in Chapter Two). Hence, the application of teams in the HRD intervention can provide this research with extra meaning regarding the nature of creative development. Finally, the actual intervention is based on the framework for creative interventions (Brem, 2019), and this framework benefits this research with clear steps and arrangements of the intervention positioned on the timeline (see Figure 5.2).



**Figure 5.2 Structure of the HRD Intervention**

Source: adapted from Brem (2019)

The first stage of the HRD intervention relates to personal and professional entry (Brem, 2019). As for any intervention, the core topic and structure of the workshop needs to be defined in order to ensure its course in the real-life setting (Brem and Spoedt, 2017). In this study, the core topic of the intervention centres around the issue of individual creativity, its importance within the context of the hotel sector and its development at work. The workshop starts with the introduction session, where the facilitator sets the agenda, explains the core topic of the intervention and delivers the technical knowledge on creativity. Warm-up tools and techniques can be used in the introductory parts of the intervention in order to encourage creativity-relevant cognitive processes, such as divergent thinking, ideation and task engagement (Ohly et al., 2017).

After the introductory session, the main part of the intervention commences, and it focuses on the practical application of creativity and the process of CPS. The objectives of the practical part of the workshop are twofold, and they seek to examine the primary aim of this research.

First, the intervention aims to build up an experience with creativity through action in the organisational perspective (i.e., socially constructed reality) and encourage individuals to practice creativity in the process of CPS to the workshop challenge. This is achieved by guiding individuals/groups through the stages of CPS, such as Idea Collection, Idea Generation, Idea Consolidation, Idea Evaluation and Choice, and Idea Elaboration (for further discussion see Section 3.3.1 in Chapter Three). Second, the practical part strives to provide participants with (new) practices of creative behaviours whilst working as a group. In order to achieve this objective, an effort is made to ensure the creativity enabling work environment in which participants are encouraged to freely exchange ideas as members of the group and with the facilitator, practice different kinds of behaviours that are associated with creativity such as collective problem-solving, the artefacts and interaction with the facilitator. As mentioned earlier, the workshop challenge is provided by each case organisation in advance, and this is done to increase the reliability and validity of creative problem-solving at work (Cooke and Saini, 2010).

Finally, the practical issues are also addressed in the actual intervention, such as the duration of the workshop, equipment, location of the intervention. As noted by Molineux (2018), “the people taking part in the intervention should have the feeling that the process being followed is a natural one, highly relevant to the issues being addressed and is beneficial to them rather than evokes an imposition upon them” (Checkland and Scholes, 1990; cited in Checkland et al., 2000, p. 822). Hence, following the Brem’s (2019) recommendations for length of training initiatives, the duration of the HRD intervention is two hours. The necessary equipment is provided to participants by the workshop facilitator, i.e., the physical artefacts such as flipchart papers, hand-out materials, markers, pairs of die (for further discussion see Section 4.2 in Chapter Four). Finally, the HRD interventions are organised on the premises of case organisations, in order to increase the attendance of workshop participants and explore the emergence of creativity within the context.

### **5.3.3 Choice of The Creative Technique for the HRD Intervention**

As it can be appreciated from the above sections, the HRD intervention is examined in terms of the action and the relationship between the researcher and participants of research. A selection of the creative technique for initiating the creativity-relevant processes is essential (Puccio et al., 2006) in order to frame the process of action and structure the HRD intervention (Figure 5.2).

The available research (Puccio and Acar, 2015; Treffinger et al., 2010) on the techniques for creativity argues that only a handful of studies has examined the potential of the creative techniques to encourage action for creativity. Hence, evidence on the best-suited creative techniques for creativity is not yet available. As acknowledged in Chapter Three, the current research explores the process of creative development using the model of the CPS and, therefore,



recommendations (Loewenberger, 2013; Puccio et al., 2006) for the choice of creative techniques based on the CPS are deemed to be relevant to this research. For example, Lubart (2016) posits that effective creative techniques need to encourage a combination of divergent and convergent thinking styles in order to support the process of creative development. It should also follow the Seifert et al. (2015) advice for the creative techniques to be reflected in the tool selection strategy, i.e., the degree of detail and instructions provided, a variety of skills possessed by the facilitator, relative complexity and amount of resources necessary to employ the tool. An overview of potential creative techniques for this research is found in Table 5.5.

**Table 5.5 An Example of Potential Techniques for Creative Development**

Technique	Creativity	Arrangements	Description
Unusual uses task	Divergent thinking	In team: participants develop a variety of different and original ideas from a basic target situation	1. Participants are asked to think and list all possible creative uses for an object. 2. They select the two most creative responses. 3. Other team members assess the creativity of responses using a 5-point scale.
Word Diamond	Divergent thinking	In team: ideas are developed using stimuli and by combining words and ideas.	1. The group participants choose 4 words/phrases from the problem statement. 2. These words can be placed in a diamond shape. 3. The group participants choose two words and combine the words to develop ideas. 4. The initially selected two words are combined with a third word to develop more ideas. 5. Steps 3 and 4 are repeated until all combinations are examined.
Slice and Dice	Divergent thinking	In team: to generate new ideas, identify and improve various solutions.	1. State the challenge. 2. Analyse the challenge and list as many attributes as possible. 3. Take each attribute, one at a time, and think of ways to change/improve it.
Cherry Split	Divergent and convergent thinking	In team: the challenge needs to be divided into separate blocks; each should be reassembled in different ways to create any number of alternative ideas.	1. State the challenge. 2. Split the challenge into 2 separate blocks. 3. Split each block into two more attributes. 4. Continue splitting the attributes until all ideas are generated. 5. Examine each attribute for ideas. 6. Attributes are reassembled and combined unless a final solution is ready.
Circle of Opportunity	Divergent and convergent thinking	Team: a concentrated study that allows generating new relationships and meanings, leading to original ideas	1. State the challenge. 2. Draw a circle and number it like a clock. 3. Identify 12 problem-specific attributes. 4. Throw one dice to choose the attribute. 5. Throw both dice to choose the second attribute. 6. Consider the attributes both separately and combined. 7. Explore connections with the challenge and develop a final solution

Source: adapted from Michalko (2006)

In this research, the 'Circle of Opportunity' technique is chosen to be used in the HRD intervention (Michalko, 2006), for its potential to satisfy the abovementioned requirements. For instance, in

previous studies (Souza, 2016) the ‘Circle of Opportunity’ technique was proved to be effective to encourage a combination of divergent and convergent thinking styles. It is also relatively easy to use, requires minimum skills of the researcher and the number of resources to employ this technique in the research study. Hence, the ‘Circle of Opportunity’ technique is deemed to be suitable to initiate and explore the process of creative development. The procedural description of the HRD intervention including the ‘Circle of Opportunity’ technique is found in Appendix Three.

Application of the ‘Circle of Opportunity’ technique occurs in stages, and each stage is associated with types of divergent and/or convergent thinking and creative behaviours. In Table 5.6, the stages of the ‘Circle of Opportunity’ technique are illustrated and integrated with the stages of CPS.

**Table 5.6 Connecting the ‘Circle of Opportunity’ Technique with the CPS Stages**

<b>The workshop stage</b>	<b>The ‘Circle of Opportunity’ technique</b>	<b>Stage of the CPS model</b>	<b>Type of thinking</b>	<b>Meaning</b>
N/A	Defining the problem	Understanding the challenge	N/A	Understanding the context, formulating a challenge
Stage of Idea Collection	Developing the 12 attributes of the problem and choosing the 2 attributes for ideation	Generating ideas	Divergent thinking	Findings connections between seemingly unrelated attributes. Connecting the brainstorming with the problem
Stage of Idea Generation	Brainstorming connections between the 2 attributes			
Stage of Idea Consolidation	Searching analogies between the 2 problem attributes and the problem			
Stage of Idea Evaluation and Choice	Choosing the most promising ideas and developing a realistic solution	Preparing for action	Convergent thinking	Formulating a problem solution. Planning and implementation
Stage of Idea Elaboration	Finalising the solution, in consideration of resources and KPI’s	Planning approach	Convergent thinking	Presenting the final solution

Source: compiled by the author

The first stage ‘Defining the problem’ involves the introduction of the challenge to the workshop participants. Requirements for the challenge were followed by the researcher (Brem, 2019), particularly it was expressed as a clear and specific statement, was relevant to the study population and formulated by HR/General Managers in advance of the HRD intervention, and contained a sufficient level of detail for understanding. These requirements were essential in this study in order to increase the proportion (i.e., quantity) and value (i.e., quality) of ideas in the process of creative problem-solving.

The following stages ('Developing the 12 attributes', 'Brainstorming the connections' and 'Searching analogies') relate to the stages of idea generation (stages of Idea Collection, Idea Generation and Idea Consolidation) and incorporate the divergent type of thinking (Lubart and Zenasni, 2013). These stages are in line with the primary aim of this research, which seeks to explore the role of HRD in enabling employee creativity. Individual creativity involves the incorporation of divergent and convergent thinking (see Section 2.3 in Chapter Two) in the process of problem-solving, hence some stages of the HRD interventions should entail styles of divergent thinking. In line with the logic of the 'Circle of Opportunity' technique, divergent thinking emerges during the HRD intervention, namely:

- Developing the twelve attributes of the challenge.
- Exploring (brainstorming) connections between the two problem attributes. In this stage, the workshop participants are encouraged to work with the artefacts in order to support their ideation (for further discussion see Section 4.2 in Chapter Four). In this study, the artefacts are viewed as physical resources in the work environment such as a pair of die, flip charts (to record ideas) and markers (to write ideas).
- Exploring (brainstorming) connections between the two problem attributes and the challenge. For example, the workshop participants are prompted to explore how the connections between the two problem attributes can be related to the challenge and what connections can emerge from this relationship.

The stage 'Choosing the most promising ideas and developing a realistic solution' relates to the stage of planning a solution (stage of Idea Evaluation and Choice), and it involves an integrative (convergent) style of thinking (Lubart, 2016). Namely, the research participants engage in the selection of the best ideas from the stages of idea generation and development of these ideas in the form of solutions. Runco (2010) points out that divergent and convergent thinking are essential for creative thinking, hence practising both kinds of thinking during the HRD intervention is likely to increase the ability of creative problem-solving and creative potential (Puccio et al., 2006). During the workshop, the application of convergent thinking is achieved by completing the CPS in the form of selection and evaluation of ideas and solution development.

The final stage 'Finalising the solution' refers to the finalisation and presentation of the solution. It involved the style of convergent thinking, for example, the workshop participants are encouraged to complete the CPS, then present their solutions to the other groups and the facilitator. After presentations, the feedbacking session is included and involves interactions with the other groups and the facilitator, participant feedback over the workshop and concluding comments.

### 5.3.4 Method of Self-Assessment

The method of self-assessment method is the most widespread and practical method to explore creativity in empirical research (Holt and Lapenta, 2010). Kaufman et al. (2008) pointed out that creative self-assessment is an effective and simple method to obtain opinions regarding personal creativity. Therefore, this study employs self-assessment as the method of gathering information and data regarding attitudes to individual creativity in the pre-intervention period, and then in the post-study.

In this research, a multifaceted creative self-assessment instrument is required to capture whether and how employee creativity might be changed via the HRD intervention. However, the existing research (Mathisen and Bronnick, 2009; Perry and Karpova, 2017; Pretz and McCollum, 2014) posits that the complex measure investigating the nature of employee creativity at work is lacking. For the purpose of this research, a multifaceted creative self-assessment instrument is developed, and it reflects the creativity components (for further discussion see Section 2.3 in Chapter Two and Section 3.1 in Chapter Three). This instrument integrates the established measures of creativity which have been proved reliable and valid measures to examine the components of creativity as independent measures (see Table 5.7).

**Table 5.7 Measures Used in the Creative Self-Assessment Instrument**

Construct	Measure	Items	Alpha	Reference
Stable traits	NEO Five-Factor Inventory	60	Between .68 to .86	Costa and McCrae (1992)
Surface traits	Creative Self-Efficacy Scale	3	.87	Tierney and Farmer (2002)
	Creative Process Engagement	11	.80	Zhang and Bartol (2010)
Perceptions of the work environment (a driver)	KEYS <sup>®</sup> to Creativity and Innovation <sup>2</sup>	78	Between .66 to .91	Amabile et al. (1996)

Source: compiled by the author

In the development of the multifaceted creative self-assessment, the strategy of purposive sampling was used and involved the selection of creativity measures from each of the instruments (Teddle and Yu, 2007). As noted by Jang et al. (2002), depicting facets from complex measures of creativity, such as NEO FFI, rather than employing the instrument as a whole may provide more thorough investigations of creativity. Furthermore, stable traits as measured by the NEO-FFI were adapted to the needs of the research by incorporating job-specific context. As noted by Pace (2005), “Work-specific scales of personality should be used over more general scales in applied

<sup>2</sup> Approval for the use of the tool in this research was received from the Centre for Creative Leadership in November 2018

settings, as their context specificity increases their ability for prediction of important criteria” (p. 38). The structure of the multifaceted creative self-assessment, as well as the procedure examining its reliability and validity, are found in Appendix Four.

The multifaceted creativity self-assessment measure consists of the three underlying constructs (stable traits, surface traits, perceptions of the work environment) and involves 47 measures. The creative perceptions are explored using the rating scale evaluating the strength of each measure from 1 (strongly disagree) to 5 (strongly agree). The creative self-assessment also includes the control variables such as age, gender, organisational tenure. Finally, in line with the KEYS<sup>®</sup> to Creativity and Innovation instrument (Amabile et al., 1996), the two qualitative questions are included in the self-assessment in order to explore perceptions of the forces in the work environment, and they can be either supportive (*What are the TWO most important factors supporting creativity in your current work environment?*) or detrimental to creativity (*What are the TWO most important factors inhibiting creativity in your current work environment?*). These questions are presented as a multiple-choice question, with an option for ‘*other factors*’ to allow respondents to express their own perceptions of the forces in the work environment.

Several limitations of the method of self-assessment are recognised and addressed in this study. For example, honesty of responses has been an issue in previous research (Kaufman, 2019), meaning that individuals were likely to exaggerate their responses to look better rather than submit honest responses. Furthermore, the works by Beghetto and Kaufman (2014) and Baas et al. (2015) posit that individuals may score inconsistently throughout the measures due to insufficient understanding of the meaning of creativity. Finally, there were concerns that self-reports were limited to generate a rich perspective on the meaning of creativity to individuals and, therefore, more complex methods of data collection were requested by the researchers (Baer, 2015; Luring and Selmer, 2013). In this study, limitations of the self-assessment instrument are addressed with the method of assessment where the data are arriving from multiple sources, such as participant observation and interviews with the participants and HR/General Managers. The methods of participant observation and interviews are discussed in the following sections.

### **5.3.4 Participant Observations**

One of the advantages of the multiple case-study approach is that it occurs in the real-life setting of a case and, therefore, it allows the researcher to directly observe the research population and participate in research activities. This method is called the participant observation approach (DeWalt and DeWalt, 2011) and is understood as “the method in which a researcher takes part in daily activities, rituals, interactions, and events of a group of people as one of the means of learning” (p. 1). The method of participant observation provides the amount of flexibility to the

researcher in the process of observations, for example, the researcher may incorporate different roles such as a facilitator of the learning process and an observer of participant behaviours (Yin, 2017). Some provisional observation instruments such as observation protocols are essential for the researcher, in order to witness individual behaviours or group dynamics and ensure consistency of the research findings across the multiple cases.

In the current study, participant observation is essential to document the process of creative development. This process is led by the researcher who takes the role of the HRD facilitator and guides the research population across the stages of CPS. Several sources of data are needed to examine the role of HRD for employee creativity, namely: a potential of the HRD intervention to trigger creative behaviours in the work setting; the nature of creativity-related behaviours which emerge in response to the HRD intervention; the role of the artefacts in the process of creative development; and the perception of how managers see creativity as being facilitated by the HRD intervention. Hence, the study employs the participant observation approach to observe, and get a stronger understanding of a) the process of creative development; b) the factors in the HRD intervention that support creativity and 3) the forces in the creativity favourable work environment.

For the purpose of this research, the observation protocol is developed, which documents behaviours and cognitive processes associated with creativity, namely personal and environmental factors in the work environment (see Appendix Five for the observation protocol). Participants are observed in terms of their levels of involvement in creative problem-solving, reflection of behaviours and thinking styles that are associated with creativity (divergent and convergent thinking, novelty, originality), the individual dynamics (emotions and affective states in the process of problem-solving). The study participants are also observed for the levels of their involvement in teamwork activities, the nature of task involvement (engagement with the tools for creativity, interaction with the facilitator, exchange of ideas and communication with members of the team), and the group affective states. The participant observations are compiled at the same time taking notes, during the HRD intervention and reviewed right after the HRD intervention. This is done in an attempt to preserve the richness of the context and the behaviours/ conversations observed.

### **5.3.5 Semi-Structured Interviews**

This study seeks to incorporate a multilevel perspective to explore the role of HRD in enabling employee creativity, for instance, perspectives of the research population and practitioners in each organisation. Elliot (1991) points that interviews are essential to understand the nature of the findings from different angles, by this ensuring that the data are saying exactly what the researcher thinks they are saying. Moultrie and Young (2009) add that the interviews help to

increase the generalisability and depth of the findings behind observations of participant behaviours. Hence, this research employs interviews as a supplementary method of gathering data in addition to creative self-assessment and participant observation, in order to get more detailed narratives of the role of HRD for individual creativity (Hargadon and Bechky, 2006).

In line with Saunders et al. (2016), there are the three main types of interviews, structured, unstructured, and semi-structured. The selection of the type of interview should be coherent with the research aims/objectives of the study, the underpinning philosophy and the strategy. This research incorporates a pragmatic, mixed-method stance, and all types of interviews may be employed in this research, for the needs of the research (Creswell and Clark Plano, 2007).

A key difference in the three types of interviews relates to the degree of structuring the research process (Saunders et al., 2016). For example, unstructured interviews have no predefined questions, and research participants are encouraged to freely express their opinions, experiences, and beliefs (Greener, 2008). Structured interviews rely on a standardised set of questions, and the research participants are examined with the same questions in the same order. Finally, semi-structured interviews allow a degree of flexibility in the research process (Saunders et al., 2016), in particular the researcher has a list of key themes or questions, however, such themes are used to ensure consistency in the research area worth exploring, and additional questions and prompts (beyond a list of key themes or questions) can be used to promote more discussion and detail. Having a degree of flexibility in the research process is important for this research which seeks to undertake a multilevel study and explore the subjective meaning regarding the role of HRD in enabling creativity by participants from different levels across the organisation (Greener, 2008).

The key viewpoint of this research is that the HRD intervention provokes various behaviours and experiences during the process of creative problem-solving, and they have direct implications on how the study participants see the value of this intervention on their creativity during the intervention and over time. Furthermore, practitioners (HR/General Managers) in each case organisation are key to identifying and acknowledging a difference in employee creativity due to the HRD intervention. Therefore, two sets of interview questions for the study participants and practitioners are developed.

#### 5.3.5.1 Interview Questions for Study Participants

The study participants are the organisational actors who require creativity as part of their daily duties (Barczak et al., 2010) and ideally, they would be influential to promote the creative approach in their individual teams/departments. They are middle- or senior managerial staff and represent a range of departments from the operational core, including HR, marketing, sales, reception. In line with recommendations of constructivist research designs that involve learning

and training interventions (Gerlach and Brem, 2017; Wang and Horng, 2002), interviews occur three months after employee enrolment in the HRD intervention. Interviewing the workshop participants aims to explore a change in their attitudes to creativity due to the HRD intervention.

For example, the first interview question is *'How has the workshop changed attitudes to your creativity?'.* Additional questions relate to aspects in the HRD intervention, such as warm-up exercises, teamwork, the tools for creativity, interaction with the facilitator, and the supportive work environment. These questions are intended to help the workshop participants unveil their opinions and experiences with the HRD intervention and creativity at work.

Another example is the question *'Have you made an extra effort for creativity/more creative behaviour since the workshop?'.* This question aimed to explore the extent of creative behaviours and achievement of the workshop participants and their perceptions of the organisational support for being creative post-intervention. These answers help to build links between HRD and creativity.

#### 5.3.5.2 Interview Questions for Practitioners (HR/General Managers)

Practitioners are gatekeepers to the case organisations, members of staff at the top hierarchy of management, such as HR managers or General Managers. Their opinions regarding creative development of the workshop participants are important to this study, in order to enrich the meaning and robustness of the findings (Garavan et al., 2019). Practitioners were encouraged to share their knowledge whether they found the HRD intervention to be a practical exercise for the staff and promoting behaviours associated with creativity. Therefore, a set of interview questions for practitioners sought to provide insights into the role of the HRD intervention in fostering creative behaviours of their staff, for example: *'What kind of change in creative behaviours have you identified since the workshop?'.*

Although the study population was involved in the process of creative problem-solving to the organisational challenge, it is acknowledged that their solutions may not necessarily be implemented. The degree of solution implementation at work depends on the organisational commitment to creativity (Waight, 2005). Therefore, the questions such as *'How did the change in creative behaviours contribute to individual performance? Organisational performance?' or 'What creative ideas or solutions have been supported by the organisation'* were included in this study in order to explore the role of the HRD intervention in enabling individual and organisational performance. It also helped examine a potential organisational commitment to creativity. The sample interview guide for both the study participants and practitioners is found in Appendix Six.



## **5.4 Data Collection**

The data collection process was undertaken in the two stages involving the pilot study and the main study. The purpose of the pilot study was to reconsider the data collection plans and ensure the structure and procedures of data collection prior to method implementation (Yin, 2017).

### **5.4.1 Pilot Study**

A pilot study is a short study that helps to test the research protocols, the quantitative research instruments and other techniques prior to the main study (Saunders et al., 2016). Using the results from the pilot study, the researcher can improve the research design and become more familiar with the process of data collection. It offers the opportunity to clarify the content of the HRD intervention and explore the structure of the creative self-assessment instrument. The pilot study occurred in the two stages involving the creativity workshop and investigations of the creative self-assessment.

#### **5.4.1.1 Creativity Workshop**

The creativity workshop was delivered in November 2018 as part of an Economic and Social Research Council (ESRC) sponsored event, the Festival of Science Northern Ireland. The event was open to members of the public, the topic of the workshop was 'Stimulating SME Innovation and Creativity through HR Development'. The workshop was 30 minutes in duration and involved nine participants, including four women and five men who came from both academic and non-academic sectors around the Belfast area.

The researcher took a role of a facilitator of the workshop. The workshop challenge was formulated as 'Difficulty in attracting/ recruiting the right talent'. The workshop participants were provided with the rules for problem-solving and supplied with the artefacts such as flip charts, markers, a pair of die. Creative problem-solving took in three small groups, three participants each. By the end of the workshop, participants were invited to present and discuss their creative solutions to the challenge. They were also asked to leave individual feedback on the process of creative development and participate in the quantitative aspect of research.

The researcher took observation notes (see Appendix Five) to document individual and group behaviours in the process of creative problem-solving. Using the thematic analysis (Cameron, 2009), the behaviours and conversations were recorded in word format and translated into themes. The themes were coded and analysed in NVivo 12.2, then exported to MS Excel for visual presentation. An example of the analysis of the workshop can be found in Appendix Seven. The results showed that the workshop and the 'Circle of Opportunity' technique had the potential to initiate and encourage creativity-relevant cognitive processes. For example, the majority of the

workshop populations were observed with creativity-relevant cognitive states and behaviours across the stages of the intervention, such as *Fluency* (development of many ideas), *Elaboration* (developing ideas in final solutions), *Originality* (considerations of novel and untraditional perspectives). The creative technique was also potential to provoke a combination of divergent and convergent thinking styles. However, some participants demonstrated mixed behaviours, for example, they participated in problem-solving less consistently (periods of less active involvement). The findings advise that such inconsistent behaviours were influenced by the forces in the work environment such as teamwork and engagement with the facilitator. For example, the research participants did not know each other prior to the creative workshop and, therefore, it was challenging for them to share ideas and participate in collective problem-solving. Therefore, attention to the group composition needs to be given by the researcher in case organisations, for example, the participants as members of a group need to know each other in order to engage in idea-sharing. Hence, the researcher added considerations of the group composition to the HRD intervention for the main study.

During the creative workshop, the researcher attempted to deliver a sense of the creativity enabling environment. For example, the researcher provided the research participants with clear instructions for the 'Circle of Opportunity' technique and was offering help across the stages of the workshop. The challenge however was to ensure that the groups kept engaged in the task. It was therefore decided to incorporate supportive and interactive styles of engagement with the workshop population in the main study. Furthermore, it was challenging to document the behaviours of individuals/teams during the creative workshop. It was acknowledged that a stock of rich data (emotions, conversations) could be missed in the main study. Hence, the issue of data incompleteness would be acknowledged as a limitation of this study.

The general feedback was that the HRD intervention was an interesting and unusual exercise for problem-solving. For example, the research participants commented that they liked the fact that they were capable to quickly generate ideas for the workshop challenge although they did not hold prior experience with creativity. However, one of the suggestions was to deliver more precise instructions about the term creativity and the 'Circle of Opportunity' technique. The workshop participants also felt that warm-up techniques prior to the intervention would help them to become more familiar with the issue of creativity. Therefore, the technical presentation about creativity and several warm-up exercises were added to the HRD programme. Hence, undertaking the pilot study was crucial. It provided the researcher with opportunities to practice the creative workshop and familiarise herself with the process of participant observations.

#### 5.4.1.2 Creative Self-Assessment

The importance of pre-testing of quantitative research tools is emphasised by Grimm (2010) who states that pre-testing is “an absolutely necessary step to ensure all kinds of errors that are associated with survey research are reduced” (p. 100). It is usually done on a small sample of respondents who comment on the way how the survey is organised and structured. Therefore, the researcher pre-tested the self-assessment instrument to ensure that it was well-designed and, therefore, issues of misinterpretation, sensitive questions or further concerns would be minimised in the actual study.

The self-assessment instrument was tested on the sample population of 60 participants who voluntarily agreed to complete the assessment. The group consisted of respondents from both academia and non-academic sectors and included 21 professionals, 9 participants from the pilot study, and 30 students from Ulster University. Of 60 participants, 23 respondents (38% response rate) returned the forms.

In the pre-testing, certain wordings appeared to be confusing to the respondents. For example, the opening sentence in the main part of the assessment tool was worded as follows:

*This is the main part of the assessment tool consisting of 51 questions. It should take no more than 10 minutes to complete the assessment.*

One professional found this wording confusing and annoying:

Why do you specify the exact number of questions? I felt reluctant to complete the assessment because this meant a lot of time.

With this in mind, the opening sentence was reworded to:

*This is the main part of the assessment tool. It should take no more than 10 minutes to complete the assessment.*

Other respondents suggested the researcher improve the layout of the self-assessment:

*This is the assessment of creativity! I would expect some creative approach to the survey design. The remaining elements are fine.*

The comment was felt relevant to the survey design but was constrained by the Qualtrics platform for limited design customisation. Thus, this may be considered a limitation of the current study.

Another respondent advised to include a question relating to individual tenure within an organisation.

From my experience, people behave more creatively in the first years of employment.

The supporting evidence is scarce in the literature, but it was still decided to consider this comment and address with the following question:

*How many years have you been with your organisation?*

From this illustration, it can be appreciated that the use of survey pre-testing was beneficial to the study. The survey was revised and adjusted (see Appendix Four).

### 5.4.2 The Main Study

Performing the pilot study helped the researcher to refine the research methods of participant observation and creative self-assessment. It also provided valuable opportunities to practice the conduct of the HRD intervention and collect the data in the process of participant engagement in creative problem-solving. Hence, the pilot study enhanced the confidence of the researcher that the methods of data collection (participant observation, creative self-assessment, and interviews) would help to accomplish the primary research aim and objectives.

The next stage for the researcher was to ensure access to the case organisations. As noted in Section 5.2.1, four organisations within the hotel sector agreed to participate in the current study. The characteristics of the four case organisations are shown in Table 5.8.

**Table 5.8 Summary of Case Studies**

Feature	Case One	Case Two	Case Three	Case Four
Star	4 stars	4-5 stars	4 stars	3 stars
Location	Belfast, Antrim	Different locations, Antrim	Dunadry, Antrim	Belfast, Antrim
Number of employees	<100	>150 each hotel	<100	<100
Number of rooms	187	Between 50 and 200 each	72	75
Available HRM/HRD practices	Recently formed HRM with limited practices of (creative) training	HRM function in each hotel	No HRM department, functions performed by General Manager	HRM function with limited practices of (creative) training

Source: compiled by the author

The findings in Table 5.8 illustrate that all four cases are medium-sized organisations (between 100-150 employees each, between 50 to 200 rooms). They differed in the HRM practices, for

example some organisations lacked the HRM department, or some organisations had limited functionality of the HRM department for training and development. This demonstrates diversity across the cases, which can increase the richness and representativeness of the findings (Teddle and Yu, 2007). The following sections provide further detail on a sample of the research population who were involved in the current study.

#### 5.4.2.1 Case One

Prior to the process of data collection, the researcher arranged a meeting with the HR Manager and discussed the structure of the research study. The HR Manager said that creativity was essential for the organisation as they daily experienced a range of challenges. The HR department was recently formed, and on-site training opportunities were not yet available. Several training opportunities were provided off-site by the global chain; however, those opportunities were not available to managers since the training hub was located in London and, therefore, meant extra expenses for the organisation. The HRD intervention was therefore considered a unique training opportunity helping to increase creative abilities of the staff and help them to incorporate a fresh insight into existing challenges.

The challenge for the creativity workshop was formulated by the HR Manager, as 'Increasing the number of non-resident diners in the [signature restaurant]'. In total, ten managers were involved in the research study (Table 5.9).

**Table 5.9 Profile of Managers from Case One**

Participant (PT)	Gender	Age	Tenure
PT1	Female	21-30	1-3
PT2	Male	31-40	Less than a year
PT3	Female	21-30	Less than a year
PT4	Male	21-30	Less than a year
PT5	Male	41-50	1-3
PT6	Female	41-50	1-3
PT7	Female	41-50	1-3
PT8	Female	41-50	Less than a year
PT9	Female	21-30	Less than a year
PT10	Female	21-30	1-3

#### 5.4.2.2 Case Two

Prior to data collection, a meeting with an Event Manager was organised and delivered by a coordinator of the professional programme Manager Ambassador Programme at Ulster University. The module involved fourteen managers from the hotel chain in Northern Ireland, and this chain consists of seven medium-sized (between 100-150 employees each, between 50 to 200 rooms) hotels. The purpose of the professional module was to provide managers with skills of creative problem-solving and leadership.

The organisational challenge was formulated by the Event Manager and stood as 'Increasing the sales of hotel products using the voucher scheme'. Background information on the research population in terms of age, gender and tenure is found in Table 5.10.

**Table 5.10 Profile of Managers from Case Two**

Participant (PT)	Gender	Age	Tenure
PT1	Male	21-30	Less than a year
PT2	Female	21-30	Less than a year
PT3	Female	21-30	1-3 years
PT4	Female	21-30	4-6 years
PT5	Female	21-30	Less than a year
PT6	Male	21-30	4-6 years
PT7	Male	21-30	More than 6 years
PT8	Female	21-30	Less than a year
PT9	Female	21-30	1-3 years
PT10	Male	21-30	1-3 years
PT11	Male	21-30	1-3 years
PT12	Female	21-30	Less than a year
PT13	Male	21-30	1-3 years

#### 5.4.2.3 Case Three

Prior to data collection, the researcher held a meeting with the General Manager of the case organisation. The manager said that the need for creativity and creative development was enormous, particularly it was viewed as a source of competitive advantage and ability to respond to emerging trends with fresh insight. For example, the manager said that the target segment of the hotel has become diversified, and this forced the organisation to reconsider existing offers and become more creative in attracting customers from new markets such as China. Furthermore, there were also internal issues for (creative) development. For example, General Manager commented that the HR department was not yet formed, and functions of HR managers were performed by line managers (identifying employee needs) or external companies (selection and recruitment). Sometimes the external company provided training, which was of low relevance to the organisation, and, therefore, the creativity workshop was considered a unique training opportunity specific to the organisation and providing managers with new skills for problem-solving.

The workshop challenge was formulated by General Manager 'Increasing occupancy in the hotel group'. A total number of thirteen managers took part in this research study (Table 5.11).

**Table 5.11 Profile of Managers from Case Three**

Participant (PT)	Gender	Age	Tenure
PT1	Female	31-40	More than 6 years
PT2	Male	21-30	More than 6 years

PT3	Female	31-40	More than 6 years
PT4	Female	>60 years	More than 6 years
PT5	Female	31-40	More than 6 years
PT6	Female	21-30	1-3 years
PT7	Female	41-50	More than 6 years
PT8	Female	31-40	More than 6 years
PT9	Male	31-40	Less than a year
PT10	Female	>60 years	More than 6 years
PT11	Female	21-30	More than 6 years
PT12	Female	31-40	More than 6 years
PT13	Female	41-50	Less than a year

#### 5.4.2.4 Case Four

Prior to data collection, the researcher held a meeting with the HR Manager of the hotel. The manager said that creativity was important for the organisation, particularly it was considered a critical resource for the hotel to diversify existing offers and compete more effectively in the business environment. However, functions of the HR department were focused on selection and recruitment and, therefore, training and learning opportunities for the staff were limited. Hence, the HRD intervention was viewed as a unique opportunity for the organisation to provide managers with new skills for problem-solving and contribute to organisational performance.

The workshop challenge was formulated by the HR manager as 'Fixing a sales decline in the hotel/pub group'. A total number of seven managers took part in the HRD intervention (Table 5.12).

**Table 5.12 Profile of Managers from Case Four**

<b>Participant (PT)</b>	<b>Gender</b>	<b>Age</b>	<b>Tenure</b>
PT1	Male	21-30	1-3 years
PT2	Female	21-30	More than 6 years
PT3	Male	51-60	More than 6 years
PT4	Male	31-40	1-3 years
PT5	Male	41-50	More than 6 years
PT6	Male	21-30	Less than a year
PT7	Male	21-30	1-3 years

#### 5.4.3 Selection of Participants for This Study

As with all research studies, challenges to access the resources for the study are inescapable for the researcher, considering these issues predict whether or not the research is feasible. Having received access to the four organisations, the challenge of gaining access to individual managers arose and the relevant steps were undertaken.

In the three organisations examined (Case One, Case Three, and Case Four), the selection criteria were applied to the sample population in order to ensure sample representativeness. The principles of population homogeneity and heterogeneity were addressed by the researcher. In relation to homogeneity, managers from the marketing department were of primary interest to

the researcher. This choice was supported by the comments of Jeong et al. (2017) and Rucker (2017) who pointed out that although marketing managers required creativity to perform their tasks, only a handful of studies explicitly examined how to initiate and promote creative thinking among marketing employees. However, the marketing department as a focus of this research had to be revised to include managers from other departments such as sales, reception, bar and restaurant considering the marketing department was small in the case organisations (1-2 managers each). In recruiting the research participants in this research, the method of snowball sampling (Marshall, 1996) was adopted such as the method where the HR/General Managers were responsible to nominate managers for this research. In relation to population heterogeneity, additional criteria were applied. For example, the workshop participants were supposed to be different in terms of demographic criteria such as gender, age, and organisational tenure. Hence, the sample in the three organisations was representative in terms of demographic characteristics and involved participants from different departments.

With respect to Case Two, the sample selection strategy was not systematic nor rigorous. In this case, the researcher had no influence on the group composition since the sample population was created prior to this research commenced. The rationale of this sampling method can be aligned to the theoretical sampling approach (Coyne, 1997), defined as “groups are chosen as they are needed rather than before the research begins” (Glaser, 1992, p. 102). This can also be linked to the purposive sampling strategy, as the participants were chosen because they were deemed to be relevant to examine the research agenda (Setia, 2017). The group representativeness in terms of homogeneity and heterogeneity was ensured by the researcher. For example, the population was similar in terms of job roles held by respondents, i.e., middle-level managers. They however differed by gender, age, and tenure with the organisation.

It is important to note that a potential bias is recognised in this study, which can result from allowing the HR/General Managers to select participants for this research. This bias could have been avoided by encouraging individual managers to voluntarily nominate themselves for participation in the research, however, a self-selection bias could then occur. For example, this could mean that some managers would be more predisposed to recognise themselves creative than those who might not be available for the workshop or less interested in the issues of creativity. Thus, the study proceeds with this bias, which is considered a potential limitation of the findings.

#### **5.4.4 HRD Interventions Across the Case Organisations**

Once the researcher got permission from HR/General Managers of the case organisations to access each of the hotels, the researcher emailed invitation letters to the workshop participants. The letters contained background information about the study and contained a link to creative



self-assessment. The dates for the HRD intervention were discussed with HR/General Managers in advance, and the creative interventions took place on the premises of the three case organisations. The HRD intervention in Case Two was organised on the premises of Ulster University Belfast Campus.

Several housekeeping considerations were addressed by the researcher. For example, the room for the creative intervention had to be spacious and contain round tables and chairs, in order to accommodate the process of group work. It also had to be technologically equipped for PowerPoint presentations. On the day of the intervention, study participants were asked to familiarise themselves with consent forms and confirm their involvement in the study by signature. A sample of the consent form is found in Appendix Eight.

Table 5.13 illustrates the dates of the creativity workshop in each case organisation. In total, 43 study participants took part in the intervention. During the workshop, they were split into groups, and their creative development was facilitated by the researcher who acted as an HRD facilitator and employed the ‘Circle of Opportunity’ technique for problem-solving.

**Table 5.13 Detail on the Workshop in the Selected Organisations**

<b>Case organisation</b>	<b>Dates of the Workshop</b>	<b>Completed Creative Self-Assessment Prior the Intervention</b>	<b>Participated in the HRD Intervention</b>	<b>Number of Groups</b>
Case 1	1 April 2019	10	10	3
Case 2	18 June 2019	14	13	4
Case 3	20 March 2019	13	13	4
Case 4	4 March 2019	10	7	2
<b>Total</b>	<b>4</b>	<b>47</b>	<b>43</b>	<b>13</b>

The creative intervention incorporated the model of creative problem-solving (see Section 5.3.3). Based on the feedback of the pilot study, warm-up exercises (‘A Nine Dot challenge’, ‘A Penny for your thoughts’) and the technical presentation on the challenge of creativity were included in the structure of the intervention. The content and structure of the creative workshop are illustrated in Appendix Three.

As this study employs the method of participant observation (DeWalt and DeWalt, 2011), the researcher made clear to all participants of the study that the observations would take place during the creative intervention. The researcher attempted to generate as many observations as possible at the levels of individual and team. The observations were undertaken at each stage of the intervention, as shown in Table 5.14.

**Table 5.14 Summary of Participant Observations**

Stage of the intervention	Events
Warm-up exercises	Whilst the participants were exploring connections between the Nine Dots ('A Nine Dot challenge')
	The participants were discussing memories ('A Penny for your thoughts')
The stage of Idea Collection	Whilst the participants were discussing the 12 attributes of the challenge
	The participants were interacting with the facilitator
	Reflection of creativity-related behaviours (fluency of thinking, a variety of ideas)
The stage of Idea Generation	During the process of ideation
	When the participants were rolling die for the two problem attributes
	The participants were interacting with the facilitator
	The participants were interacting with each other
	The participants were recording their ideas
The stage of Idea Consolidation	When the participants were exploring connections between the two attributes
	The participants were interacting with the facilitator
	The participants were interacting with each other
The stage of Idea Evaluation and Choice	When the participants were exploring connections of the two attributes with the challenge
	The participants were interacting with the facilitator
	The participants were interacting with each other
	The participants were recording their ideas/solutions
The stage of Idea Elaboration and Presentation	When the participants were presenting their solutions
	The participants were discussing their solutions with other groups

Source: compiled by the author

#### 5.4.5 Creative Self-Assessment

The process of data collection through creative self-assessment was arranged on the Qualtrics platform, which was accessible to the researcher via the Ulster University Business School. The researcher also offered alternative means of completing creative self-assessment, for example, the workshop participants could complete the forms in paper and electronic formats. The researcher ensured that all managers who participated in the HRD intervention completed the creative self-assessment prior to the intervention.

A total number of 51 managers across the four cases were nominated to participate in this research, however, only 47 managers completed their initial creative self-assessment (92% response rate) and, therefore, were eligible for the creative intervention. However, of these 47 managers, only 43 managers took part in the HRD intervention. In the three-week time, when the research participants were again contacted by the researcher and asked to complete the second creative self-assessment, 25 managers (62.5% response rate) returned their forms. Details on participant involvement in creative self-assessment are summarised in Table 5.15.

**Table 5.15 Participants of the Study**

Case organisation	Nominated Managers	Completed Initial Self-Assessment	Completed Second Self-Assessment
Case 1	10	10	6
Case 2	14	13	8
Case 3	14	14	7
Case 4	13	10	4
<b>Total</b>	<b>51</b>	<b>47</b>	<b>25</b>

The purpose of the second creative self-assessment was to diagnose the role of the HRD intervention to influence individual perceptions of creativity and attitudes towards being creative in the post-intervention period. The researcher also attempted to get feedback about the intervention and explore if further stages in data collection would be needed to further enlighten the process of creative development (Gray et al., 2019). Hence, the feedbacking questions were added to the creative self-assessment instrument and presented as open-ended questions. Examples of such questions are found below.

*Do you find the workshop on creativity a useful experience for yourself?*

*Have you used the 'Circle of Opportunity' technique since the workshop?*

The researcher took measures to increase the number of responses in the post-intervention period. For example, the workshop participants from Case Organisation Two were difficult to access, considering the professional programme Manager Ambassador Programme at Ulster University was completed prior to the second wave of data collection and university email addresses were no longer used by the research population. Hence, the participants were accessed through alternative resources such as social (Facebook) and professional (LinkedIn) media to complete creative self-assessment.

Such low responses to creative self-assessment in the post-intervention period may be connected to general limitations of the research design which incorporates the idea of action in the HRD intervention. For instance, Bryman (2003) notes, "It may be company policy not to cooperate; they may not approve the scientific project; the researchers' assurances may not assuage worries about the amount of time that is taken up" (p. 2). Furthermore, the action designs require a commitment of the research population to the study, and this, in turn, may provoke the issue of disturbance, i.e., disruption of work routines and processes which might be unanticipated and painful (Gray et al., 2019). Hence, low responses may be linked to the challenge of the research design undertaken and viewed as a limitation of the current study.

#### **5.4.5 Semi-Structured Interviews**

Three months after completion of the creativity workshop, semi-structured interviews were arranged with study participants. The researcher also offered alternative means of completing semi-structured, for example, the study participants could choose face-to-face interviews, virtual interviews or a phone call. The researcher ensured that all managers who participated in the HRD intervention were invited to participate in semi-structured interviews.

A total number of 43 managers across the four cases were invited to take part in semi-structured, however, only 7 managers agreed to participate. This created a sample of study participants who completed all stages of the HRD intervention: creativity self-assessment prior to the creativity workshop, participation in the creativity workshop on an actual day, and creative self-assessment in the post-intervention period. In addition to them, three practitioners from case organisations (who acted as gatekeepers to the case study organisations) agreed to share their perspectives on creative development and performance of the staff. All interviews took in form of a phone call, were similar in duration and lasted between 20-30 minutes.

As discussed in Section 5.3.5, the purpose of the semi-structured interviews was to explore perceptions around own creativity some time after the training and examine the value of the creativity workshop for creative development. The study participants were also asked to share their perceptions of creativity enabling forces in the HRD intervention, including the facilitator's support, the artefacts, and teamwork. In addition to the study participants, narratives from practitioners were used to enrich the meaning and robustness of the findings (Garavan et al., 2019). Practitioners were encouraged to share their knowledge whether they found the HRD intervention to be a practical exercise for the staff and promoting behaviours associated with creativity. The evidence collected from the seven study participants was used as a principal source for data analysis (see Section 5.5 below); the evidence from the remaining study population was used to elaborate the findings and ensure their richness and completeness.

### **5.5 Data Analysis**

Analysis of case studies is difficult for the researcher since the results include a multitude of evidence that is collected from different sources (Yin, 2017). There is no specific strategy or approach for analysing the cases, and, therefore, the researcher had to undertake their approach to explore the meaning in the findings generated. Hence, this study adopts the researchers own analytic procedures and strategies to the findings to achieve the quality and reliability of the research study.

### **5.5.1 Transcription of the Findings and Coding**

Saunders et al. (2016) point out that the first step in analysing qualitative data (participant observation, interviews) relates to the transcription. There were 43 files in relation to participant observations at the individual level, 13 files in relation to participant observations at the group level, 7 interviews with study participants who completed all stages of the HRD intervention, and 3 interviews with practitioners (HR/General Managers from case organisations). All the observations were recorded in word format, and all the interviews were recorded on voice recorders and had to be transcribed. In the process of transcribing, the researcher eliminated identifiers from the data in order to assure the anonymity of the research participants. Each participant was assigned a code for analysis (for example PT stood for Participant, GM stood for General Manager, G stood for Group).

To enhance efficiency and transparency of data analysis, Saunders et al. (2016) recommend the use of professional software such as NVivo. This software can assist the researcher with coding and categorising a large amount of data, exploring connections between the codes, matching the codes, and exploring frequencies of words or codes in the data. This research employs a multiple case-study approach that requires several steps of analysis, such as individual case study analysis (at the level of individuals and teams) and cross-case study analysis (Cameron, 2009). Hence, the data was split into multiple smaller sets and then integrated by folders such as stages of the HRD intervention and the case organisation.

There are two major types of coding such as inductive and deductive (Saunders et al., 2016). The coding is called inductive when codes are developed by reading the data which emerges directly from the research participants, and the coding is called deductive when the codes derive from the literature, the conceptual framework or the methodology. The process of coding also needs to be consistent with the research philosophy, the research strategy and the methods of data analysis (Creswell and Clark Plano, 2007). This research incorporates the pragmatism philosophy and the mixed-methods research approach to explore the role of HRD in enabling employee creativity, and a deductive approach (Saunders et al., 2016) is employed in this study in order to understand the developmental nature of creativity from the participant's perspectives.

Stake (2013) recommends that multiple cases help the researcher to better understand the research problem than single case studies. Therefore, the researcher has to explore each case in detail and then examine the similarities or differences of multiple cases. The subsequent section explains the logic of the analysis of individual case studies.

### **5.5.2 Analysis of Individual Case Studies**

Undertaking the analysis of individual cases helps the researcher to appreciate the complexity and the uniqueness of each case (Creswell et al., 2007). In order to explore the role of HRD in

enabling employee creativity, the researcher started by examining all the data and information from the primary sources of data collection such as participant observations, creative self-assessment, and interviews. The analysis started with the results of participant observations; in particular, the researcher read the transcripts of observations and highlighted key themes in relation to creativity during the HRD intervention.

In analysing the data, the researcher employed the method of thematic analysis (Braun and Clarke, 2006). The thematic analysis could be understood as the method for identifying “patterns within and across data in relation to participants’ lived experiences, views and perspectives, and behaviour and practices” (Clarke and Braun, 2017, p. 297). The main advantage of this method is that it allows exploring broad themes and functions of talks and behaviours of what they are and how they naturally emerge from the action via the HRD intervention and in relation to the preliminary codes used in the literature (Hodges et al., 2008). Hence, the method of thematic analysis allows for a greater depth and flexibility when working with the data, for example how creative behaviours naturally emerge in the course of the HRD intervention, the roles which the research participants undertake in the problem-solving and the forces in the work environment which facilitate the emergence of creativity-related behaviours.

In the process of thematic analysis, several steps and recommendations as advised by Braun and Clarke (2014) were followed; namely, familiarisation with the data, development of initial (first-order) codes, integrating the codes into key themes (second-order codes), reviewing and finalising the themes, and articulating the findings (development of overarching dimensions). The researcher organised the data by generalising the findings to classes of individual cognitive states and behaviours (i.e., emergence of divergent and convergent thinking styles in the process of CPS, reflection of creative processes such as fluency, originality, a variety of new ideas) and classes of team/group creative dynamics (the nature of involvement, barriers for problem-solving, interaction with the facilitator). The following examples from participant observations and interviews are used to illustrate the findings.

#### **Extract 1**

Fluency (participant observations): *“The participant was quickly developing the problem attributes. After several minutes the participant asked, ‘what should we do next?’*

#### **Extract 2**

Q: How has the workshop changed your attitude to your creativity?

A: *It just allowed me to be able to think a bit more outside the box, whenever I deal with different scenarios in my job role, I work within the reservation department, so sometimes if I, if certain room*

*types are unavailable, just try to find a creative way of dealing with those problems, not even problems, try to see a different way to a situation or try to figure out a way to approach things.*

In the first extract, the observation emerged in the context of the HRD intervention and at the stage of Idea Collection. The participant was observed to be quick in the process of development of the twelve problem attributes and, therefore, was regarded to demonstrate fluency (an ability to quickly think of many and different ideas (So and Joo, 2017)). In the second abstract, the answer relates to a perceived benefit of the HRD intervention for individual creativity, for example, the interviewee's view could be summarised as 'the participant thinks that the HRD intervention helps to change thinking styles that are associated with creativity such as thinking outside the box and exploring different ways of problem-solving at work'. However, the development of such summaries may be problematic because achieving consistency of the findings is the task of the researcher rather than an expression of the participant's discourse, and, therefore, the context and examples for thinking outside the box in such examples may be lacking.

In addition to the thematic analysis, the researcher explores the quantitative data from the creative self-assessment instrument in order to gain further insight into creative development due to the HRD intervention. The multiple case-study approach seeks to provide an in-depth understanding of the findings rather than ascertain a magnitude and statistical significance of the change in perceived creativity (Creswell et al., 2007). Therefore, the quantitative findings are used to explore the basic features of the data (the mean values, descriptive statistics), such as whether there was a change in perceived employee creativity in the prior study and the post-intervention period. However, the researcher used the findings from the qualitative study (participant observations, interviews, open-ended answers in the creative self-assessment in the post-study) to present the best examples of the raw (qualitative) data and explain why the change in perceived creativity occurred.

### **5.5.3 Cross-Case Analysis**

Once the researcher completed the analysis of individual cases, the next stage was to explore the complexity and the uniqueness of each case in relation to the other cases. Stake (2013) points out that the researcher needs to undertake a cross-case analysis in order to interpret the findings across the cases. To complete the cross-case analysis, the researcher started by comparing the themes which emerged from different levels of analysis in individual cases. This allowed the researcher to identify the similarities and differences across the four cases and discern the conclusions by envisaging systemic patterns and interrelationships (Creswell et al., 2007).

The similarities and differences across the four cases are of particular interest to this research and provide value in explaining the findings (Cameron, 2009). Stake (2013) adds that

the greater number of cases that show similarities (replication) the greater rigour of these findings and the more generalisable results can be articulated by the researcher. The results of the individual cases are provided in Chapter Six: Findings on Creative Development. Chapter Seven collects the results of the cross-case analysis in line with the literature and the conceptual framework (see Section 4.2 in Chapter Four).

## **5.6 Accuracy, Validity and Reliability of Findings**

Among the challenges for the researcher is to accurately collate and interpret the findings collected via multiple sources of data. Saunders and Tosey (2015) explain, "Validity, or accuracy ... is difficult to realise because of the nature of the topics investigated" (p. 264). Specifically, when the researcher investigates the learning processes at work, s/he is likely to face two kinds of measurement problems. First, learning happens implicitly or explicitly, meaning that participants may not be aware of the ongoing learning process or the way they are learning. Thus, their self-reports or evaluations of training may be less evident. Second, learning processes are partly overt and partly covert implying that they may not create visible cognitive effects.

In addition to the above, the generalisability of the findings was an issue in this research. This means that the results were specific to a given context or a situation where the research was carried out. They were also explicit to a particular HRD practice; thus, the findings cannot be used as conclusions for other settings. Hence, the researcher acknowledges that the research would produce findings of high internal validity but low external validity.

Considering the above, the accuracy of data analysis and findings in this study is based on the researcher's ability to integrate results from the streams of qualitative and quantitative data and connect them as a whole. This is done via the methods of data triangulation and achieved in dialogue with participants of research. In this process, it was recognised that there was an inevitable potential for the researcher bias, because participant observations, as well as interpretations of quantitative data, were influenced by subjective judgements. To minimise the implications of bias, steps were taken to increase the accuracy of findings by attentively analysing the comments and recording all processes happening during the creativity intervention in a neutral way.

## **5.7 Summary**

This chapter examines the research methodology and ensures that it is suitable for this study. The chapter also clarifies the philosophy of this research and the research strategy. This study incorporates the pragmatic philosophical stance and in line with this philosophy the researcher views HRD and creative development as subjective and socially constructed by the researcher,



the research participants, the teams, the practitioners from each case organisation in the process of creative development and in the post-intervention period.

The current study is based on the pragmatism research philosophy and in respect of the limitations of previous research. The existing literature on HRM/HRD and creativity is dominated by deductive and positivist (quantitative) investigations which do not provide sufficient detail of evidence on how creativity can be developed and promoted at work (Agarwal and Farndale, 2017; Guan and Huan, 2019; Heffernan et al., 2016; Ismail et al., 2017; Kianto et al., 2017). Since the relationship between HRD and creativity requires 'action' (Isaksen, 2020; Jónsdóttir, 2017), and action, in turn, involves subjective experiences and social interactions between people at different levels of hierarchy (research participants, the facilitator, practitioners in case organisations), a sophisticated research approach is required involving multiple levels of evaluations and analysis (Garavan et al., 2019) in order to capture the nature of human experiences during the HRD intervention and examine how HRD fosters cognitive and behavioural processes that are associated with creativity. Hence, this research employs mixed-methods research and a multiple case-study approach in order to examine the research agenda. This chapter discusses the nature and structure of the HRD intervention (creative workshop) and the creative technique (the 'Circle of Opportunity') to support the process of creative problem-solving. This chapter also clarifies the nature of the single against multiple case-study research approach and demonstrates that the multiple case study is a preferred approach to exploring the role of HRD in enabling employee creativity.

This chapter discusses the research strategy and outlines the criteria for choosing case studies in line with the research aims and objectives. The four cases are chosen, and the analysis of the cases shows that these cases offer diversity and complexity to exploring the role of HRD in enabling employee creativity. The chapter also clarifies the research methods, and they involve participant observation, creative self-assessment and semi-structured interviews. As part of the method, the development of research instruments such as the observation protocol, the creative self-assessment, and interview questions are discussed. The process of data collection is clarified, and it involves the pilot study and the main study. The purpose of the pilot study was to verify the research methods and ensure that they could ensure the richness of the findings. Finally, the process of data analysis is enlightened, and the quality of this research (accuracy, validity and reliability) is ascertained.

# **CHAPTER SIX**

## **Findings**

## **6.0 Introduction**

This chapter presents the findings that emerged from the qualitative and quantitative streams of data collection. The findings highlighted in this chapter explore and build upon the research objectives as raised in Chapter One. Extracts from participant observations and interviews are used to support the emerging findings. The analysis relies on the narratives which emerged from the seven study participants, who completed all stages of the HRD intervention. To ensure the richness and completeness of the findings, insights from the overall study population (43 participants) are integrated within the findings and complement the results of the analysis of the seven study participants.

Data analysis begins with a brief overview of the creativity profiles of the seven study participants, in respect of their creativity perceptions prior to the training and upon completion of the HRD intervention. Pseudonyms are used to personalise the seven study participants whilst at the same time ensure their anonymity. The analysis then proceeds to examine findings with respect to each study objective, particularly (a) the developmental nature of creativity via the HRD intervention, (b) the process of creative development at work, (c) the creativity enabling forces in the HRD intervention which support creative development, and (d) impact of the HRD intervention on individual and organisational performance. The results of the thematic analysis are illustrated in Appendix Nine.

## **6.1 A Brief Overview of Creativity Profiles of Research Participants**

### **6.1.1 Interviewee One – Jack**

Jack was a male aged between 31-40 years old who worked as a Duty Manager for less than a year for case one. During initial contact (survey), he outlined that he did not find himself creative as he scored low across creativity-related traits. The data revealed that the study participant had low levels of conscientiousness, creative self-efficacy and creative skills. The respective mean scores were  $M = 2.75$ ,  $M = 2.5$  and  $M = 2.0$ . They were mid-range on the openness to experience scale ( $M = 3.0$ ) however he scored low on the fantasy ( $M = 2.0$ ) and actions ( $M = 2.0$ ) dimensions of openness to experience. This data was supported in the workshop when the study participant did not raise his hand when being prompted by the researcher to agree whether he considered himself to be naturally creative and to be creative in his current role. During the workshop, he however demonstrated interest in creativity and learning about how to be creative, as the following indicates:

*'There is always the necessity to think more creatively about problems we have. Personally, I often find this challenging and my go-to response is to rely on previous experience. I want to know how I can be more creative in my job role.'*

When carrying out warm-up exercises and the stages of CPS, the data suggests that he was engaged and contributed to groupwork with enthusiasm and ideas. For instance, he was observed as a driver for creative ideas in his team, was trying to engage others and get their perspectives. Upon completion of the workshop, Jack noticed differences in his perceptions of creativity, as he said: *'I found through the workshop that I am more creative than I may have given myself credit for'*. This was supported with the results of his creative self-assessment in the post-intervention period which showed that his levels of perceived conscientiousness, creative self-efficacy and creative skills increased. Overall, Jack thought that his participation in the workshop was a useful experience and allowed him to learn about creativity, namely its meaning and creative styles.

### **6.1.2 Interviewee Two – Sara**

Sara was a female aged between 21-30 years old who worked as a Reservations Manager for between 1-3 years in case one. Prior to the HRD intervention, she showed desirable traits of creativity for the workshop. Namely, she had high levels of openness to experience, conscientiousness, and extraversion traits. The respective mean values were  $M = 4.25$ ,  $M = 4.25$  and  $M = 4.00$ . However, she scored low to mid-range across creative self-efficacy ( $M = 2.00$ ) and creativity skills ( $M = 3.00$ ). This was supported in the workshop when the study participant did not raise her hand to agree on whether she thought of herself as a naturally creative person and as being creative in her current role. When carrying out warm-up exercises and the stages of CPS, the data suggests that she was engaged, followed the instructions provided by the facilitator and contributed to groupwork with a variety of ideas. She shared her ideas with other members of her team, worked with the artefacts (recorded ideas on flip charts, rolled a pair of die), and tried to develop the ideas of the others. Upon completion of the workshop, Sara thought that the intervention promoted her creative thinking, namely out-of-the-box thinking and was encouraged to apply this kind of thinking in her daily work, as she said: *'The workshop allowed me to be able to think a bit outside the box... try to see a different way to a situation and try to figure out a way to approach things'*. These findings are complemented with her results of creative self-assessment in the post-intervention period which showed that her levels of creative self-efficacy, or self-belief that she can produce creative ideas increased. Overall, Sara thought that her participation in the workshop was a useful experience and allowed her to learn about creativity, namely creative techniques, and creative styles.

### 6.1.3 Interviewee Three – Jim

Jim was a male aged between 21-30 years old who worked as an Operations Manager for less than a year in case one. The results of the creative self-assessment showed that he had low evaluations of personal creativity, as he scored mid-range across certain personality traits (*Extraversion, Openness to Experience, Conscientiousness*) and surface traits. The respective mean scores were  $M = 3.7$ ,  $M = 3.75$ ,  $M = 3.75$ , and  $M = 3.2$ . This data was supported in the workshop when the study participant did not raise his hand to agree on whether he thought of himself as a naturally creative person and being creative in his current role. The results of participant observations suggest that Jim was active whilst completing warm-up exercises and the stages of CPS. He was involved in groupwork and tried to contribute with a variety of ideas, be original in his thinking and justify originality and novelty in his ideas. The results of creative self-assessment in the post-intervention period suggest that there were no differences in his perceptions of creativity however Jim personally thought that his knowledge and understanding of creativity has changed, as he said:

*'I think that the workshop reminded me of different approaches to a problem or techniques of thinking that can help me to be more creative. However, I do not have time to fully benefit from the training and turn to become more creative due to time pressures at work'.*

Overall, Jim thought that his participation in the workshop was a useful experience and allowed him to learn about creativity, namely creativity techniques and creativity models.

### 6.1.4 Interviewee Four – Jennifer

Jennifer was a female aged between 41-50 years old who worked as an HR Manager and had less than a year of work experience in case one. She outlined during initial contact that she felt she was creative by declaring *'I always champion for creativity in this organisation... I would say that I am very positive about my creativity'*. Her statement was supported with the results of creative self-assessment which showed that she scored high across personality traits and surface traits of creativity. In the workshop, she raised her hand to agree that she considered herself to be naturally creative and that she was creative in her current job role. During the workshop, she was also a driver for creative ideas in her team, tried to encourage other team members to generate more ideas and have more creativity. For example, in her team, she proposed to roll a pair of die several times and try to explore connections between several pairs of attributes (although all groups were tasked by the researcher to work with one pair of problem attributes). She presented team solutions in front of other teams and tried to explain what was creative about their ideas, how they were different from existing approaches in the organisations and how proposed

solutions could be implemented. She referred to the whole creative journey, described all ideas that emerged from several pairs of attributes, and encouraged conversation and feedback upon completing her presentation. The findings collected in the post-intervention period suggest that no particular changes in creative self-assessment were reported by Jennifer. She also stated that *'Before the workshop, I had a positive attitude to my creativity and remained to do so.'* However, she felt that the workshop was a useful and important experience for her, as it allowed learning about new creativity techniques and the application of creative styles.

### **6.1.5 Interviewee Five – Paul**

Paul was a male aged between 21-30 years old who worked as a Training Manager and had less than a year of work experience in case two. The results of creative self-assessment prior to the intervention showed that he had moderate attitudes to personal creativity as scored mid-range across all personality traits and surface traits. This data was further elaborated in the workshop when the study participant did not raise his hand to agree on whether he thought of himself as a naturally creative person and being creative in his current role. During the workshop, he however said that he was interested to know and learn about creativity, as he said:

*'Creativity is a fundamental part of a successful manager... however, me as a person, I did not think I was that creative, I did not like being creative, but I think from doing the workshop I realised why it was. Because I just did not know how to be creative but in a progressive manner.'*

The results of participant observation suggest that Paul was engaged and tried to follow instructions whilst completing the warm-up exercises and the stages of CPS. He proposed to his team members that they roll a pair of die more than once, develop connections between a pair of problem attributes and record all ideas including ideas of other team members on flip charts provided. He presented team solutions, was able to reflect upon the team creative journey and tried to involve other teams and the facilitator in conversations about his team's solutions. Upon completion of the workshop, Paul noticed differences in his perceptions and understanding of creativity, as he said: *'My understanding of creativity and my approach to being creative changed due to the workshop'*. This was supported by the results of his creative self-assessment in the post-intervention period which showed that his levels of perceived conscientiousness and creative skills increased. Overall, Paul thought that his participation in the workshop was a useful experience and allowed him to learn about creativity, namely creative techniques and creative styles.

### **6.1.6 Interviewee Six – Emma**

Emma was a female aged between 21-30 years old who worked as a Trainee Manager and had less than a year of work experience in case two. Her results of creative self-assessment prior to the HRD intervention revealed that she had moderate attitudes to her creativity and scored mid-range across personality traits (*Openness to Experience, Extraversion*) and surface traits. This data was supported in the workshop when the study participant did not raise her hand to agree on whether she thought of herself as a naturally creative person and being creative in her current role. The results of participant observations suggest that Emma was engaged whilst completing warm-up exercises and the stages of CPS. She participated in teamwork however required assistance and further clarification on the creative activities set. The results of creative self-assessment in the post-intervention period suggest that there were only minor differences in her perceptions of creativity however Emma personally thought that her understanding of creativity and approach to being creative have changed, as she said:

*'I have better clarity in terms of creativity and am more open to ideas... the workshop got me thinking of different ideas, brought about a change in my attitude to come up with more creative ideas... sometimes it is difficult to do that. Everyone is just kind of stuck in a rut, nobody comes to that idea about how to make the business better and how to change things in the department. Now I can... kind of challenge people and try to make my team work together as well. I believe that was the biggest I got out from the workshop'.*

Overall, Emma thought that the workshop was a useful experience and allowed her to learn about creativity, namely its meaning, creativity techniques and creative styles.

### **6.1.7 Interviewee Seven – Kerry**

Kerry was a female aged between 21-30 years old who worked as an Assistant General Manager and had between 1-3 years of experience in case two. Prior to the HRD intervention, she had moderate attitudes to her creativity and scored mid-range across personality traits (*Openness to Experience, Extraversion*) and surface traits. The respective mean scores were  $M = 3.5$ ,  $M = 3.75$ ,  $M = 4.3$ , and  $M = 3.6$ . This data was further informed in the workshop when the study participant did not raise her hand to agree on whether she thought of herself as a naturally creative person and being creative in her current role. The results of participant observations suggest that Kerry was relatively less engaged in the stages of CPS and contributed with less involvement and fewer ideas than her team members. While she did not ask for help, she was glad to receive help when offered by the facilitator. The results of creative self-assessment in the post-intervention period suggest that there were only minor differences in her perceptions of creativity however Kerry

personally thought that the workshop increased her understanding of creativity and encouraged her to think and work in more creative terms, as she said:

*'The workshop helped me think about a lot of creative ways of implementing different things and to our business. Since the workshop, I even came up with an idea to make changes in my department and how to involve my team in this process.'*

This is an interesting finding advising that, despite being less involved in creative activities on the actual day of training, Kerry was able to reflect on learning experiences in her own time resulting in her displaying more creative behaviours at work. Overall, the study participant thought that the workshop was a useful experience and allowed her to learn about creativity, its meaning and creativity techniques.

Overall, this sector summarised profiles of the seven study participants, in terms of their key demographic characteristics, kinds of participation in the HRD intervention, and their perceptions of the interventions for their creativity. A summary of the participant profiles is gathered in Table 6.1.

**Table 6.1 A Summary of Study Participants Profiles**

Participant/ Characteristic	Jack	Sara	Jim	Jennifer	Paul	Emma	Kerry
Age	31-40	21-30	21-30	41-50	21-30	21-30	21-30
Tenure	<1 year	1-3 years	<1 year	<1 year	<1 year	<1 year	1-3 years
Natural creativity	Negative	Negative	Negative	Positive	Negative	Negative	Negative
Creativity in current role	Negative	Negative	Negative	Positive	Negative	Negative	Negative
Traits of creativity	Low across personality and surface traits	High across personality traits ( <i>Openness to Experience, Conscientiousn ess, and Extraversion</i> ) and low across CSE.	Mid-range across certain personality traits ( <i>Extraversion, Openness to Experience, Conscientiousn ess</i> ) and surface traits.	High across personality and surface traits.	Mid-range across all personality traits and surface traits.	Mid-range across some personality ( <i>Openness to Experience, Extraversion</i> ) and surface traits.	Mid-range across personality traits ( <i>Openness to Experience, Extraversion</i> ) and surface traits.
Participation in the intervention	Was engaged and contributed with ideas & enthusiasm.	Was engaged, followed the instructions provided by the facilitator & contributed to groupwork with a variety of ideas.	Was active whilst completing warm-up exercises and the stages of CPS.	Was a driver for creative ideas, encouraged her team to generate more ideas.	Engaged & followed instructions whilst working on the warm- up exercises & the stages of CPS.	Was engaged whilst completing warm-up exercises and the stages of CPS.	Less engaged in the stages of CPS and contributed with less involvement and fewer ideas than her team members.
Value of the intervention	Perceptions of creativity increased. Learnt about creativity.	Developed creative thinking, e.g., out-of-the-box thinking and applied this kind of thinking in her daily work.	No differences in perceptions of creativity but personally thought that knowledge and understanding of creativity increased.	No changes but thought that the workshop was a useful & important experience.	Perceptions and understandi ng of creativity have increased.	Understandi ng of creativity and approach to being creative have changed.	The workshop increased understanding of creativity and encouraged to think and work more creatively



## 6.2 RO: To Explore the Developmental Nature of Creativity via the HRD Intervention

### 6.2.1 Changing Perceptions at the Individual Level: Evidence from the Seven Study Participants

This section is structured around three key themes which emerged from the thematic analysis: (a) creativity training outcomes, (b) developing creativity traits, and (c) influencing attitudes to creativity. In respect of creativity training outcomes, the interview data tells us that there was a relationship between involvement in training about creativity (via the HRD intervention) and creative development among the seven study participants who completed all stages of the HRD intervention. For them, training outcomes were associated with the acquisition of new knowledge, thinking styles and creativity techniques, and the application of knowledge about creativity into their work practices. For instance, Emma commented that the ‘Circle of Opportunity’ technique was a new technique for her to try and work with. Prior to the workshop, she did not know techniques for creative problem-solving and did not think that she could do creative work in her job role. However, learning about the ‘Circle of Opportunity’ technique during the workshop and applying it to a real-life organisational problem was beneficial to her as it showed how to address complex problems. She liked how the problem was broken down into smaller parts and the team was able to quickly develop connections between the problem attributes therefore she began to use this technique as part of her job role in the post-intervention period and with her team, as she said:

*‘I am thinking about the clock [Circle of Opportunity], I think it is a great and very useful instrument. I use it now when working with my team or in my work because this is kind of a mind map helping find more than one solution and see which one works better’.*

In respect to the second theme of the thematic analysis – developing creativity traits, the results of the self-assessment instrument indicate the influence of training on some personality traits (*Fantasy, Action, Ideas* as dimensions of *Openness to Experience*; *Self-Discipline* as a dimension of *Conscientiousness*; *Neuroticism*) and surface traits (attitudes for *Risk-Taking* and *Idea Generation, Creative Self-Efficacy*). For example, Kerry noticed that she became more open to new ideas due to her participation in the workshop and completion of the ‘Circle of Opportunity’ technique. Jack also thought that he became more confident in his ability to do creative work and more prone to teamwork as he knew about the benefits of teamwork for creativity. The influences of teamwork on creativity are explored in more detail in Section 6.4. The results of participant observations suggest that the HRD intervention facilitates training about creativity and is associated with

engagement in warm-up exercises and the stages of CPS, efforts to develop a variety of ideas and attempts to take the initiative. Jack provides an excellent example of such learning, more specifically, in the stages of CPS he was a driver for creative ideas and prompted his team members to do more and develop more ideas by saying: *'What are your thoughts on this?'*, *'Tell us what you think'*, *'We need more... we need more'*. He also worked closely with the facilitator wanting to ensure that his team was doing the right things. Hence, the HRD initiative in this study appeared to change and enhance creativity for these seven participants, as the following quotations illustrate:

*Kerry: Being creative would not be one of my strongest attributes however after the workshop it changed my way of thinking and how I could develop in becoming more creative.*

*Jack: It just allowed me to be able to think a bit more outside the box, whenever I deal with different scenarios in my job role ... just try to find a creative way of dealing with those problems ... try to see a different way to a situation or try to figure out a way to approach things.*

In respect to the third theme of the thematic analysis – influencing individual attitudes to creativity, the findings from interviews suggest that the HRD intervention was capable of influencing views on personal creativity, helped develop new thinking styles and creative practices. For example, as mentioned above Jack was a driver for new ideas and engaged in teamwork. He then said that completion of the workshop helped him realise that he was more creative than he initially thought. He said that during the workshop he was *'coupled with people who struggled to complete some exercises therefore he found himself being creative to help the colleague to complete the task'*. Similar findings apply to Kerry as she thought the completion of the creativity workshop allowed her to think differently, become more comfortable with complex and different tasks and be able to consider novel perspectives for problem-solving. She said that the workshop helped her to learn about new ways to approach complex things because in the past she often felt stressed *'about the actual problem I had to deal with, was worried about the ways to solve it.'* In addition to the above, Paul thought that his understanding of creativity and personal approach to being creative has changed. Whilst completing the stages of CPS, Paul took the initiative within his team, he was active in developing new ideas and put extra effort into the pursuit of creative outputs. In relation to the latter, contrary to the workshop instructions, he rolled a pair of die more than once, tried to explore connections between several pairs of problem attributes, and recorded all ideas on flip charts provided. As he said, he liked the pair of die elements of the workshop because it was funny and interesting and facilitated the generation of a range of perspectives on the problem. In the post-intervention period, he applied the results of

his learning and incorporated them within his own work, as he tried to resolve an operational problem in his hotel – to explore new ways of selling water. Hence, the HRD intervention, and the use of artefacts, in particular, appeared to have influenced his personal views on creativity and developed new creative practices, as the quotation below illustrates this:

*Paul: 'I did not know how to be creative, in a progressive manner... But with the new techniques learnt and the tools for creativity, I feel it can enhance the way someone thinks and see things.'*

### **6.2.2 Changing Perceptions at the Individual Level: Evidence from the Rest of the Study Population**

The findings indicate that developing creativity via the HRD intervention is not simple or straightforward. Three main themes emerged from the thematic analysis and are discussed below: (a) complexity of the intervention, (b) low relevance of creativity to own job, and (c) limited timeline to embrace creativity. In terms of the complexity of the intervention, the data tells us that some participants from Case Three and Four found it difficult to complete the stages of CPS and therefore were less engaged. The evidence which forms this section originates from the population beyond the principal seven study participants. From these additional observations, the data shows that the impact of the HRD intervention on creativity was not straightforward, as evidenced by PT7 from Case Three or PT1 from Case Four who said that the HRD intervention was not useful for them. During the actual intervention, such participants typically contributed few or no ideas and were likely to do their things during the workshop (e.g., chatting with other participants). They were, however, likely to converge ideas and help in later stages of CPS such as Idea Evaluation and Choice activities which required the selection of ideas and the development of final solutions. Such observations suggest that participants who had difficulties with the task and its understanding were more likely to struggle with divergent thinking thus limiting the effectiveness of the HRD intervention for them. The following quotations illustrate the above with such findings discussed in more detail in Section 6.5.

*PT7, Case 3: 'I felt that the workshop was hard to grasp... I am sorry, but I took nothing away from this.'*

*PT9, Case 4: 'I did not understand what the whole thing was about.'*

In relation to the second theme of the thematic analysis – the low relevance of creativity to one's job, the results of the analysis indicate that some participants from Case Three could not see the value of creativity for their job and thus were not engaged in the creative exercises utilised during the HRD intervention. In the stages of CPS, they behaved similarly to those participants who had

challenges with task understanding and thus were less engaged, reflected negative emotions (e.g., boredom such as PT4 from Case Three), and were likely to do their things. Another interesting point about such participants was that they did not interact with their team members and the facilitator. For instance, PT4 from Case Three was clearly less engaged and was navigating on the web when the facilitator came close and asked, *'Do you need any help? Is there anything I can help with or explain?'* The study participant switched off the phone but did not say anything – it was not clear whether any help was needed. Then, the researcher gave the instructions one more time and explained what the team was supposed to be doing. PT4 and other team members thanked the researcher; then PT4 switched on her phone and continued to do her things once the researcher departed. In the post-intervention period, such participants including PT4 and PT13 said that they could not see how creativity could fit into their day to day working hence could not identify the value of the HRD intervention. This finding offers implications for HRD practitioners; indicating that there is a strong need to screen and appoint participants in creativity training based on their motivation and need for creativity in their job roles.

In terms of the third theme of the thematic analysis - the limited timeline to embrace creativity, some participants from Case Three and Four said that they did not have sufficient time to learn and practice creativity, therefore, could not evaluate the HRD intervention. An example of such participant is PT7 from Case Four who was involved in teamwork in the initial stages of CPS (Idea Collection and Idea Generation) then became less engaged in the stages of Idea Consolidation and Idea Evaluation and Choice. He was trying and developing a variety of new ideas but was less involved in the selection of ideas and finalising creative solutions. When being asked about his engagement in the HRD intervention, PT7 noted that he liked some creative exercises, but creativity was not a priority for him because of work-related time constraints and therefore he could not think of any particular benefits, as the following indicates:

*'I have not fully been able to have a creativity approach, but it is something I am looking to put in place in the future. It has been a busy period which has been one of the factors preventing that.'*

### **6.2.3 Changing Perceptions at the Organisational Level: Evidence from the Seven Study Participants**

This section is structured around three key themes which emerged from the thematic analysis: (a) perceptions of the creativity work environment, (b) learning about creativity at work, and (c) transfer of training. In respect of perceptions of the creativity work environment, during the initial contact (survey) the majority of managers of the total study population thought that in their current work environment creativity favourable factors included 'Management,' 'Myself' and 'Teams or co-workers.' In other words, most of the research participants felt that existing

practices of management in terms of managerial support of creativity, existing practices of teamwork and personal creativity were among the strongest factors in the work environment which supported their creativity. Furthermore, all seven study participants who completed all stages of the HRD intervention thought that their organisation encouraged personal creativity in their organisation. When these findings are considered along with the results of the analysis in Section 6.2.1 and the evidence of low self-reflection of personal creativity by these seven participants prior to the HRD intervention, remarkably interesting and somewhat contradictory observations start to emerge. It appears that although prior to the intervention the seven study participants held generally low perceptions of their creativity, they felt that their organisations were supportive of their creativity. It may be that managers did not think that they were personally creative (i.e., identified creativity as an inborn skill). However, within the context of their work environment, they thought that they did a type of work that could be considered and recognised as creative.

In respect to the second theme of the thematic analysis – learning of creativity at work, the interview data tells us that there was a relationship between involvement in training about creativity (via the HRD intervention) and perceptions of the work environment among the seven study participants. The results of the creative self-assessment indicate that in the post-intervention period these study participants saw stronger managerial support of their creativity (i.e., *Work on Important Projects*), organisational encouragements for creative behaviours (i.e., *Mechanism for Encouraging New Ideas, Flow of Ideas*), and reflection of individual creativity at work (i.e., *I am Creative*). Influences of the HRD intervention on individual and organisational performance are covered in detail in Section 6.5. Data from interviews adds to the above findings and says that among the reasons for stronger perceptions of managerial and organisational support for creativity were (a) developing trust from senior managers, (b) emergence of opportunities of creativity, and (c) desire to take the initiative in relation to creativity. For instance, Sara said that her line manager was very supportive of her creativity and even encouraged her to participate in the HRD intervention. As previously mentioned, during the training, Sara was seen as an engaged study participant, she was attempting to develop a range of ideas, recording all ideas on flip charts and participating in team discussions about creative solutions. In the post-intervention, she felt more confident in her creative skills, therefore, took the initiative to resolve an existing organisational problem and tried to come up with a creative solution. Sara said, '*It is just more me trying to think more into things and trying to say okay. There is always going to be a solution... I followed the steps of CPS as we did in the workshop, finally figured out the source of the problem, was able to rectify that*'. As a result of her initiative and her ability to resolve the problem creatively, Sara said that she got trust from her manager and developed a

feeling that she could be creative. Hence, she felt encouraged to continue to work with creativity and try to resolve even more problems at work.

In terms of transfer of training, the interview data indicate that training in creativity requires incubation and time for gestation. For Kerry, for example, it took time after the HRD intervention to digest her learning experiences and incorporate more creativity into her daily work. The results of participant observation advise that she was less engaged in teamwork, contributed with fewer ideas and was involved in the development of final solutions rather than the divergence of new ideas. In the post-intervention period, Kerry noted that the creativity workshop was the first learning experience at work hence she was uncertain of her role as a member of her team. Overall, she felt that the HRD intervention and learning about creativity was useful therefore started to train her team in creativity, employ creative techniques (e.g., brainstorming), take initiative and consider creativity whilst addressing operational problems in her department. Such findings suggest that the transfer of training due to the HRD intervention may not be immediate and may require additional time for incubation and gestation. In addition to individual levels of learning, some study participants, such as Jack, Sara and Paul noted that transfer of training was also associated with organisational levels of learning and support. For example, they mentioned a need for continual training, a need for organisational encouragement, and a stronger awareness of the importance of creativity to organisations. These findings are examined in detail in Section 6.4.

In summary, the findings illustrate a connection between training in creativity via the HRD intervention and creative development at work. Links exist at individual and organisational levels, for example through acquiring new knowledge and skills, changing attitudes to creativity, applying the results of training in own work practices. The following section illustrates insights into the process of training at work and its influence on cognitive and behavioural characteristics of individual creativity.

### **6.3 RO: To Examine the Process of Creative Development at Work and its Impact on Cognitive and Behavioural Characteristics of Creativity**

Examinations of the process of creative development require an understanding of actions and steps. The findings are presented against a timeline as a means to portray 'the process' element of the study. The findings here rely on the results of interviews and participant observations which emerged in the process of completion of warm-up exercises and the various stages of CPS by the study participants. For simplicity and integrity of the findings, the start of the creativity workshop is noted as 12:00 pm and the end is 14:00 pm.

## **12:00 pm: Preparations**

The workshop began, the seven study participants who completed all stages of the HRD intervention commented that they were interested to learn about creativity because it was (a) an interesting concept, (b) a way to become more effective at work and improve individual work practices, and (c) a part of their personal development. In addition to these seven participants, some other participants from across the four case organisations, also said creativity was important in their profession. For example, PT1 from Case Four indicated that while he did not consider himself creative, he worked in the marking department and was required to be creative in his daily work and job specifics. Consequently, he was interested to learn about how to be creative and how to incorporate creative thinking into his job roles. Similarly, his colleague PT6 (from the same organisation – Case Four) agreed that creativity was important to him, but he did not know how to use and apply creative thinking. In the past, his approach was to rely on previous experience or take ideas from others when resolving an operational problem. PT6 hoped to learn about a different approach and become aware of his creative potential and skills.

These findings can further be elaborated with the results of interviews with HR / General Managers which took place before the intervention. They all mentioned that creativity was an important concept to their organisations, in terms of business effectiveness and competitiveness. For example, the HR Manager from Case One mentioned that creativity can help increase effectiveness and decision-making in the company. She said that although creativity was important and required, they did not know how to facilitate creativity among their staff. In this case, no training was available, except for a learning hub in London. Reflecting on this, the HR Manager said that travelling to London was associated with the extra expense which the organisation could not afford. Hence, they viewed the creativity workshop as a unique training opportunity that could help managers to learn about new and more creative types of problem-solving. Similar views were expressed by the General Manager from Case Three who also referred to limited training opportunities, the importance of creativity to the organisation and insufficient understanding of how to facilitate individual creative efforts. He also added that creativity could help his organisation gain additional competitive advantage as they were expanding their target market. He said that the Chinese market became a priority for the organisation, and they were expecting new customer flows. The General Manager said that they did not know how to serve and work with this new market segment. Hence, he hoped that participation in the HRD intervention will allow managers to learn about a novel approach to problem-solving and apply creative thinking whilst dealing with problems and challenges at work.

## **12:10 pm**

These findings emerged from the 'Penny for your thoughts' exercise which required participants to look at a year on a coin (arranged in advance by the researcher), think back to the year on the coin and think of an event that happened to them that particular year, then discuss memories with their partners in considerations of the creativity context. Four main themes emerged from doing the thematic analysis: (a) active participation in discussion, (b) positive affective states, (c) memory presentation, and (d) challenges in participation.

### *Evidence from the Seven Study Participants*

In respect of active participation in discussion, the results of participant observations tell us that the seven participants were engaged, held a conversation about their chosen event, and were supporting the conversation by asking follow-up questions. For example, Emma wanted to get more details about the memory of her partner by asking questions such as 'how?', 'what happened next?', 'that is interesting, tell me more about this'. Upon completion of this exercise, the study population was asked to present memories of their partners and explain creativity in these memories. Emma managed to complete this task effectively, due to the variety and depth of information that she collected from her partner.

In respect to the second theme of the thematic analysis – positive affective states, the results of participant observations suggest that such affective states were in the form of naturally occurring emotions, such as laughter and fun and emerged in the course of work with peers and discussion. In addition to naturally occurring emotions, some emotions emerged from engagement with the researcher and took the form of appraisals. Jack is a good example of such emotions. He was working with his partner on this task, and his partner was the person who presented his memory and tried to explain creativity in it. Once the presentation was finished, the researcher said, '*Oh, this is creative!*' At that moment, Jack was clearly encouraged and satisfied, as he took the initiative and started to reflect more. From what he said, it appeared that he moved to the United States several years ago where he started a new job that required new (and more creative) skills and work approach. He did not receive work-related training, but his approach was fully experimental and involved integrating knowledge and skills from different disciplines and exploring what worked best. At the time of the presentation, Jack's partner did not know these details with such insights emerging once the researcher recognised and appraised creativity in the memory and presentation. This means that recognition of creativity in the time of training and its appraisal are important in the HRD intervention which are likely to keep study participants engaged and motivated to learn, share and participate.

In respect of the third theme of the thematic analysis – memory presentations, the results of participant observations say that tasking the study participants to present creatively or in



consideration of creativity is likely to lead to extra effort and incorporation of creative elements in their thinking. Prior to memory presentations, the researcher explained that the study participants had to refer to creativity in their presentations, such as what was creative about the memories. Hence, the study participants tried to follow the workshop instructions, and this type of behaviour was particularly evident in the case of participants with high levels of conscientiousness (as scored in the self-assessment instrument prior to the HRD intervention). Jennifer is a good example of this finding. For instance, as a way to show that she followed the instructions carefully, Jennifer said, '*We are supposed to talk within the creativity context... well, [name of participant] got a new car that year, and creativity was a part of his selection process.*' It may therefore be assumed that having participants with high levels of conscientiousness is desirable for creative training as they are likely to carefully follow training instructions and try to demonstrate types of behaviours that are associated with creativity.

#### *Evidence from the Rest of the Study Population*

In addition to the findings above, the results of participant observations highlight that selection of warm-up exercises for creative training requires careful planning and consideration of individual training needs and characteristics (such as demographic characteristics). For instance, some workshop participants (beyond the principle seven study participants) were struggling with the warm-up exercise. An example of such participants is PT7 from Case Three, a female aged between 41-50 years old and with more than six years of tenure. She said that she could not complete the exercise as she got an old coin (10 years old) and as a direct result of this could not remember anything that happened to her 10 years ago. This view was shared by some other participants, for example, PT9 from Case 3, a female aged between 51-60 years old with more than six years of tenure who said that the warm-up exercise was not easy to follow. Although this study did not explicitly examine the influence of demographic characteristics (age, gender, tenure) on training, it may be possible that such characteristics should be considered whilst planning and designing warm-up exercises and the overall training programme in creativity.

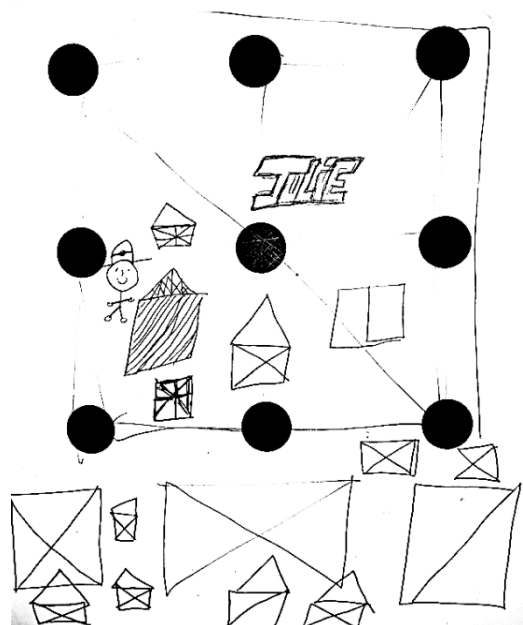
#### **12:30 pm**

These findings emerged from the 'Nine dot challenge' which required participants to connect nine dots using four lines or fewer and without lifting their pens. The findings relate to the overall study population across the four organisations. Three themes emerged from the results of the thematic analysis: (a) originality in problem-solving, (b) novelty, and (c) challenges in participation.

### *Evidence from the Seven Study Participants*

In terms of originality in problem-solving, the results of participant observations indicate that the seven participants tried to discover their solution to the challenge despite clearly struggling with the task. For example, Jim tried more than seven combinations and Emma explored five different combinations. In the end, they failed to identify the solution but their persistence in problem-solving and attitude to divergent thinking (in this case – developing a range of combinations) was a good sign and suggested that such study participants may be able to explore a variety of ideas (divergent thinking) when exploring the actual workshop challenge (discussed in sections below).

In respect to the second theme of the thematic analysis – novelty, the results of participant observations indicate that there was a limited novelty in problem-solving among the seven study participants. They were likely to follow the pattern (start from the top left corner, then continue to the top right corner, then go down, then go left to reach the bottom left corner, then cross 45 degrees) rather than try and identify a more unusual and novel way of looking at the problem. It may be possible that the task was difficult for the study participants therefore they could not see a more novel way of problem-solving straight away. An example of this type of problem-solving is Emma, who was likely to follow the pattern (as explained above) rather than to identify more novel solutions.



**Figure 6.1 Problem-Solving for the Task 'A Nine Dot Challenge'**

### *Evidence from the Rest of the Study Population*

In respect to challenges in participation, the results of participant observations indicate that completion of the warm-up exercises posed problems for some of the study participants. For instance, there were participants from Cases Two and Three who tried to get help from other participants and copy their solutions. Examples of such participants are PT8, PT9 and PT12 from Case Two who were obviously struggling with the task and tried to get help from PT7 who knew the solving strategy. In the end, they received the solution and completed the task, but their solution was not original nor novel. These findings support the claim above and suggest that HRD practitioners should be careful when planning and designing the creativity training and be able to identify creative tasks and exercises that could be resolved by the staff. For example, a range of different creative tasks and exercises could be used, that are distinguished by the levels of complexity. This may be useful for those participants who struggle with some tasks or have difficulties in demonstrating originality and novelty, hence they may appreciate having options for problem-solving exercises.

### **1:05 pm**

The first stage of CPS commenced (known as the Idea Collection stage), requiring the development of twelve attributes relating to the organisational problem. This section is structured around four key themes which emerged from the thematic analysis: (a) novelty in thinking, (b) fluency in thinking, (c) getting more involved after help-seeking, and (d) challenges in participation.

### *Evidence from the Seven Study Participants*

In respect to novelty in thinking, the results of participant observations advise that the seven participants were engaged and were capable to come up with new and varied ideas. For example, Jennifer was clearly a driver in her groupwork and the development of ideas. She was able to bring about energy for new ideas in her team whilst she was encouraging her team members to do more and produce more ideas. She was trying to think beyond obvious things (attributes such as 'menu' or 'customers' in the restaurant business) and explore items that were beyond the group discussion. At the later stages of the workshop, the ideas generated by Jennifer were the backbone of the final solutions.

In respect to the second theme of the thematic analysis – fluency in thinking, the results of participant observations suggest that the stage of Idea Collection could help study participants to develop many ideas and initiate dynamics in individual work and teamwork. In line with the workshop instructions, the study participants had only five minutes to complete the stage of Idea Collection and generate twelve problem attributes. The data indicates that the seven participants

were fast in their thinking and were able to follow the workshop instructions e.g., Jack and his team completed the exercise in time and were able to record all ideas on flip charts. By the end of this stage, his group had all twelve problem attributes around the circle as required and was ready to progress to the following stage of CPS. Reflecting on her experiences, Emma elaborated on the previous point stating that her fluency in thinking was not simple to initiate and hence required teamwork and changing dynamics in her team. She thought that diversity in her team (diversity – in terms of representation of employees from different departments) was essential to her learning and ability to develop ideas because *'the dynamics were changing... we worked together on it and supported each other in the development of ideas.'* This finding implies that the use of teams as part of the creative training may be a useful and effective strategy as it is likely to support and encourage divergent thinking and lead to a variety of ideas. Findings pertaining to the role of teamwork for creativity are examined in more detail in Section 6.4

In respect to the third theme of the thematic analysis – getting more involved after help-seeking, the findings advise that on occasion the development of creative thinking occurs in collaboration with the facilitator (the researcher in this study) as completion of the CPS stages may not be obvious and easy to some participants. The stage of Idea Collection required the application of divergent thinking styles and the development of many and varied problem attributes, but this style of thinking was problematic to some study participants. For example, as mentioned above Jack tried to be fluid in the development of ideas, but this type of thinking was challenging to him. He said that he was not sure about the type of problem attributes required and did not know how to come up with relevant and effective ideas. As a direct result of this, the researcher observed that his involvement in groupwork was changing and even started to decrease. When the researcher came closer to this participant and offered help, Jack shared his concerns and showed the flip chart with a range of problem attributes on it. Some attributes were specific to the business however some attributes were generic, for example 'social media,' 'new menu,' 'new offers'. The researcher offered help and suggested considering more nuanced and more specific ideas. For example, instead of 'social media' the team was encouraged to reflect upon concrete types or forms of social media including but not limited to professional social media, Facebook groups, Twitter accounts and others. The results of observations revealed that the dynamics in the team changed following the facilitator's support, and they started to discuss ideas more actively and record them around the circle. Additionally, Jack was observed with stronger involvement and discussion, and the team managed to complete the task on time. This finding reinforces the importance of the facilitator in the initial stages of creative training as they can resolve concerns, support the thinking process and guide the divergence of ideas.

### *Evidence from the Rest of the Study Population*

In respect to challenges in participation, the data from participant observations says completion of the Idea Collection stage was difficult for some study participants. More specifically, it was associated with less engaged types of behaviour and tendencies of such participants to follow the discussion rather than develop ideas. In some cases (e.g., PT10 from Case One, PT9 from Case Three), it could even give rise to negative emotions (such as feelings of shyness, boredom, involvement in other things). Participants displaying this behaviour were observed across all four case organisations, for example, PT7 from Case Three. The results of participant observations indicated that such participants contributed with no or few ideas (ideas of common sense), were likely to agree with the ideas of others and barely participated in the development of own their ideas. Furthermore, some participants such as PT7 from Case Three seemed to ignore the workshop instructions, and instead of developing ideas/problem attributes, they were ready to proceed to the following stages of CPS. For instance, PT7 was about to roll a pair of die (which is part of the next stage – Idea Generation) as the researcher stopped her and reminded her of the workshop instructions. Finally, the data implies that some of those less engaged participants were also prone to negative affective states and behaviours (e.g., PT10 from Case One, PT9 from Case Three), such as feelings of shyness or quietness which were likely to prevent them from fully engaging in teamwork and thus limit their engagement with the task.

The following section explores the behaviours and themes that emerged in the subsequent stage of the workshop namely, Idea Generation.

### **1:10 pm**

These findings emerged from the second stage of CPS (known as the Idea Generation stage) as it required the selection of two problem attributes out of twelve and divergence of ideas/connections between them. This section is structured around four key themes which emerged from the thematic analysis: (a) creativity in thinking, (b) cognitive states and choices, (c) the use of artefacts, (d) seeking and getting help, and (e) challenges in participation.

### *Evidence from the Seven Study Participants*

Focussing on creativity in thinking, the findings from participant observations indicate that the seven participants were engaged in discussion and teamwork, were capable of demonstrating novelty, originality, and fluency in their thinking. For example, Jennifer, as in the previous stage of CPS, continued her role as a driver of ideas in her group. In line with the workshop instructions, she tried to identify many and varied connections between the problem attributes selected, was recording all ideas on flip charts and tried to encourage other team members to develop more ideas. However, the findings advise that the process of idea generation was not easy for her, and

she was clearly stuck at some point as could not think of any further connections between the problem attributes. Interestingly, in the case of Jennifer, it was apparent that despite being stuck at this stage of the process, she did not want to stop. Instead, she proposed that the team identify more problem attributes and try to explore connections between them as well, in addition to the problem attributes they had already been working on. Whilst her team was working with the other pair of problem attributes, more ideas started to emerge including ideas that were relevant to their initial pair of problem attributes. This allowed Jennifer and her team to finalise their initial range of ideas/connections and generate even more relevant and promising ideas. During the interview, Jennifer referred to these experiences during the HRD intervention. She said that she was grateful to the facilitator for allowing her and her team to remain flexible in their approach to creativity and explore a range of different ideas (rather than to strictly follow the workshop instruction). The implication for HRD practitioners here is that study participants should be encouraged to follow their style of problem-solving in the process of creative development, as it can support their thinking processes and help identify ideas that may not initially be obvious.

In respect to the second theme of the thematic analysis – cognitive states and choices, the data tells us that involvement in the Idea Generation stage can provoke naturally occurring emotions (e.g., laughter, entertainment, education) and they, in turn, can support the process of creative development. For example, Jack and Jim, as members of the same team, were observed to hold an active conversation about the problem, were laughing during the process and were discovering connections between the two problem attributes. These findings are further informed in the interview when Jack said that he enjoyed the process of idea generation and that working with Jim was interesting and educational and was helpful to their ideas, as he said:

*'It was interesting to work with [Jim], because in my role being exposed to marketing and maybe sales is not something that I normally do. So it was interesting and fascinating to see what the restaurant manager would think about the problem, how he would market it... I have particularly good memories about that session.'*

In addition to those naturally occurring emotions, the findings advise that the Idea Generation stage can also give rise to creativity-related emotions. Examples of such emotions are defending states, or the ability to protect personal viewpoints. Such defending states were observed in the case of some participants, for example, Jim. The results of participant observations found that Jim was involved in the development of ideas, but some of his ideas were questioned by members of his team. When this happened, he looked slightly annoyed but started to explain ideas to his team members and clarify why they were relevant and should be recorded on flip charts. He succeeded

as his ideas were recorded and taken into consideration in the following stages of CPS. Another example involved PT13 from Case Three. This participant rolled a pair of die and came up with problem attributes that were loosely connected and provided limited scope for idea generation. When the researcher came closer and proposed that she roll the pair of die one more time, she declined and said instead, *'We are going to have this problem anyway... and these types of problem attributes may exist. We are going to go ahead with the attributes we already have.'* While the exploration of emotions in the process of creative development is beyond the scope of this research the findings illustrate that they are important and accompany the process of CPS.

### *Evidence from the Rest of the Study Population*

In respect to the use of artefacts, the findings advise that the use of the tools for creativity was important and supportive of creative ideas, as they facilitated the emergence of playful attitudes, taking initiative and even application of ideas to a wider scope of work-related problems. Data says that all study participants across four cases liked the pair of die elements of the workshop as they held cubes in their hands, rolled and threw even without any particular purpose. These findings were further collaborated in the interview with PT1 from Case Four who said: *'I liked to work with the cubes [a pair of die], for me it was just enjoyable and helpful... It was a sort of a game, and everyone including myself wanted to play in it'*. In addition to playful experiences, the results of participant observations say that the use of artefacts could enhance motivation of some study participants. Examples of such participants are PT6 and PT7 from Case One, who worked together as one team. During CPS, the researcher noticed that PT6 and PT7 were less focused on the workshop challenge and instead discussed other work-related issues. When the researcher came closer and asked how the team was going on, PT6 said that they rolled a pair of die several times, picked several pairs of problem attributes, and explored connections between them. In this process, they realised that ideas that emerged from this stage of the workshop were relevant to other problems as well. Therefore, they decided to take initiative and try to generate even more creative ideas, in an attempt to address other work issues. This is a good example of how the process of idea generation can turn in new and unexpected directions and bring about an extra value, for participants and potentially – for their organisation. An excerpt from the facilitator's notes supports the finding.

*PT6: The discussion turned in a different direction in the team (and the participant acknowledged that). It appeared that instead of the workshop challenge the participant started to discuss the problem of group engagement – this problem was relevant to her position. She explained that emerged connections between problem attributes inspired her to look at other problems at work from different perspectives.*

In respect to the fourth theme of the thematic analysis – seeking and getting help, the results of the analysis inform that all study participants across four cases were clearly challenged by the Idea Generation stage, some participants requested help and worked with the researcher along the process. As in the previous stage of CPS, Jack is a good example of these findings. Once the Idea Generation stage commenced, Jack was observed to be less engaged and was likely to simply follow the discussion in his team rather than contribute with ideas. When the researcher came closer and offered help, it appeared that Jack did not fully understand the task and wanted to see examples of ideas that would connect two (somewhat loosely connected) problem attributes. The researcher explained the task one more time, picked two random attributes from the circle and started to quickly develop ideas. For example, she chose the attributes ‘seasonal menu with local ingredients’ and ‘Facebook group,’ as potential ideas she mentioned ‘community platform for food lovers in Northern Ireland,’ ‘announcements of seasonal offers’ and others. The findings illustrated that Jack’s involvement in the activity increased following the facilitator’s support and, as a direct result of this step, he became more fluid and was able to contribute to the team with his ideas. This reinforces the finding from the previous section in which it was noted that the facilitator was important in the initial stages of creative training as they help to resolve concerns and support thinking processes.

Focussing on the challenges in participation, the findings advise that completion of the Idea Generation stage was not easy for some study participants. As in the stage of Idea Collection, these participants demonstrated less engaged types of behaviour and even displayed negative emotions in terms of teamwork. For example, PT7 from Case Three (as discussed in the previous section) remained less involved in the development of ideas, was isolated from others and did personal things. She did not respond to the researcher’s offer of help and was clearly not interested in the task. Another example of the less engaged type of participants is PT10 from Case One. She contributed with no or few ideas to her teamwork (ideas of common sense), was likely to agree with the ideas of others and keep quiet rather than get involved in the development of her ideas. Interestingly, in the post-intervention period PT10 had positive views of the creativity workshop, as she said:

*In the beginning, I did not think that you could teach creativity to someone that it does not come naturally too. But with the new techniques learnt I feel it enhanced my way of thinking and seeing things.*

It may be possible that some participants, such as PT10 had different learning styles and needs therefore even passive forms of learning (e.g., little or no contribution, being isolated from teamwork) were effective for creative development. This supports the results of previous



analysis advising that HRD practitioners should be careful when planning and designing the creativity training and be able to identify the creativity characteristics and skills of the participants involved. Another important implication is that researchers should be careful when interpreting the results of training and discussing its impact on creative development. In particular, even seemingly less involved participants can learn effectively and find benefits for personal creativity.

The following section explores the behaviours and themes that emerged in the following stage of the workshop namely, Idea Consolidation.

### **1:25 pm**

These findings emerged from the third stage of CPS (known as the Idea Consolidation stage) as it required the selection of ideas from the Idea Generation stage, consideration of these ideas in relation to the workshop challenge and the development of further ideas. This section is structured around four key themes which emerged from the thematic analysis: (a) creativity in thinking, (b) seeking feedback, (c) motivation, and (d) challenges in participation.

#### *Evidence from the Seven Study Participants*

In respect to creativity in thinking, the data from participant observations says that reflection of creativity-related behaviours, including novelty, fluency and elaboration was inconsistent among the seven participants. For example, Emma and Kerry were clearly struggling with this stage of CSP as they were less engaged and looked uncertain about what they were supposed to do. When the researcher came closer and offered help, it appeared that their teams did not explicitly follow the workshop instructions, and instead of twelve problem attributes in the Idea Collection stage they developed twelve problem solutions and placed them around the circle. The researcher proposed that the team would return to the previous stage of the workshop, develop problem attributes instead of problem solutions and then explore ideas/connections between two problem attributes and the workshop challenge. Subsequent observation revealed that the dynamics in this team increased following the facilitator's support and Emma and Kerry were both observed to be more engaged and contributing to their teams with ideas. This finding reinforces the statement about the importance of the facilitator's support for creativity in the initial stages of training. Namely, the data says that the facilitator's element should be incorporated throughout the stages of creative training as participants may interpret tasks differently, therefore, may require clarifications in the later stages of CPS, such as the Idea Consolidation stage.

In respect to seeking feedback, the findings advise that in addition to help-seeking and clarity, at the Idea Consolidation stage the participants interact with the facilitator for the purpose

of idea evaluation and getting extra information. For example, Jack and Sara wanted to know the researcher's opinion about their ideas/potential solutions and explore whether and how their ideas could be developed any further. In this process, Jack asked the researcher to come and join their team, then he showed the flip chart with ideas on it, shared and discussed current ideas. He wanted to get feedback and make sure that the team was working in the right direction. After getting feedback Jack looked more reassured with the team's progress, continued to work on the task and tried to support his team members in the process of idea selection and idea generation. This finding demonstrates a good example of how the relationship/nature of interaction develops across the stages of CPS such as study participants starting to take the initiative and discussing creativity in their ideas. An excerpt from the facilitator's notes illustrates the finding:

*Jack: The participant asked for the facilitator's feedback (wanted to make sure that the group was working in the right direction). After getting help, the participant returned to group work with stronger enthusiasm. He started to generate ideas/options more fluently, listed all associations as suggested by the facilitator.*

#### *Evidence from the Rest of the Study Population*

In respect of motivation, the findings from participant observations advise that some study participants were intrinsically motivated and thus participated actively across the first three stages of CPS. PT5 from Case One is a good example of such a type of participants. The results of participant observations suggest that he was engaged in the process of idea selection and development, tried to follow the instructions and generate many ideas, recorded all ideas on flip charts provided. In this process, he was in touch with the researcher as he sought feedback and ideas evaluation. He was specifically concerned about the practicality of ideas because, as he said, the workshop challenge was specific to his department, and he hoped to develop a solution that could be implemented in the organisation upon completion of the workshop. Such insight may be practical for HRD professionals, for example, it may be a wise strategy to appoint participants in creative training based on their professional interests and motivation, as this may act as a driver for participation and CPS.

In respect to the second theme of the thematic analysis – challenges in participation, the data says that the completion of the Idea Consolidation stage was not straightforward and was associated with less engaged types of behaviour, tendencies to follow the discussion and teamwork rather than develop own ideas. Examples of such participants are PT10 or PT12 from Case Two who, in contrast with the study participants in other case organisations, did not like to interact with the facilitator and instead tried to ask and get help from participants from other teams. This finding was clarified in the interview with Paul (also employed by Case Two) who

said that some study participants felt nervous during the training, therefore, were intimidated to ask questions and preferred to get help from their peers, as he said:

*'People felt nervous during the training... and also about asking questions because they did not want to be seen silly by asking something. So for me and anybody else, I suppose it just works this way: I would rather wait to get as much information as I can and then ask questions. But I think, we were such a large group during the workshop and did not know each other well. I suppose, people just felt intimidated to raise voices and ask questions. They just felt more confident with other people they knew.'*

This finding may also be important to HRD professionals, particularly for organisations that appoint an external person (the researcher in this case) to lead and deliver creative training. It may be possible that for them, the team or even cross-team element should be used more proactively during creative training as it can increase individual engagement and motivation in learning. Furthermore, this finding reinforces the earlier point about the importance of careful planning and design of creativity training in line with creativity characteristics (including stable and surface traits of creativity) and the skills of the staff.

The following section explores the behaviours and themes that emerged in the fourth stage of the workshop namely, Idea Evaluation and Choice.

### **1:36 pm**

The fourth stage of CPS (known as the Idea Evaluation and Choice stage) required the application of convergent thinking – the selection of ideas from the Idea Consolidation stage and the development of final solutions. This section is structured around three key themes which emerged from the thematic analysis: (a) creativity in thinking, (b) seeking feedback, (c) cognitive states and choices, and (d) challenges in participation.

#### *Evidence from the Seven Study Participants*

In respect to creativity in thinking, the data says that reflection of creativity-related behaviours, including novelty and elaboration was inconsistent among the seven participants. For example, Sara and Kerry were clearly struggling with this stage of CSP as they were less engaged and were likely to follow the discussion in their teams rather than propose their interpretations and ideas for final solutions. When the researcher came closer and offered help, they said that no help was needed. It may be possible that the workshop was a challenging exercise for such participants as it required the application of different, and somewhat opposite types of thinking – divergent and convergent thinking types in one session. These findings were further developed in the

interviews with the overall study population when PT7 and PT9 from Case Three said that the Circle of Opportunity exercise was not simple and easy to follow. Hence, HR practitioners need to be cognisant of the content and structure of the creative exercises developed to ensure participants remain engaged and enthusiastic about the creative task in question.

In respect to the second theme of the thematic analysis – seeking feedback, similar to the findings in the Idea Consolidation stage the results of analysis advise that the nature of the interaction between participants and the researcher changed as opposed to the initial stages of CPS and remained in a form of collaboration and dialogue. As in the previous stage of CPS, Jack initiated contact with the researcher and hoped to get additional feedback and recommendations on team solutions. Similar steps were taken by other participants, for example, Jennifer and Paul. In all these inquiries, study participants wished to get the researcher’s opinions and feedback, rather than get explanations about the task. This finding offers practical implications for HRD practitioners and trainers of creativity, particularly the role of the facilitator is crucial throughout the stages of CPS. However, the nature of their support and interaction with trainees is quite transformative, such as it requires explanations and clarity in the initial stages of CPS and collaboration and feedback in the later stages of creative training.

#### *Evidence from the Rest of the Study Population*

In respect to cognitive states and choices, similar to the previous stages of analysis the data tells us that involvement in the Idea Evaluation and Choice stage can provoke naturally occurring emotions (e.g., laughter, entertainment) which, in turn, can support the process of creative development. For example, PT4 and PT5 from Case Four, as members of the same team, were observed to hold an active conversation about the problem solution, were laughing along the process and making jokes. In addition to naturally occurring emotions, the findings advise that involvement in the Idea Evaluation and Choice stage also could give rise to defending states, such as the ability to prove own right and protect personal viewpoints. This finding is similar to the Idea Generation stage as both stages required the study participants to develop ideas/solutions and get them confirmed/accepted by their teams. Such defending states were observed in the case of some participants, for example, PT4 and PT5 from Case Four. The results of participant observations inform that PT4 was trying to champion his thoughts and ensure that they were incorporated into the solution. In this process, PT4 looked engaged and entertained as he tried to explain the relevance of ideas to the team members and clarify why they were important. Other team members questioned his thoughts, but PT4 took a lead and clearly won as his thoughts were included in the solution development. An excerpt from the researcher’s notes illustrates this finding:

Defensive states (e.g., PT4): *'The participant is actively engaged in discussion:*

- *The number of hotels is increasing in Belfast (PT4)*
- *They are not! (PT5)*
- *I tell you, more and more hotels appear. Therefore, the solution should consider... (PT4)'*

The results of the analysis also advise that completion of CPS can initiate some new, perhaps altruistic behaviours (e.g., helping other teams). An example of such altruistic behaviours is PT13 from Case Three, who eagerly offered help with problem-solving to some peers from other teams (i.e., PT5, PT6) as those struggled with their creative solutions. PT5 was not involved in the previous stages of the creative workshop, as she said: *'I cannot see how this task can be completed. I am wondering if anybody here was able to do anything and develop ideas?'* She was clearly surprised when PT13 said that her team managed to develop a range of ideas. PT13 continued and asked PT5 to read aloud the problem attributes the team was working with and the ideas developed. After this, PT13 recorded the problem attributes on her flip chart then started to propose and generate problem ideas for PT5. Such collaboration between these two teams was observed to be beneficial for PT5, particularly she recorded all ideas, became more engaged with her team members, and even used ideas for the final solution. This is an interesting finding suggesting that HRD professionals should consider the use of cross-team cooperation as it can support collegiality and communication in the process of creative problem-solving and result in more ideas. Although the study into cognitive states and choices in the process of creative development is beyond the scope of this research, the findings illustrate that they are important and accompany the process of CPS.

In respect to challenges in participation, the data says completion of the Idea Evaluation and Choice stages was associated with difficulties in engagement and reflection of creativity-related behaviours. Particularly, some study participants were less involved in the Idea Evaluation and Choice stages as they demonstrated less engagement in teamwork and discussion, were likely to follow the discussion rather than enrich the process of solution development. The findings inform that this type of study participant was consistently less engaged across the stages of CPS. However, there were some exceptions. For example, PT2, PT4 and PT10 from Case Two or PT12 from Case Three turned more active and involved in the stage of Idea Evaluation and Choice than in previous stages of CSP. For instance, they participated more in group discussions, shared thoughts about how creative solutions could be enhanced and be more relevant. It could be that the 'Circle of Opportunity' technique was difficult for less engaged participants and as a result of this, they were more predisposed to convergent thinking (as it required less cognitive effort) than divergent thinking. This finding could be valuable to HRD practitioners, for example, further effort should be taken to develop the creative exercise in a way that it incorporates a

simple structure (such as fewer stages of creative problem-solving) and trains only one type of creative thinking (divergent thinking or convergent thinking) rather than both types.

The following section explores the behaviours and themes that emerged in the final stage of the workshop namely, Idea Elaboration and Presentation.

### **1:45 pm**

These findings emerged from the final stage of CPS (known as the Idea Elaboration and Presentation stage) as it required the refinement of solutions and presentation in front of other teams and the facilitator. These findings were evident in the overall study population. One study participant from each team was encouraged to volunteer and present solutions; they were particularly tasked to explain creativity in their solutions. Out of the seven study participants who completed all stages of the HRD intervention, only three participants presented team solutions (some participants were members of the same team or did not want to present). This section is structured around two key themes which emerged from the thematic analysis: (a) creativity in presentations and (b) recognition of creativity by others.

In respect of creativity in presentations, the findings advise that the creativity workshop facilitated creative thinking among the three participants. Namely, they could explain creativity in their answer, describe team creative journey and challenges, and clarify how their solutions could be applied in their organisations. For example, Jennifer started her presentation with the words, *'We were working on the creative task hence I am going to present this creatively.'* She continued with the description of the workshop challenge and several problem attributes that the team developed and worked with. She said that the team rolled a pair of die several times because they wanted to get more ideas and more thoughts. Then, she referred to ideas which, in her opinion, were the most creative and interesting. She said that based on these ideas her team developed three main solutions and some solutions, in her opinion, were very crazy hence creative, as she said: *'Our ideas are very crazy! And creative! So, we worked with the attributes...'* Upon completion of her presentation, she was open to questions and feedback, was able to give extra clarity and information. This style of presentation was similar to other participants, for example, PT1 from Case Four. He was also able to refer to the team creative journey, a range of ideas from the idea generation stage and the final solution. Some interesting observations emerged in the presentation of PT1. Once the presentation was finished, some study participants in Case Four mentioned that the solution was not creative and already existed in the organisation. In response to this comment, PT1 was able to quickly gather his thoughts and argue what different was about the solution, develop and present even more details. This is an interesting example of how the creative workshop could initiate the thinking process so that study

participants were capable to use and apply their creative thinking (e.g., elaboration, novelty) when necessary.

In respect to the second theme of the thematic analysis – recognition of creativity, the data indicate that completing the stages of CPS may give rise to ideas that may be recognised by others as creative. A good example of this finding is Paul. In the stage of Idea Elaboration and Presentation, he referred to the entire creative journey of the team, then offered some solutions that emerged from the process. Once finished, other study participants started applauding, some even commented: *‘Wow, how did you come up with such solutions?’* (PT11 from Case Two). Similar reactions were identified in other teams, for example when PT13 from Case Three finished her presentation of creative solutions, other study participants were clearly impressed and applauded. They also appraised creativity in the solution as PT2 said: *‘This is really creative! Well-done, I like your idea.’* Arguably, these examples of recognition and appraisals by others may be regarded as a case of creative development. Hence, it may be assumed that the creative workshop held some change on the creative development of some workshop participants.

In summary, these findings explored the nature and process of creative development. The data illustrates that the creative workshop could give rise to creativity in thinking (in terms of novelty, fluency, originality, elaboration), initiate relevant cognitive and behavioural processes (in terms of teamwork, emotions, engagement with artefacts). It could also result in recognition and appraisals of creativity by others. However, the results of analysis advise that the process of creative development was not simple to some participants, as they struggled with the task, the incorporation of several types of creative thinking along their creative journey (divergent and convergent thinking types), participation in teamwork and discussion across all stages of CPS. In this process, the facilitator’s support was essential for study participants as the researcher could clarify the task, resolve concerns or offer feedback. Such insights may be useful for HRD practitioners, for example, attention should be awarded to the structure and content of creative training, in order to support communication, motivation and task engagement. These findings in terms of their practical relevance to HRD practitioners are discussed in Chapters Seven and Eight.

## **6.4 RO: To Investigate the Creativity Enabling Forces in the HRD Intervention Which Support Creative Development**

This section is structured around three key themes which emerged from the thematic analysis: (a) teamwork supports, (b) the facilitator’s support, and (c) the use of artefacts. Findings around these three themes are explored in detail below.

#### **6.4.1 Teamwork Supports for Creative Development**

With respect to teamwork supports, the data tells us that working in teams is important for CPS as it (a) facilitates individual learning, (b) enhances confidence in creativity and (c) leads to creative ideas/solutions. However, working as a team may be associated with challenges such as participation and communication. These findings are explored throughout this section.

##### *Evidence from the Seven Study Participants*

Starting with individual learning, the findings advise that the teamwork element helps study participants to learn about creativity from multiple perspectives and this, in turn, translates into individual work practices. As noted by the seven study participants, they enjoyed working as a team as it allowed them to get greater access to ideas and learn from fellow participants, such as how others would deal with the problem under investigation. For example, Jim said, *'It allowed me to be able to see how other people would deal with certain scenarios and then as worked together in the end to get one final result.'* Furthermore, for Jack learning about how to use other people's ideas as well as his ideas was one of the biggest things that he got from the training. The findings above had shown that Jack was involved in teamwork and together with members of his team, tried to develop creative solutions. Hence, he said that working with his team members on creative solutions helped him realise that he enjoyed his role as a team member hence decided to use teamwork more in his job role. As a result of this, he started to participate in head-of-department meetings in the post-intervention period and explore solutions for other work problems with his colleagues, as he said:

*'During the workshop, it was understanding that it is not just me who have all ideas, I mean just my ideas. It is using other people's ideas as well to help develop the mine and also to try to come up with better solutions because certainly in the hotel, the idea of a team is very important... Now I participate in HoD (head-of-department) meeting, and together we try to resolve other problems at work.'*

In respect to the second theme of the thematic analysis – confidence in creativity, the results of the analysis indicate that working as a team can increase belief in personal creativity and motivation. A good example of this finding is Sara who was seen during the training as an active participant in her team. She said that there was a vibrant work environment during the training, for example, she could raise her voice, be heard, and listen to the voices of other team members, and this, in turn, supported her creative development. She liked being a part of her group, as she thought that her ideas/thoughts were valued by the team. These findings are further supported in the participant observations which advise that Sara was engaged across the stages of CPS, contributed to her teamwork with ideas and thoughts about creative solutions. Sara thought that



working as a team helped enhance her confidence and realise that she could be creative, as she said:

*'During the workshop, within the team, I was able to put forward my ideas and be heard and I was able then to also listen to what the other team members in my team thought. I was surprised to see how my ideas were valued by others and considered seriously... I think this helped me realise that my voice was important and that I can be creative as well.'*

In respect to the third theme of the thematic analysis – creative ideas/solutions, the findings indicate that working as a team can generate more and better creative outcomes. Good examples of this finding are Jennifer and Paul who tried to take the initiative in their teams during the training and encouraged others to speak up. They thought that having people from different departments and have different job roles in the same team, helped to get more involved in CPS, develop a more creative work environment, and generate more ideas. As noted by Paul, *'If there are more people to work with, for me anyway, I am more productive and work a lot better.'* In addition to these findings, some other participants thought that teams could create a feeling of a shared problem and responsibility, and this resulted in greater motivation and creativity outcomes. For instance, Kerry said that she did not consider herself creative prior to the creativity workshop hence was not confident about her ability to complete the task and develop creative ideas for the workshop challenge. She liked that she was not alone in the process of CPS; having other people in the team and working with them along the creative journey allowed her to feel more secure and confident in the development of ideas. In her opinion, the feelings of a commonly shared task and shared responsibility were important driving forces for her in the process of training in creativity, as she said:

*'It was definitely helpful to work as part of the team because I was not alone – there were people from other departments as well. If I have not done that workshop, I would have gone away thinking like... Okay, I heard something about creativity, I did something... but I would not know whether I was creative in my approach, would doubt myself. It was good for me to work with the team, have a common problem and responsibility, get other people involved – this certainly helped my learning.'*

### *Evidence from the Rest of the Study Population*

In respect to challenges in teamwork, the results of the analysis advise that working as a team may not be simple for some participants and be associated with barriers. For instance, the results of participant observations advise that there may be communication issues between study participants and this, in turn, may diminish learning about creativity. An example of this finding is one of the teams in Case Three. This team was formed by three study participants, who in line

with the findings in Section 6.2, were not well involved in teamwork, contributed with little or no ideas and were likely to do personal things (instead of working on the workshop challenge). During the training, only two study participants in this team communicated with each other whilst the third participant did not. When the researcher came closer and offered help, it was apparent that those two participants discussed personal matters instead of the workshop challenge. The third participant did engage when the researcher offered help, and she continued to do personal things (navigating on the web) following the researcher's support. This finding is of value to HRD practitioners, who should note that further effort may be needed to ensure a fit between study participants as members of a team. It may be possible that screening on team roles prior to training could address communication issues between study participants and eliminate barriers.

#### **6.4.2 The Facilitator's Support for Creative Development**

##### *Evidence from the Seven Study Participants*

In respect of the facilitator's support, the data tells us that styles of supportive leaders/facilitators in creativity are important in creative training. For the seven study participants, such styles were associated with (a) expertise and knowledge about the subject (creativity), (b) an untraditional approach to training, and (c) facilitator's characteristics. For example, the results of the analysis advise that Emma required the facilitator's support to complete the stages of CPS and was likely to become more involved in teamwork following this interaction with the facilitator. Emma commented that she was impressed with the degree of knowledge the researcher held about the subject and how effectively this knowledge was communicated to study participants. In particular, she liked the use of analogies in the training approach and the way how complex issues (CPS, divergent and convergent thinking styles) were explained to the study population, with the use of a simple language. She thought that this approach was contributory to her learning and gaining knowledge about creativity, as she said:

*'You did it so well on the actual day. I liked those analogies... I think it was an animal, was not it... a piece about animals and how humans required creativity in the past. You were different to lectures or teachers, I could see that you researched a lot about creativity, and you could actually make me think that anybody could be creative.'*

Similar views were shared by other study participants. For instance, the results of the analysis indicate that Jack required the facilitator's support to get clarity on CPS in the early stages of the training and in the later stages of the training – to get feedback on creative ideas/ solutions. Jack said that the researcher's teaching style was helpful to his creativity, he particularly appraised

the freedom element in the teaching strategy. As he said, he appreciated that there were no borders and strict rules and directions about how to be creative; and instead, his team was allowed to follow their way of learning and have periods of trials and errors. He thought that this way of learning was effective for him as he said:

*'You were brilliant because you did not try and guide us down anyone's path, you did not try to lead us in a certain direction, you allowed us to stay and try more creative ideas by ourselves. You have been there and your way of leading us was really beneficial to our learning.'*

#### *Evidence from the Rest of the Study Population*

In respect to facilitator's characteristics, the findings advise that enthusiasm about the subject (creativity), charisma, and an ability to provide help emerged as important characteristics of creativity facilitators for the overall study population. For instance, PT10 from Case One said that she initially thought that creativity was not possible to teach. However, her opinion changed as she completed the creative training and the stages of CPS. She thought that the ability of the facilitator to encourage anyone to be creative and provide help with creative thinking, when necessary, were among the key factors that helped her learn about creativity, as she said:

*'But now I see that it is possible to teach creativity, I very much liked how you did it... you guided the process of creative development quite great and nicely... and anybody who needed any advice or help, you were all hand to make sure they got that.'*

The results of the analysis however highlight that use of excessive help and support in the facilitator's style may not be sufficient for some participants. An example of this finding is some study participants from Case Two. These participants were members of the same team, and as they said during creative training, they experienced problems with the Idea Consolidation stage. Instead of problem attributes, they developed problem solutions in the Idea Collection stage, therefore, struggled with the process of solution development. In such cases, collaboration with the facilitator in the initial stages of CPS (e.g., Idea Collection or Idea Generation) would be essential to resolve concerns and comply with the training instructions. However, the results of participant observations advise that they did not want to engage with the facilitator, for example, they started to get quiet and less engaged when the facilitator offered help. Instead, they preferred to interact with other teams and try to resolve concerns with them. In the end, they received help from the facilitator and managed to complete the process of CPS. These findings advise that HRD practitioners should be mindful and aware of such issues, therefore, behave effectively. For example, they could think of a more comprehensive HRD programme (involving

more than one HRD intervention) and spend more time on building trust and social capital with study participants to become a part of their teamwork supports.

#### **6.4.3 Use of Artefacts for Creative Development**

The results of participant observation advise that artefacts were supportive of creative development, as they facilitated divergent thinking in the initial stages of CPS and convergent thinking in the later stages of CPS. The data implies that all study participants across the four cases, irrespective of their type of engagement in CPS, tried to roll and play with a pair of die in the Idea Generation stage. They all seemed interested to roll and come up with a pair of problem attributes and to use in the later stages of the workshop. As explained by some participants on the actual day of training, such tools helped to energise team thinking and initiate playful attitudes. They thought that rolling a pair of die was just funny; hence, they liked to hold cubes in their hands, roll and throw even without any particular purpose. In addition to playful attitudes, some study participants thought that the artefacts could transfer in individual work practices and be used for idea generation purposes in the post-intervention period. For instance, upon completion of creative training, Emma started to use the artefacts in the brainstorming sessions with her team members. This finding is a good example of the connection between the training process and transfer of training in own work, as Emma said:

*'Since the workshop, I have had group meetings with the team and we all brainstormed creative ideas and how we would go about that. We use the same structure, techniques, and instruments you showed us on the actual day of training. I use these materials whenever I have meetings and discussions with the staff.'*

In respect of other artefacts used on the actual day of training such as flip charts and markers, they also proved to be important and supportive of creativity training. The results of participant observations advise that such artefacts helped to structure the thinking of study participants, keep their ideas/thoughts in one place and visualise the thinking process. Evidence of the value of such artefacts to study participants was PT13 from Case Three. Upon completion of the creativity workshop, PT13 asked the researcher to keep the flip chart for her records. She explained that some valuable ideas were recorded on the flip chart, and she intended to return to those ideas in her free time and work further. Such findings should be considered by HRD practitioners when planning and designing training in creativity, for example, attention should be awarded to the use of artefacts as they appear to act as resources that support the process of training as well as transfer in individual work practices.

In summary, this section explored creativity enabling forces in the HRD intervention which support creative development. The findings indicate that three main forces are important in the process of creative development: teamwork supports, the facilitator's support, and the use of artefacts. However, it also noted that HRD practitioners should be mindful of several barriers, such as issues of fit between study participants as members of a team, the nature of the relationship between the facilitator and study participants. The following section will explore the implications of the HRD interventions on individual and organisational performance in detail.

## **6.5 RO: To Explore the Impact of the HRD Intervention on Individual and Organisational Performance**

This section is structured by the type of impact of the HRD intervention on performance: (a) individual performance and (b) organisational performance. Findings around these two types of influence are explored in the sections below.

### **6.5.1 Impacts of the HRD Intervention of Individual Performance**

In respect of individual performance, three key themes emerged from the thematic analysis: (a) motivation, (b) feelings of empowerment, and (c) incentives for creativity.

#### *Motivation*

Starting with motivation, the data tells us that involvement in the HRD intervention can increase intrinsic motivation of study participants and result in more creative outputs at work. The seven study participants referred to intrinsic motivation in terms of curiosity, personal interest, and commitment to creativity. For instance, the results of the analysis advise that Jim held low views on his creativity prior to the HRD intervention (see Section 6.1.3). Upon completion of the training, he said he became more interested in creativity and felt more curious about how creative thinking can be applied to other problems at work. He thought that being creative could bring about value in the process of problem-solving as it helped identify ideas/solutions that may not be obvious. Similar views were expressed by other study participants, for example, Jack and Paul who said that they enjoyed being creative during the creativity workshop and wanted to see more creative thinking in daily work. As a result of this, they started to identify opportunities for creative thinking in other problems at work and resolve them creatively. In particular, Paul felt that his involvement in problem-solving even allowed the organisation to be more efficient in the use of resources. These findings indicate a good example of transfer of training in personal work approach due to increased intrinsic motivation, as these study participants said:

Jack: *'Not only me but everyone in the hotel seems to have tried to use what we learnt in the workshop to change how we think about problems. One of the most recent ones done with the problem of employee engagement... so I wanted to try and use this sort of thinking outside the box and apply the same kind of structure that you did in the workshop in the process of problem-solving.'*

Paul: *'since the workshop, I went back to the [restaurant] and I took it on myself to come up with a strategy to sell water... I am trying to kind of work out how many different ways we can do something to be more beneficial in terms of reduce-reuse-recycle the water...it helped me be more creative from the workshop. I came up with a kind of a formula of how to sell the water in a sufficient way as possible which was very nice. Since when I arrived there, they did not sell water at all, but within a week of introducing that new formula of how to sell the water they oversold other water and had to borrow water from the main hotel to build the sale.'*

In addition to curiosity and personal interest, the data indicate that some participants became more motivated in creativity and even committed to the application of creative thinking in personal work. For instance, Sara said that she had a long-standing problem with the customer reward programme and points allocation. After completing the training, she found herself interested in creativity and wanted to try new creative techniques for that problem. In the interview, she looked enthusiastic about this issue and said that she was able to rectify the problem and, subsequently, her work outcomes became better. Furthermore, she said that due to her solution she got trust from her manager that she could be creative and became even more confident in her creative skills. As a result of this, she was motivated in doing more creative work at work and the application of her skills, as she said:

*I have had an ongoing [problem] for a couple of months... It is just more me trying to take initiative and to say okay. There is always going to be a solution... there would be corporates that were working on their [loyalty] points every time they stayed with us, for months every time a guest checked out, I would have to email certain invoices to allocate those points, and I finally figured out why they were not getting the points, was able to rectify that. It is just little things like that ... that taking time to try to be creative and figure it out. But I liked the process and will try to do more creative work in the future.'*

### *Feelings of Empowerment*

In respect to feelings of empowerment, the results of the analysis advise that transfer of training due to the HRD intervention can be associated with feelings of achievement and recognition at work. Jennifer is a good example of this finding. She held positive views on her creativity prior to the intervention (see Section 6.1.4) however felt that she learnt about new creative techniques due to the training. As she said, in the post-intervention period, she was working on the problem

that sought to enhance the health and wellbeing (H&W) of the staff and eventually launched the H&W programme. Whilst developing this programme, she used some techniques ('Circle of Opportunity') from the workshop and tried to incorporate out-of-box thinking. After the programme was launched, managers in her organisation nominated her for the Hotel Hero Award through the Northern Ireland Hotels Federation, as they thought that it was brilliant and contained creative elements. Jennifer looked happy and honoured as she received the award, and her efforts were recognised. This finding could be valuable to HRD practitioners, for example, effort should be taken to facilitate the transfer of training in the post-intervention period, by providing opportunities for staff to apply their knowledge in creativity and recognising their effort, as Jennifer said:

*'I have no words... I got nominated for the Hotel Hero Award through the Northern Ireland Hotels Federation. This hotel nominated me for that award and part of the reason for the nomination was to do with the creative approach that I have taken to the health and wellbeing of the staff. And creativity that I put into that. I received the award; I am so happy! I will avail even more opportunities at work and try to look at things differently.'*

### *Incentives for Creativity*

In respect to incentives for creativity, the findings advise that motivation and interest in creativity should be supported by organisations as one-off interventions may have a short-term effect on creative behaviours. The seven study participants clearly said that they required incentives and organisational support to sustain their motivation and interest in creativity. For example, Paul thought that rewards, in the form of financial incentives could help him to be more involved and more encouraged to apply creativity in his work. After completing the training, he found himself more interested in creativity and even applied his creative thinking to resolve some problems in his organisation (see Section 6.5.1). However, he thought that his interest in creativity may not be sustained in the longer term. The key reason for his argument was, that there were limited opportunities for creativity and problems with idea implementation by senior management. As he said, *'It is such a large organisation... if you come up with an idea, okay, how far with the change go? People can recognise that it was your ideas, that you have been creative, but this does not help.'* Hence, he thought that if incentives were in place along with opportunities for the staff to reflect creativity, there would be a purpose in creative thinking and a stronger willingness to do creative work. This finding should be considered by HRD professionals, particularly they need to ensure that participants are incentivised and provided with opportunities to apply their creativity at work, as Paul said:

*'If there would be more incentive or reward, if people were more encouraged to be creative, were more incentivised somehow to be creative. I think it would help coming out and people would be more creative if we had more opportunities to be creative as well.'*

In addition to rewards in the form of financial incentives, some other study participants thought that even non-financial incentives would help their creativity. For example, Sara liked her experiences of teamwork during the CPS and that she was able to raise her voice and be heard (see Section 6.4.1). She found those experiences during the CPS to be useful for her creativity, for instance, she was able to resolve a long-lasting problem and get recognised by her line manager. Hence, she felt that if there were opportunities to speak up and share thoughts about creativity and development, this would generate a more supportive work culture and result in more creative behaviours, as she said:

*'If we felt like we were encouraged by the management team to participate...if they were like every month or so ... this is your time for your voices to be heard, if you could think of something more creative to make it yours and make it work for yourself, that would be better... and more supportive work culture. If they just encourage to do this more and people think.'*

Finally, the study participants also thought that continual training in creativity would be another essential incentive for them. For example, Jack said that he was often unaware of the role of creativity in the organisation, therefore, did not prioritise creative thinking in his job. Upon completion of the creativity workshop, he thought that he wanted to be reminded of the role of creativity in the organisation and participate in training opportunities. Similar attitudes to training were reflected by Emma who thought that the priority of creativity should be better articulated by the organisation. She said that her organisation delivered training in general management and operations. However, she thought that the focus of such training should be different and consider programmes that could enhance work outputs, such as training in creativity, teamwork and collective problem-solving. These findings should be considered by HRD practitioners when planning and designing incentive programmes for creativity. In particular, continual training and development opportunities should be a part of such programmes, as they can increase awareness of creativity and act as an organisational incentive for the staff, as Jack and Emma said:

*Jack: 'Basically – just to be aware of it – that is the big thing I took away from it. There is not always just one simple solution, and it does not have to be right from there. I need to remember that it is always possible to come up with a resolution, but that resolution may not always be obvious.'*



Emma: *'Probably more workshops, more team meetings. They do have workshops now about to get to know about the company and know about each other. But I think it should be more about how to work as a team, how to solve problems as members of a team, this would help – anything that would help my career, develop myself.'*

## **6.5.2 Impacts of the HRD Intervention on Organisational Performance**

In respect of organisational performance, three key themes emerged from the thematic analysis: (a) business efficiency, (b) flow of ideas, and (c) barriers for creativity.

### *Business Efficiency*

Starting with business efficiency, the data tells us that problem-solving in the HRD intervention can result in the implementation of ideas and influence business efficiency. A good example of this finding is Jack who said that during the creativity workshop his team was able to generate some promising ideas. He said that those ideas were further developed in the post-intervention period and eventually implemented in the form of a new marketing campaign. This marketing campaign aimed to attract more local citizens to the hotel and included elements of advertising, promotion, and customer service. Jack said that after launching this marketing campaign, the hotel saw a greater flow of local customers, better guest attendance and improvements in overall business efficiency. This view was confirmed in the interview with Jack's HR Manager who agreed that the implementation of ideas from the workshop was beneficial to the business. This finding is a good example of transfer of training (the HRD intervention) which, in addition to individual efficiency as discussed in the previous section, can also impact business performance, as Jack and his HR Manager said:

Jack: *'Using the ideas and feedback from the workshop we have been able to come up with marketing techniques and a new marketing campaign. We have been using social media a lot more, we have been engaging with staff a lot more, we have been doing tasting menus, we [have] got vouchers deal out at the minute. So, we have used different things that we learnt at the workshop, to try and implement those into the day-to-day runs at the hotel so that is absolutely brilliant for us.'*

HR Manager: *'We went with a new marketing campaign and some of the deal-type websites...something that we worked with during the creativity workshop to deal with the work problem... And this made a significant increase in the number of local residents using the restaurant.'*

In addition to changes in business efficiency, the findings advise that completion of the HRD intervention and implementation of creative ideas was associated with the emergence of new forms of rewards in the organisation, and those aimed to support creative thinking of the staff. As

explained by the HR Manager, rewards did not exist in the organisation before, and they were in the form of financial support, such as service charges on guest bills. They were launched to recognise the creative effort and encourage staff creativity, as HR Manager said:

*'Since the new marketing campaign and techniques, we started to do new rewards for our staff. Things like our service charges that put on guest bills... so obviously the busier the restaurant is the more a service charge that our associates get. And it was something that we already have not had in place. So obviously with the restaurant became busier that would increase which was great for them. We thought that those rewards would also incentivise our staff and encourage them to do more creativity.'*

This finding should be considered by HRD professionals, particularly they should be powerful and influential in their role to be able to facilitate the transfer of training at the level of organisation and incentivise creativity of the staff.

### *Flow of Ideas*

In respect of flow of ideas, data says that completion of the HRD intervention can give rise to new forms of work, such as problem-solving at the top-level management which aims to resolve problems at the lower levels of management (e.g., top-down emergence of creativity). A good example of this finding is Jack who said that his organisation started to organise and hold head-of-departmental meetings in attempts to resolve internal organisational problems using creative thinking. Jack said that such meetings were being held monthly and involved senior managers from different departments. They were brainstorming ideas together, discussing thoughts using teamwork and the structure from the workshop and developing solutions. He said that the most recent problem was around employee engagement, such as how to make the staff more engaged and work together. Jack felt that following such meetings and problem-solving process, some ideas were eventually launched and saw an increase in employee engagement scores. Hence, it may be assumed that the creative workshop held some positive effect on the emergence of new practices of problem-solving at work and impact on staff efficiency, as Jack said:

*'Each month we have a head-of-department meeting and we use that structure you told us to try resolve problems and the most recent one was with employee engagement. I have not had any success in coming up with a creative solution, together as a team we definitely have. We have seen that as our employee engagement scores have risen since we've done the task, so that was really good for us as a hotel.'*

In addition to the top-down emergence of creativity, the findings advise that completion of the HRD intervention can encourage study participants at lower levels of management to explore and resolve problems at the upper levels of management. Emma is a good example of this finding who

said that she became more enthusiastic about creativity upon completion of the HRD intervention. As a result of this, she came up with an idea to have and provide opportunities for staff entertainment. She said that she wanted to explore this idea of staff entertainment with her team because she liked the idea of teamwork during the HRD intervention. Emma said that her team did not know much about creativity, hence she prepared and delivered the creativity workshop (similar to the HRD intervention) herself. In this process, she used the same materials and artefacts as the researcher did. Emma felt that she was successful in training her team; particularly, they were all able to brainstorm and explore ideas, select the best ideas, and develop the best ideas in the final solution. Emma said that the ideas of her team would soon be launched by her organisation (Case Two), and she was obviously pleased by this fact. It may therefore be assumed that the HRD intervention held positive effects at the emergence of new forms of work, such as creativity from both lower and top levels of management, as Emma said:

*'The creative idea I came up with after that creativity workshop was... having and providing entertainment for the staff in our hotel; together with my team we are working on that at the moment, so it is going to go live in October [2019]. I am very enthusiastic about this idea, and the fact that we eventually developed it with my team! You know, if I have not done the workshop, have not been involved in something like that, that would not be happening you know: I would not have come up with an idea to do that and would not be able to train my team and explore this idea together.'*

### *Barriers to Creativity*

In respect of barriers to creativity, the findings advise that barriers to creative development can be associated with (a) low consistency in terms of support of creativity at work, (b) communication problems across levels of the hierarchy, (c) communication problems at the individual level. In terms of low support of creativity, Emma commented that she never received feedback over the results of their work. Instead, she engaged in creativity purely because her work practices became better and because the team became productive. This is an important consideration for HRD practitioners, particularly engagement and interaction with the workshop population over time is essential to support the natural inclinations of managers in relation to creativity.

*'I don't know if they do [recognise creative effort] to be honest but I just can see that my daily work is better. I have never got feedback; as long as the team works, it is all good.'*

In explanation of the low support for creativity in the post-intervention period, the General Manager from Case Three stated that the HRD intervention failed to raise any interest in creativity. More specifically he thought that people returned to their daily work after the HRD

intervention and did not show any further interest to apply creative thinking at work. Hence, he said that any future initiatives or creativity training were beyond the organisational focus. These views were however opposed by some study participants from this organisation, such as PT1 and PT8 who said that they remained committed to the workshop challenge and even implemented some ideas in their daily work. Hence, it may be that there was a discrepancy between participants and managerial perceptions of training and transfer of training upon completion of the creativity workshop. As a result of this, the aforementioned General Manager could not identify any change in staff creativity and did not think of any further initiatives to support their learning. Consequently, it may be proposed that HRD practitioners are instrumental in this situation. They should be influential and powerful in their job role to support the emergence of an HRD strategy of an organisation and promote a dialogue between individual and organisational levels of management. Otherwise, this finding reinforces the risk of taking a short-term perspective in relation to HRD interventions linked to creativity which in addition to creating individual-level barriers (see Section 6.5.1) may distance managers from creativity prioritisation in daily practices, as the General Manager of Case Three said:

*'Directly after the workshop, they said that the workshop was good, creativity was an interesting concept, but they were just back to their work. To my knowledge, they did not push forward any ideas or solutions after the workshop.'*

In respect to the second theme in the thematic analysis – communication problems across the hierarchy, the findings advise that communication barriers between organisational levels can undermine individual motivation and creativity flow. For instance, Paul thought that he liked being creative during the training. However, he felt that organisational interest in creativity was not effectively communicated to the staff, and for him, this issue was linked to the size of the business and scarce encouragements of the workforce to engage in creative thinking at work. For instance, there were issues with poor recognition of creativity by senior management and difficulties to deliver creative ideas from the lower to the upper levels of management. In the opposite direction, Paul commented that creativity flow from the upper levels of management was inhibited by poor communication mechanisms and such barriers in communication were likely to discourage managers to behave creatively at work. This consideration is important to HRD practitioners, particularly issues of clear communication and encouragements of creativity across the organisation may be central to address barriers in creativity and encourage involvement in problem-solving at work, as Paul said:

*The same as the other way – if someone at the top of kind of the head office team comes up with a new idea or whatever – it is not always filtered down correctly to the rest of the group so being creative does not show across the whole group, eventually, just a small area but not in a way that I think would encourage people to want to be more creative, develop things further.'*

In respect to the third theme in the thematic analysis – communication problems at the individual level, the findings advise that training in creativity can be problematic for study participants who experience challenges with communication and dialogue with each other. This finding was explained by the HR Manager from Case Four. She said that the HRD intervention did not benefit employees, for instance, she could not identify the impact of training on their managers and how creativity could be integrated within individual practices. She felt that it was challenging for the staff to learn, as there were certain barriers in training for them, namely:

- Problems in communication and shared understanding between employees. HR Manager believed that the staff had limited motivation to interact during the intervention because they had problems reaching a mutual understanding and sharing ideas/opinions for problem-solving at work. Therefore, the teamwork element of the intervention was of a low value to them.

- Because of the communication problem, the duration of the HRD intervention was perceived as an issue. The HR Manager commented that a one-time workshop was not sufficient for managers to embrace creativity therefore they did not start to apply creativity at work. It was felt that at least four to five interventions would improve communication and have a stronger influence on employee attitudes to creativity.

- Problems in teamwork and collective problem-solving. The HR Manager added that the organisation ran another training problem called 'Train the Trainer' which has been focused on teamwork aspect and already had an impact on employee behaviours. Through trust-building, story sharing and common language, this training initiative was capable to raise trust in the relationship between the workshop participants and facilitate their interaction at work. Such findings may be practical to HRD practitioners, for example, a series of HRD interventions or a training programme can be considered for organisations that report problems in teamwork and collective problem-solving. For example, the training programme could involve a range of developmental exercises which introduce creativity as a way of problem-solving at the level of team and incorporate a range of techniques allowing managers to build trust and freely exchange ideas.

## **6.5 Chapter Summary**

This chapter explored the potential of the HRD intervention to enable creativity and lead to cognitive and behavioural change. The chapter examined the behavioural and cognitive processes

of study participants who completed the stages of the creativity workshop and the outcomes of the training. In summary, the HRD intervention was perceived as a practical way to increase one's knowledge of creativity; however, its impact on individual creative behaviours was quite nuanced. For example, some managers commented that they started to behave more creatively in the post-intervention period whilst for others, the effect on creativity was less obvious.

Several forces in the HRD intervention and the work environment were recognised to deliver a strong impact on employee engagement in the intervention, their behavioural and cognitive processes, and motivation. For example, the teamwork supports, the facilitator's support and the artefacts were central issues around employee creativity. They enabled communication, ideas exchange and explorations of the problems from multiple perspectives (through imagination, ideational behaviour and risk-taking). That being said, the findings indicate the benefit of CPS which emerged when the participants explored the organisational problems as members of a team, worked with the artefacts (a pair of die, flip charts) and gave rise to new ideas.

However, the creative outcomes (as discussed across this chapter) were challenging to the participants who were less engaged across the stages of the intervention. Among the key barriers, there have appeared to be their inconsistent participation in the intervention, low interest in creativity, and communication problems with their teams and with the facilitator. Whilst creative outcomes of those less engaged participants were not apparent, insights into the problematic nature of communication and idea exchange provide further evidence on the challenge of creative development within the workplace.

These findings will be considered in relation to prior research and discussed in Chapter Seven which follows. A revised conceptual framework will also be presented in Chapter Seven.

# **CHAPTER SEVEN**

## **Discussion**

## **7.0 Introduction**

In this chapter, the findings generated are discussed in relation to prior work in the field of creativity, personality and HRD. The chapter begins by presenting and discussing a revised conceptual framework that is underpinned by the findings generated. The chapter discusses the potential of the HRD intervention in terms of fostering creative development across the four case organisations. The chapter also analyses the conceptions of meso-level groupwork supports in enhancing creative development. The discussion explores the barriers to creativity at the individual and organisational levels, and their impact on creative behaviours during the HRD intervention. Throughout the chapter, the discussion illustrates how this study contributes to the research gaps outlined in Chapter One.

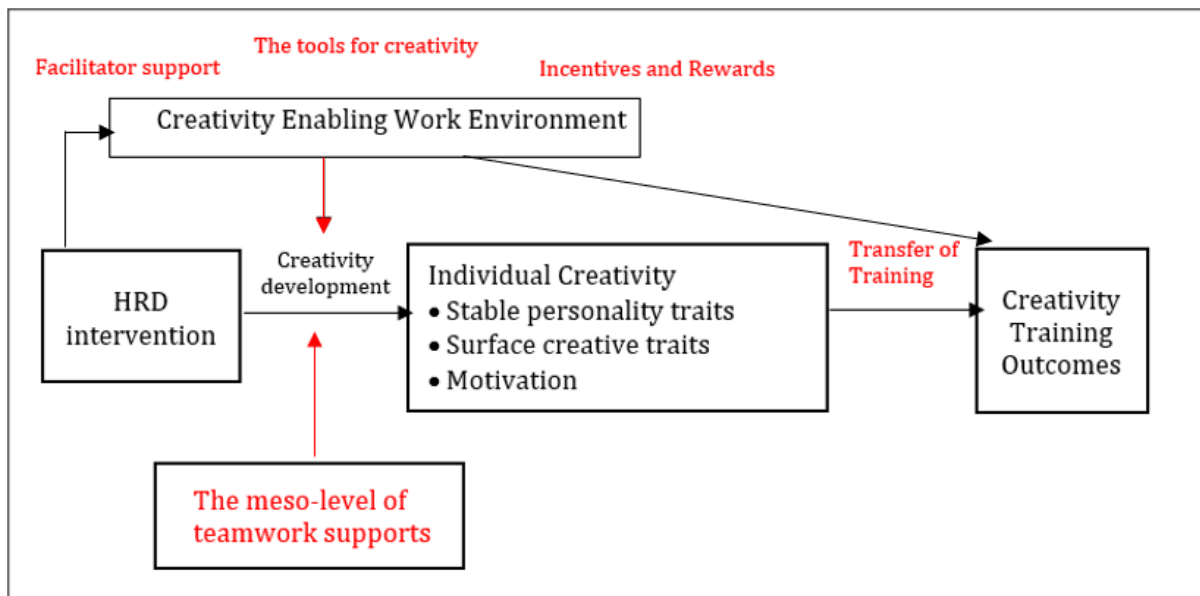
### **7.1 Revised Conceptual Model of Creativity**

There are two main gaps in the existing research relating to the issue of creative development at work. Firstly, the majority of previous research has typically explored the process of creative development with few considering the influence of HRD on the components of creativity such as personal and environmental factors (Gibb and Waight, 2005; Joo et al, 2013, 2014; Latukha, 2018). This research addressed such shortcomings and highlighted that the key advantage of the HRD intervention is its potential to encourage ‘action’ which in turn may lead to higher levels of creativity. Secondly, explorations of creative development have been incomplete in previous research. The existing studies, both qualitative and quantitative, incorporated a sum of HRM practices to explore their effect on creativity (Ismail et al., 2017; Macky and Boxall, 2007; Rojas and Tyler, 2018; Veenendaal and Bondarouk, 2015). This provided an incomplete picture of the process of creative development and how it occurred within the workplace. The study’s focus on a single HRD intervention and an application of a mixed-methods research design responded to this shortcoming and generated more nuanced findings linked to employee creative development.

Drawing on the results of the study, the initial conceptual framework (see Figure 4.2) is revised and illustrated in Figure 7.1. The findings posit that HRD is directly linked to creativity, and this occurs by influencing components of creativity at the individual level. Namely, the HRD intervention employed within this research helps enhance individual awareness of creativity as well as provides the organisation with a means to deliver a creativity enabling work environment. The findings in Chapter Six highlight that creativity development is supported by the meso-level of groupwork; and that groups trigger creative performance during the HRD intervention and in the post-intervention period. The forces in the work environment such as the facilitator support, the tools for creativity, and rewards trigger engagement and individual commitment towards



being creative at work. In red, key differences of the revised framework from the initial conceptual framework in Chapter Four are highlighted and include the meso-level of groupwork supports, the forces in the work environment such as facilitator support, the tools for creativity, incentives and rewards, and the transfer of training.



**Figure 7.1 The Revised Framework of This Study**

## 7.2 RO: Insights into the Developmental Nature of Creativity

Analysis of the findings indicated that the seven study participants responded to the HRD interventions in the form of engagement and creative behaviours. However, behaviours of the rest of the study population were less consistent and involved types of less engaged participation. Implications of both types of engagement on creative development are discussed in the following sections. These findings are discussed in relation to the revised conceptual framework above.

### 7.2.1 Creativity Traits: Stable Personality Traits and Surface Traits

The key finding of the study is **the potential for the HRD intervention to develop employee creativity**. For instance, for the seven study participants, such development occurred due to (a) the influence of the HRD intervention on their creativity traits, (b) attitudes to own creativity and (c) actual experiences during the training. In respect to creativity traits, the findings suggest that the HRD intervention influenced certain stable traits such as imagination (Fantasy), enthusiasm for being creative (Assertiveness), and proactivity and flexibility in problem-solving (Achievement Striving). Due to such influences, all seven study participants thought that the HRD intervention was a useful experience and allowed them to learn about creativity. However, the evidence from the rest of the study population, particularly Cases Three and Four illustrates that

developing creativity through the influence on creativity traits is challenging. This concerns some study participants, particularly those less engaged participants (as discussed in Chapter Six) who thought the intervention was of limited value, as PT7 in Case Three said, *'I am sorry, but I took nothing away from this.'* This finding supports the literature on creative development (Karwowski, 2014; Karwowski, et al., 2019; Royston and Reiter-Palmon, 2017) which highlights that developing creativity through influencing creativity traits may be difficult, particularly for less engaged participants.

In relation to attitudes to own creativity, the results of the analysis suggest that the HRD intervention influenced views on personal creativity and thinking styles. Such influences occurred due to practices of teamwork during the training session, for example when the study participants Jack or Kerry completed the stages of CPS and together with their team members explored creative ideas. Through work with others, such study participants learnt about themselves and explore their creative abilities, as Jack said: *'I was coupled with people who struggled to complete some exercises, therefore, I found myself being creative to help and complete the task.'* As a result of this, Jack thought that his attitudes to his creativity have increased, as he said: *'Due to the workshop I found myself being more creative than I have given myself credit for.'* This finding extends the literature on creative development in teams (Collin et al., 2020) and advises that practices of teamwork create learning experiences during the training session which, in turn, can influence attitudes to individual creativity. Findings on the role of teamwork in the process of creative development are discussed in further detail in Section 7.4.1.

In respect to actual experiences, the findings advise that the HRD intervention gave rise to new ideas and ideational behaviours. In the case of the seven study participants, this ideational behaviour occurred when they were completing the stages of CPS and practising their creative thinking through the reflection of divergent thinking (stages of idea generation) and convergent thinking (i.e., stages of idea evaluation of choice, idea consolidation). However, ideational behaviour may be challenging to initiate, for example, Jack and Sara required the facilitator's support in the early stages of CPS in order to proceed further. The results of data analysis (see discussion in Section 6.3) advise that for these participants it was not easy to understand the workshop instructions and come up with numerous and varied ideas, and, therefore, they required help. A practical implication of this finding is that HRD practitioners should work closely with study participants, particularly in the early stages of CPS and ensure that the task is understood (Abraham et al., 2019; Ritter et al., 2020).

Another important finding from the analysis is that influencing creativity through actual experiences is not straightforward and requires incubation and time for gestation. A good example of this finding is Kerry, who was observed less engaged during the intervention however she thought that she benefitted from the training. In the post-intervention period, she scored

higher across creativity traits (Openness to Experience and Extraversion) and even started to spread the knowledge about creativity in her workplace. This finding supports the results of previous studies, for example, Runco (2015) or Lau (2016) who advise that having time away from the creative training (also known as incubation time) results in more and better training outputs. This finding offers important implications for HRD professionals, such as they have to ensure that all study participants are provided with time and opportunities to reflect on their creative training in the post-intervention period. Even if some participants are clearly less engaged than others during the training, HRD professionals should suspend their judgements and remember that creative development requires subconscious development (or time for gestation).

#### *The Rest of the Study Population*

In addition to these seven study participants, the findings from the rest of the study population suggest that ideational behaviour, in relation to both divergent and convergent thinking styles, may not be simple and feasible for some study participants. Examples of such study participants are managers from Cases Three and Four who were observed with less consistent behaviour across the various stages of the HRD intervention. The results of data analysis (detailed discussion in Section 6.3) highlight that for such participants it was not easy to come up with numerous and varied ideas, and, therefore, they avoided the tasks requiring the development of multiple ideas. They also tended to agree with the ideas of the other team members rather than develop their ideas. These implications may be addressed by HRD professionals with careful planning and assessment of employee creative abilities prior to the intervention and designing activities for creative development in consideration of their abilities and skills. In particular, there may be different preparations for different types of participants, in order to provoke and encourage their more proactive participation in the intervention. These findings are discussed in further detail in Section 7.3.

#### **7.2.2 Influence on Creativity: Motivation**

The key finding in the case of the seven study participants is that the HRD intervention develops creativity through intrinsic motivation, and teamwork is central in this process. Namely, teams create perceptions of the workshop challenge as a commonly shared task and develop positive cognitive states in the process of CPS, such as joy and educational fun. However, using teamwork in developing employee creativity may be less effective for those less engaged participants, for example, those participants from Cases Three and Four. During the HRD intervention, some less engaged participants did not communicate with each other and were doing other things instead such as chatting with other teams. Such negative impact of teamwork on those less engaged participants can be associated with low interpersonal compatibility of teams (defined as a low fit

between team members) resulting in low communication and idea exchange (Bam et al., 2019; Jaremczuk and Kaliszczak, 2015; Zhou and Hoever, 2014). These assumptions were supported by the HR Manager from Case Four who agreed that teamwork problems, such as low trust, low understanding and lack of common language existed within their organisations. This finding contributes to the emerging research on group formation and creativity, for example, Zheng et al. (2020) suggest that interpersonal challenges, defined as a partner effect, can occur in creativity and undermine collective work. Therefore, there is a task for HRD professionals to ensure team fit prior to training, for example by assessing team characteristics of managers and developing teams for CPS based on their key characteristics.

Another important implication of the findings is that through the development of intrinsic motivation the HRD intervention facilitated the transfer of training in own work among the seven study participants. For instance, Emma and Kerry liked to work in teams during the HRD intervention and felt motivated to spread the knowledge about how to be creative in the post-intervention period. Emma indicated that she enjoyed being creative during the HRD intervention, and she brought the knowledge about creativity back to her workplace. For example, she started to teach her teams in creativity. With her teams, she also started to practice creative techniques such as the 'Circle of Opportunity' to departmental problems and apply creative problem-solving at work. These findings extend the revised Componential Model of Creativity and Innovation in organisations (Amabile and Pratt, 2016), particularly the motivation element (Figure 4.2 in Chapter Four). The findings advise, when the HRD intervention brings about an individual benefit of being creative at work, it translates to a willingness of managers to communicate the knowledge about creativity to others and across organisational levels.

#### *The Rest of the Study Population*

The findings from the rest of the study population advise that developing creativity through motivation may not suit some study participants. Examples of such study participants are PT4 from Case Three or PT7 from Case Four who were less engaged in the creative training. They clearly stated that their creative development was hampered by some barriers, such as low relevance of creativity to own job for PT4 and limited timeline to embrace creativity for PT7 (see Section 6.2.2 for full discussion). These findings add to the work of Sung et al. (2018) that suggests that intrinsic motivation of study participants working as a team is facilitated by creativity enabling work environment during the training session and result in more creativity outputs. The findings of this research however advise that the link between motivation to learn about creativity and creativity outputs is more complex and can be influenced by a professional interest in creativity (such as priority of creativity in one's job) and the overall work environment (timeline to learn and practice creativity). These findings offer important practical implications

for HRD professionals, namely, they need to carefully select and appoint study participants in creative training in advance of the actual training day. For example, they could screen study participants by their motivation and interest to learn about creativity. They also should inform study participants that developing their creativity takes time, and those participants who have time for training and development should be targeted.

**In summary**, the findings suggest that there are complex implications of the HRD intervention on creativity. The HRD intervention used in this research could increase individual attitudes to creativity, support imagination and provide managers with new practices of problem-solving. However, the impact of the intervention on creativity among the less engaged population is less straightforward. The results (full detail in Sections 6.3) indicate that such participants may engage inconsistently during the HRD intervention, therefore, benefit to a limited degree. Creative development via the HRD intervention was in teams (see Chapter Five for more discussion); the following sections will discuss the implications of meso-level of groupwork supports for the emergence of creativity.

## **7.3 RO: The Process of Creative Development and its Impact on Cognitive and Behavioural Characteristics of Creativity**

### **7.3.1 The Process of Creative Development: Cognitive Processes**

The findings from the seven study participants revealed that completion of the stages of CPS initiated cognitive and behaviours processes that were associated with creativity. In respect of cognitive processes, the seven study participants demonstrated stronger fluency in their thinking, abilities to consider novelty and originality. Reflection of such cognitive processes was not straightforward and was supported by the warm-up exercises in the early stages of the training session and the creative technique ‘Circle of Opportunity’ (for more discussion see Section 6.3). For example, the early stages of CPS required types of divergent thinking and brainstorming of twelve problem attributes and connections between a pair of two attributes. In the opposite vein, the later stages of CPS required types of convergent thinking, selection of best ideas and development of final solutions. The findings advise that the seven study participants could follow the instruction of the ‘Circle of Opportunity’ technique and generate ideas, Jack even took initiative and developed more ideas as required. This finding supports the studies of Scott et al. (2004) and Lubart (2016) who argued that completion of CPS can give rise to cognitive processes that are associated with creativity.

Opposed to the evidence from the seven study participants, findings from the rest of the study population advise that the ‘Circle of Opportunity’ technique may be less effective for some

study participants and even inhibit their cognitive processes. For instance, some study participants from Cases Three and Four articulated a low value of the 'Circle of Opportunity' technique. During the training session, such study participants were less engaged in the development of ideas, namely, they contributed with no or few ideas and were likely to do their things (e.g., chatting with other participants). Later in the interviews, they referred to the 'Circle of Opportunity' technique as complex and impractical, PT7 from Case Three said: *'The creativity technique was hard to grasp.'* These examples demonstrate that the creative technique itself was provoking challenges with idea generation. Hence, it can be argued that the complexity of the 'Circle of Opportunity' technique was one of the reasons for inconsistent involvement in the HRD intervention.

Another interesting insight generated by this study was the difficulty of less engaged participants to incorporate both divergent and convergent thinking styles during the training. Instead, they were more likely to apply their convergent thinking rather than divergent thinking in CPS. In particular, the less engaged participants across the cases were more involved in the evaluation, selection and development of ideas than the generation of novel ideas for problem-solving (Rennick and McKay, 2018). This finding contradicts the existing literature (Kim et al., 2019; Lubart and Zenasni, 2013; Sternberg, 2017) which highlights that a combination of divergent and convergent thinking leads to higher creativity. In contrast, this current research highlights that the application of both divergent and convergent thinking can be difficult for managers and may reduce their ideational behaviour. A simpler structure of the intervention may be better suited to resolve this problem by HRD professionals. An example of the simple HRD intervention may be the application of creative techniques which focus on one kind of thinking (divergent or convergent thinking) and require only a few stages of CPS.

The findings of this study in terms of the limitations to the 'Circle of Opportunity' technique add weight to the scant literature on tools/techniques for creative development at work (Michalko, 2006; Seifert et al., 2015). The existing research argues that the creative techniques should be underpinned by the tool selection strategy (Seifert et al., 2015) and provoke a combination of thinking styles (Lubart, 2016). In contrast, the findings of this research suggest that the selection of techniques for CPS requires consideration of the degree of complexity. Complex techniques may limit the desired effect of the HRD intervention on individual creativity, and, hence, further research is required to examine the relationship between creative techniques and outputs. For instance, it may be possible that simple techniques (provoking either divergent or convergent thinking styles) are better suited to developing creativity. This may be due to the opportunities of simple techniques to learn creativity step by step, rather than ask the participants to employ complex cognitive processes (as was the case with the 'Circle of Opportunity' technique). Furthermore, the simple techniques may lead to more consistent

behaviours of the participants along the process of CPS. This happens as such tools tend to promote only certain types of cognition and behaviours (ideational or risk-taking) rather than a combination of several types. Hence, simple creative techniques may be a powerful tool to result in a stronger impact on creativity and individual/organisational performance.

### **7.3.2 The Process of Creative Development: Behavioural Processes**

The findings from the study population suggest that completion of the stages of CPS gave rise to behaviours that were associated with creativity. Examples of such behaviours included active participation in discussion, the emergence of playful attitudes and positive cognitive states (see Section 6.3). The results of the analysis indicate that such behaviours were facilitated by the artefacts for creativity, as they helped study participants to become more involved in the initial stages of the HRD intervention and enhanced their imagination. They also helped to generate new ideas and/or develop the ideas of others. These findings are consistent with the conceptual study of] Glăveanu (2013), which highlights the potential of the artefacts for creativity to act as resources and support the cognitive process of CPS.

In addition to the above, the findings of this research advise that emergence of playful attitudes to creativity due to the artefacts provoked the ‘action’ side of the intervention and resulted in greater participation. Study participants from the four cases thought that the artefacts were energising and created a feeling of a game – a game that all study participants wanted to play. With their teams, they were rolling a pair of dice, laughing along the process (positive cognitive states) and exchanging ideas. The finding, that artefacts also created playful attitudes and increase engagement in CPS extends the study of Glăveanu (2013) and Hammershøj (2021). Connections between play and creativity have been recognised in the literature (Hammershøj, 2021); the novelty in this research is that playful attitudes can be facilitated by artefacts and lead to higher participation in CPS. These findings can be of practical benefit to HRD professionals, in that they indicate the utility of using artefacts to support the process of creative development. Incorporating and using such artefacts can develop playful experiences for the participants and encourage their involvement in the intervention in question and imagination.

## **7.4 RO: Creativity Enabling Forces in the HRD Intervention**

### **7.4.1 The Meso-Level of Teamwork Supports**

The findings generated from the overall research population suggest that **teamwork is essential for creative development** (the meso-level in Conceptual Model in Figure 7.1). In particular, the results from the four cases showcase that working in groups helps study participants to learn from each other and raise confidence in creativity. This finding supports existing studies

(Bandura, 1971; Isaksen, 2020; Teece, 2007, 2018) which explore the benefits of teamwork for creativity.

#### *During the HRD Intervention*

The results of the analysis advise that teamwork creates perceptions of creativity as a shared task and provides study participants with extra cognitive resources. During the HRD intervention, this happens when study participants who come from different departments and job roles develop creative solutions as members of one team and learn from each other in CPS. A good example of this finding is Jack who was actively involved in CPS across the stages of HRD intervention and thought, that '*Working with others was the biggest that I took out of the workshop*'. He thought that interaction with members of his team, exchange of ideas and challenging ideas of the others was among the key attributes of teamwork that facilitated his creative development. However, the results of the analysis in Section 6.4.1 illustrate that ensuring good practices of teamwork may be challenging for some participants. Examples of such participants are some less engaged people in Case Three who experienced problems with teamwork in CPS. In particular, those study participants as members of one team were not well involved in teamwork, contributed with little or no ideas and were likely to do personal things rather than interact with each other. As discussed in Section 7.2.2, such issues could be linked to the issue of fit and interpersonal compatibility of the participants as members of a team. The above assumptions are well evidenced in previous research (Hu et al., 2018; Jeong et al., 2017), which asserts that low fit can undermine task engagement and creativity. However, this assumption requires further investigation, for example, whether and how issues of fit and interpersonal compatibility between study participants can be resolved and addressed in the HRD intervention.

#### *In the Post-Intervention Period*

A key finding from Cases One and Two is that teamwork promoted meaningfulness and interest in creativity in the post-intervention period. In particular, working in teams helped managers to become more effective at work, explore untraditional ways of problem-solving or result in new practices of work. The findings of this research, that HRD intervention promotes feelings of work meaningfulness and intrinsic motivation (for discussion, see Section 2.6 in Chapter Two), adds to a wealth of previous research (Dabrowski et al., 2019; Jeong et al., 2017; Min et al., 2016), which holds that work meaningfulness increases individual motivation for being creative. The findings of current research assert that teamwork is central in this process. In practice, this occurs when managers are provided with opportunities to communicate, share ideas, and explore solutions from multiple perspectives.



#### 7.4.2 The Facilitator's Support

The results of the analysis advise that the facilitator is central to supporting creative development via teamwork during the HRD intervention. For instance, the seven study participants contacted the facilitator in the initial stages of the HRD intervention (Idea Collection, Idea Generation and Idea Consolidation). The purpose of such contact was to clarify the task and the strategies of problem-solving. In the stages of Idea Evaluation and Choice and Idea Elaboration, interaction with the facilitator centred around sharing ideas and getting feedback. These findings are consistent with the literature on creative training in organisations (Curado, 2018; Klijn and Tomic, 2010; Veenendaal and Bondarouk, 2015) which highlights that the purpose of help-seeking is to gain clarity about the problem (Isaksen, 2020) whilst idea-sharing helps incubate ideas and develop final solutions (Wang and Nickerson, 2017). The findings of this research assert that both help-seeking and idea-sharing emerge in the process of the HRD intervention. Hence, these findings can be of practical benefit to HRD professionals, in that they indicate how to organise and provide support for the participants. In particular, at the beginning of the intervention the HRD professionals should be able to provide a sufficient level of detail about the creative exercise. They also need to ensure that there is a shared understanding of the creative techniques (such as the 'Circle of Opportunity' technique) and how they are operationalised as part of the CPS process. In the subsequent stages of the intervention, the HRD professionals should be attentive to participants, hear their ideas/solutions and be ready to provide constructive feedback where necessary.

In addition to the provision of support when necessary, the results of the analysis highlight the importance of the creativity enabling style of teaching. The seven study participants appreciated the expertise of the facilitator (i.e., knowledge about creativity), the untraditional approach for training (i.e., the technique 'Circle of Opportunity', provision of freedom, use of analogies), and the facilitator's charisma (i.e., enthusiasm for creativity). For example, Jack said,

*'You were brilliant because you were very knowledgeable about the subject. And you could see how much you knew about this [the subject], how enthusiastic you were about it. You didn't try and guide us down anyone's path, you didn't try to lead us in a certain direction, you allowed us to stay and try more creative ideas by ourselves. You have been there and your way of leading us was beneficial to our learning.'*

These findings are consistent with the literature (Do et al., 2018; Jeong et al., 2017; Li et al., 2018) which highlights that styles of non-controlling leadership (the style which enables freedom and safety of managers to pursue new ideas) increases intrinsic motivation and creative behaviours of others. However, the findings from Cases Two and Three also indicated that the non-controlling

leadership style of the facilitator may be less effective for those less engaged teams. The evidence illustrates that such teams can avoid interaction with the facilitator and chat about other things instead of concentrating on the task at hand. These findings add to the previous research (Herrmann and Felfe, 2013; Jaiswal and Dhar, 2015; Kong et al., 2019) which examines the impact of leadership styles on creative behaviours. Namely, the styles of non-controlling leadership may not be universal to initiate creative behaviours. Instead, the structure of the HRD intervention involving a series of creative interventions (rather than a one-off event) may be a more effective approach in overcoming the challenges in the relationship between leaders and study participants. This finding, however, requires exploration in future research.

### 7.4.3 The Tools for Creativity

The results of the analysis advise that **the tools for creativity emerged as the most supportive forces in the participative work environment**. For example, Emma and Jack favoured such tools as they helped their teams to energise and explore a variety of ideas and perspectives. These study participants were actively engaged across the stages of CPS and thought that the tools were useful for their divergent and convergent thinking styles and transfer of training. Issues of transfer of training are discussed in detail in Section 7.5. This finding contributes to the literature (Hu et al., 2018; Li and Hsu, 2016; Seeck and Diehl, 2017; Yang et al., 2017) which states that the key characteristics of the creativity enabling work environment normally refer to the supportive leadership styles (Newman et al, 2018), fit with the team members and the leader (Zhou and Hoever, 2014; Bam, De Stobbeleir and Vlok, 2019). What is new in this research is that the tools for creativity also enable positive perceptions of the participative work environment. This occurs when the participants work with the tools during the intervention (the part of die, flip charts) and use them in order to explore a variety of perspectives for problem-solving.

**In summary**, the results of the analysis highlight several key findings. The findings highlight that communication and dialogue are essential to creative development and facilitated through teamwork. The facilitator's support is also important and fosters a non-controlling environment that is supportive of training in creativity. However, the evidence from Cases Two and Three asserts that the positive effect of these forces can be limited for those less engaged employees. The reasons for the limited effect may be issues of fit and interpersonal compatibility between the participants as members of a team. The findings of this section highlight several considerations in the structure of the HRD intervention and the facilitator support. First, the HRD professionals should incorporate group activities and practices of inter-group collaboration to support communication in those teams who may not wish to interact with the facilitator. Examples of such practices can include team rotations or role-playing in the process of CPS. Second, HRD professionals need to develop their professional and transferrable skills in order to

make the interventions better. Such skills involve expertise in non-controlling leadership and teaching styles that provide degrees of freedom. Specific arrangements should be considered for less engaged participants as well, for example development of social capital with such participants prior to the intervention may be practical in order to ease their involvement and interaction with the facilitator. The following section will examine the impact of the HRD intervention on individual and organisational performance.

## **7.5 Impact of the HRD Intervention on Individual and Organisational Performance**

The results of the analysis highlight that developing employee creativity via the HRD intervention impacted individual levels of performance, such as the acquisition of new knowledge and skills, changing attitudes to creativity and performance outputs as discussed in previous sections. In addition, it also influenced organisational performance through the transfer of learning and result in business efficiency (see Section 6.5.2). The findings advise that developing creativity is facilitated by incentives and rewards. However, the process of creative development is complex, and it can be challenged by different barriers to creativity in the work environment. These findings are discussed in the sections below.

### **7.5.1 Incentives and Rewards**

The findings indicate that study participants are empowered by incentives; for example, the feelings that there are opportunities to apply their creativity and be creative. Furthermore, employee perceptions of rewards for creativity are essential for their creative development in the post-intervention period. The evidence from the seven study participants asserts that their organisations launched reward schemes, both monetary and non-monetary, to support long-term creativity. For example, the HR Manager from Case One mentioned that the organisation implemented some of the ideas developed by study participants during the HRD intervention (the ideas of deal-type websites and new menus), and in return rewards were issued to such managers to appraise their creative effort, such as *'service charges on guest bills ... so obviously the busier the restaurant is the more a service charge that our associates get. And it was something that we already haven't had in place. So obviously with the restaurant becoming busier that would increase which was great for them.'* This finding supports previous research (Doran and Ryan, 2017; Heffernan et al., 2016; Somsing and Belbaly, 2017) in which it is suggested that incentives for creativity such as monetary rewards have the potential to increase extrinsic motivation and support creative outcomes. However, Cases Three and Four did not provide any support for creativity in the post-

intervention period. Issues of limited organisational support for creativity in the post-intervention period are discussed in Section 7.5.3.

What is interesting in this research is that the seven study participants appeared to value non-monetary incentives, as opposed to monetary incentives. Examples of such rewards were incentives that acknowledged employee creativity and facilitated its development. For instance, when asked about useful incentives that would help facilitate and encourage creativity, Emma said, *'there should be more opportunities about how to work as a team, how to solve problems as a team, as staff members, this would help – anything that would help my career, develop myself.'* This finding is consistent with another stream of literature, for example, Reiter-Palmon et al. (2009), Horng et al. (2016) and Sanders et al. (2018), who highlight that non-monetary rewards lead to higher levels of intrinsic motivation whilst monetary rewards risk undermining individual creativity. Hence, through offering monetary rewards to employees, the organisations may develop feelings of pressure and excessive control for creativity. For example, if managers feel that creativity is forced rather than encouraged by the organisation, they may wish to decrease their creative involvement.

The above discussion provides evidence of a potential conflict of needs between the managerial and participant levels. Such conflict, in turn, can be detrimental to employee empowerment to engage and practice creativity at work. Namely, this conflict may occur when the participants require developmental activities (practices of teamwork, opportunities for raising their voices), and, in turn, the organisations provide monetary incentives which may be of a lower value to their creativity. In this case, the participants may feel that they are not being truly listened to by the organisations and, therefore, become less empowered in creative activities. A practical suggestion here is highlighting the role of HRD professionals who are key to hearing the needs of employees. Their role may be to examine and understand employee needs and the opportunities they require for their creative development. Additionally, HRD professionals may be intermediaries in the relationship between managerial and participant levels, such as they should communicate managers needs linked to creative development to the top management and ensure that there is an understanding between the parties. However, such HRD professionals should be influential and powerful in their roles and be able to engage in dialogue with senior leaders in an organisation.

## **7.5.2 Transfer of Training**

### *The Emergence of Creativity from the Lower Levels of Management*

The findings from the seven study participants advise that completion of the HRD intervention led to the transfer of training in the post-intervention period. One way of transfer occurred when study participants at the lower levels of management tried to resolve organisational problems

(Renkema et al., 2021). The evidence from the seven study participants indicates that managers spread the knowledge about creativity in the post-intervention period, and such application of creativity post-intervention gave rise to creativity. For example, Emma says, *'I challenge people in my department, and we try to make our department and the overall organisation more effective.'* (full detail in Section 6.5.1). In this process, Emma delivered the presentation about creativity (similar to the one used in the HRD intervention) to her team, then together with her team members brainstormed creative ideas to resolve organisational problems. However, Cases Three and Four did not see the need for integrating creativity in individual work practices and giving a rise to creativity from lower levels of management. Among the reasons for this behaviour was a low perceived value of creativity for the participants, as said by PT7 from Case Three, *'I am sorry, but I took nothing away from this.'* Hence, the challenge for HRD practitioners is to communicate the value of creativity to those less engaged managers (for example, through a series of creative interventions) and support their long-term creative development at the level of organisation.

#### *Top-Down Emergence of Creativity*

The findings advise that the other way of transfer of training was through a top-down approach, which occurs when study participants at the upper levels of management tried to resolve problems at lower levels of management. Jack is a good example of this finding, who said that completion of the training session gave rise to top-down creativity in the post-intervention period, and this process was facilitated by his organisation in the form of a participative work environment. In the literature, such type of work environment is defined as a work environment that is based on trust, knowledge sharing and active listening (Maimone and Sinclair, 2014; Messersmith et al., 2011). Jack commented that he and other study participants liked the work environment during the HRD intervention, for example when the participants were able to raise voices, express opinions in the process of problem-solving and be heard by the others. In the post-intervention period, his organisation tried to sustain this type of work environment, and that was in form of organisational encouragements for creative solutions. In particular, the organisation encouraged Jack and other study participants from the same organisation to organise monthly departmental meetings and practice top-down creativity during these meetings. Such teams were tasked to resolve the problem of employee engagement at the lower level of management, using their creative approach, as Jack said,

*'Each month we have a head-of-department meeting and we used that structure to try resolve problems and the most recent one was with employee engagement. I have not had any success in coming up with a creative solution, together as a team we definitely have. We have seen that as our employee engagement scores have risen since we've done the task, so that was really good for us as a hotel.'*

However, the evidence from Cases Two, Three and Four points out that the participative work environment alone may not be sufficient to ensure top-down creativity, and other factors should be taken into consideration. Such factors may include less active involvement of teams in group discussion, tendencies to agree with ideas of the other team members and reflection of negative affective states such as boredom. A more robust discussion of these factors and their impact on creativity is summarised in the following section.

### **7.5.3 Barriers to Creativity: Organisational Commitment to Creativity**

The findings advise that despite the impact of the HRD intervention on creativity, there was an issue with an organisational commitment to creativity. The evidence across the four cases shows that future developmental initiatives such as future HRD interventions were beyond the organisational focus, for example the General Manager from Case Three said that there would be *'other training, like sales, the revenue management training but we don't have any creative training workshops organised.'* This finding emphasises a potential short-term impact of the HRD intervention on creative behaviours amongst employees. It aligns with the previous research (Dhar, 2015; Bamber, Bartram and Stanton, 2017) which posits that low organisational commitment to long-term creative development can be detrimental to creativity at work. In particular, low organisational commitment communicates low support and priority of creativity for the organisation, and this, in turn, decreases the willingness of employees to engage in creative thinking at work. This finding provides scope for HRD professionals to communicate the importance of creativity to senior management staff and facilitate their long-term creative development. For example, they can organise special events in creativity (creative workshops), engage employees in long-term HRD programmes, or facilitate new practices of problem-solving. Here, there is a need for HRD professionals to embed creativity within the organisational strategy, and through this organise opportunities for enhanced individual creative performance (Arora and Suri, 2020; Park et al., 2014).

A low organisational commitment to creativity may also be reinforced by a barrier in the practitioner (i.e., GM)-employee relationship. The General Manager in Case Three mentioned that managers returned to their work and did not demonstrate any further interest in creativity. However, the evidence (see Section 6.4.5 in Chapter Six) shows that the effect of the HRD intervention was complex, and there were participants from Case Three who reported a benefit of the creative exercise in terms of their creativity. For example, they said that they continued to work on the organisational challenge during the post-intervention period and applied practices of creative thinking in their work. This finding, that there may be a barrier in the practitioner-employee relationship, supports a few studies (Lin and Liu, 2012; Sparrow et al., 2016) which assert that senior managers/line supervisors can be detrimental to employee creativity. In

particular, managers can be unaware of the benefits of the HRD intervention to some staff and, therefore, discourage their future creative development. This in turn may result in low employee perceptions of the creativity enabling work environment and decrease their intrinsic creativity. This research argues that there is a potential for HRD practitioners to facilitate the practitioner-employee relationship. Namely, they are key to monitoring employee creative performance and communicating the evidence of their creative success to the top management. They can also organise and deliver initiatives that encourage further development of staff. However, as noted earlier HRD practitioners should be influential and powerful in their roles to be listened to by senior leaders in an organisation.

#### **7.5.4 Barriers to Creativity: Problems in the Internal Work Environment**

In addition to organisational commitment to creativity, the evidence from Case Four indicates that challenges with team communication and trust can further impede creative development in the post-intervention period. An example is the HR Manager's claim that managers did not perceive a benefit of the HRD intervention because they had problems in reaching a shared understanding and trust when they were working as a team. In response to this problem, the organisation decided to run another training initiative that sought to increase their communication skills and build trust. This finding may be useful for HRD professionals, namely highlighting their role in diagnosing the work environment and providing essential training prior to any creativity interventions, such as training in communication and trust.

Shorter HRD interventions (such as a two-hour training session as used in this research) can also inhibit creative development. The evidence from Case Four points out that a one-time initiative was not enough for some participants, because managers liked extended training programmes. They may also require more time for ideas to emerge. For example, Case Four said that they did another training initiative to increase communication and trust in their staff, in the form of an enduring programme with five workshops. This period of five workshops allowed the managers in Case Four to enhance their degrees of performance and, therefore, achieve the training goals. This finding supports the previous research (Vafeas and Hughes, 2016; Woods et al., 2018) that the duration of the training initiative may be an obstacle for development at work. In particular, some managers may value extended (more than one intervention) programmes because they help to incorporate a focused approach to their training and learn more effectively.

### **7.6 Chapter Summary**

This chapter employed insights from the creativity, personality and HRD research to discuss the nature of creative development. It also considered the underlying role of the HRD intervention

and teamwork to support creative development. Following the empirical study, the revised conceptual framework was illustrated and discussed. The revised framework incorporated new elements which emerged as a result of the research and data analysis, such as the meso-level of teamwork supports, transfer of training and forces in the creativity enabling work environment such as the facilitator's support, the tools for creativity and rewards. The findings were discussed in relation to the scant literature on individual creativity and creative development, collective problem-solving, and HR practices such as HRD interventions for creative development. The key findings, in relation to the Conceptual Model in Figure 7.1 are summarised in Table 7.1. The Conclusions chapter will discuss the main themes from this chapter in relation to the theoretical and managerial contributions of this research.



**Table 7.12 Summary of Key Findings**

The Conceptual Model	Key Take-Aways	Meaning for HRD Professionals
Individual levels of creativity	<b>HRD INTERVENTION CAN DEVELOP EMPLOYEE CREATIVITY</b>	
	<ul style="list-style-type: none"> <li>- Increases awareness of creativity</li> <li>- Increases stable (<i>imagination, assertiveness, achievement striving, neuroticism</i>) and surface traits of creativity (<i>ideational behaviour</i>)</li> <li>- Increases intrinsic motivation</li> <li>- Application of both divergent and convergent thinking may be difficult for managers and undermine creative development</li> </ul>	<ul style="list-style-type: none"> <li>- Creative development is facilitated by the tools for creativity</li> <li>- Managers should be assessed for their creative abilities and skills prior to an intervention</li> <li>- Simple structure of HRD intervention should be considered (focusing on either divergent or convergent thinking and/or requiring only a few stages of problem-solving)</li> <li>- There should be considerations in terms of demographic characteristics for creativity.</li> </ul>
Team levels of creativity	<b>TEAMWORK IS ESSENTIAL FOR CREATIVE DEVELOPMENT</b>	
	<ul style="list-style-type: none"> <li>- Communication and dialogue are central to creative development</li> <li>- Teams help managers to learn from each other and develop confidence in creativity</li> <li>- Working as a team supports employee participation in intervention and motivation</li> <li>- Practices of teamwork transfer in individual work in the post-intervention period and support creativity</li> </ul>	<ul style="list-style-type: none"> <li>- HRD practitioners should be able to set goals for creative development</li> <li>- HRD practitioners should be capable to develop social capital with teams to overcome the challenge of low psychological safety and trust</li> <li>- The facilitator support is required throughout the stages of the intervention</li> <li>- The styles of facilitator support should remind those executed by non-controlling leaders (including the provision of freedom, enthusiasm and charisma, and ability to provide support)</li> </ul>
Organisational levels of creativity	<b>CREATIVITY ENABLING FORCES FOSTER THE DEVELOPMENT OF CREATIVITY</b>	
	<ul style="list-style-type: none"> <li>- Non-monetary rewards are particularly valued by employees</li> <li>- Creative development can be challenged by barriers such as organisational commitment, practitioner-employee relationship, low team communication and trust, and duration of the intervention</li> </ul>	<ul style="list-style-type: none"> <li>- A potential conflict of interests if managers feel that they are not heard by organisations nor supported in a desirable way</li> <li>- There is a scope for HRD professionals to encourage employee creativity, i.e., organising special events, long-term HRD programmes</li> <li>- HRD professionals should monitor employee performance and report evidence to top management to support employee creative development</li> <li>- HRD professions should evaluate perceptions of the organisational work environment prior to the intervention</li> </ul>
Work Environment	<b>THE TOOLS FOR CREATIVITY ARE THE MOST SUPPORTIVE OF CREATIVITY</b>	
	<ul style="list-style-type: none"> <li>- Help to explore a variety of ideas</li> <li>- Support action in HRD type interventions</li> <li>- Initiate imagination and act as a mind map for creative problem-solving</li> <li>- Transfer in individual work practices</li> </ul>	<ul style="list-style-type: none"> <li>- Benefit may be undermined with complex structured HRD interventions</li> <li>- Benefit may also be challenged by complex creative thinking techniques</li> </ul>

# **CHAPTER EIGHT**

## **Conclusions**

## **8.0 Introduction**

The thesis focuses on a gap of knowledge in HRD and creativity research by examining the role of HRD as an enabler of employee creativity at work. In responding to this gap, the thesis explored how HRD interventions may facilitate employee creativity within the organisational context. By exploring the issue of creative development, this research is pioneering in the field, providing unique evidence on creative development within a specific industrial setting (hotel), and exploring the link between HRD and creativity. Subsequently, this thesis utilised concepts from creativity and personality research to interpret the process of creative development, as well as HRD research to shed further light on the cognitive, behavioural and contextual factors associated with learning in creativity. A pragmatic research methodology incorporating qualitative (i.e., participant observation, interview research) and quantitative (i.e., survey research) views was adopted to explore the research objectives.

This chapter will discuss the main conclusions of this research. The chapter begins by outlining a summary of the main conclusions and contributions of this research. It will then reflect on how the research objectives formulated in Chapter One have been explored through empirical research and analysis. Limitations and directions for future work will also be considered.

## **8.1 Summary of Conclusions and Contributions**

The major conclusions of this study and the contributions to the literature are discussed against the study objectives and reflected in Table 8.1. They are further discussed throughout the chapter.

**Table 8.1 Main Findings of The Research**

Research Questions/ Research Objectives	Gaps in Knowledge	Contribution to Knowledge	Contribution to Method and Practice
<p>RQ1: To identify how the HRD intervention influences the ability of managers to perform more creatively at work</p> <p>RO1: To explore the developmental nature of creativity via the HRD intervention, within the hotel sector.</p>	<p>Practices within HRM/HRD research that support creative development at work</p> <p>Potential of single HRM practices such as HRD to affect employee creativity</p> <p>Processes within an individual that can support creative development via HRD</p> <p>Development of creativity within the hotel sector</p> <p>Limited methodological considerations of how employee creativity can be initiated and examined</p>	<p>HRD intervention can influence employee creativity, namely:</p> <ul style="list-style-type: none"> <li>• Through higher awareness of creativity.</li> <li>• Through increases across stable (<i>imagination, assertiveness, achievement striving, neuroticism</i>) and surface traits of creativity (<i>ideational behaviour</i>).</li> <li>• Through higher motivation.</li> </ul> <p>Development of creativity via the HRD intervention is a difficult and complex process; in particular application of both divergent and convergent thinking is challenging and may undermine the process of creative development</p>	<p>Investigations into the process of creative development which is examined within the organisational context and from less explored sectors such as the hotel sector (Method)</p> <p>A range of contextual factors in HRD interventions facilitate development and more creative outcomes, namely the facilitator support, teamwork, the tools for creativity, rewards (Practice)</p> <p>Managers should be assessed for their creative abilities and skills prior to intervention (Practice)</p>
<p>RQ2: To identify the factors in the HRD intervention that have the most positive impact on employee creativity</p> <p>RO2: To examine the process of creative development at work and its impact on cognitive and behavioural characteristics of creativity.</p> <p>RO3: To investigate the creativity enabling forces in the HRD intervention which support creative development.</p>	<p>Little is known about what factors in the work environment facilitate creative development via HRD</p> <p>Little is known about whether the impact of training interventions can be sustained and result in creative behaviours</p> <p>There is a gap in our knowledge about how creativity can be measured and investigated within the organisational context and socio-cultural environment</p>	<p>Teamwork is essential for creative development, namely:</p> <ul style="list-style-type: none"> <li>• Communication and dialogue during the intervention.</li> <li>• Learning from each other.</li> <li>• Higher motivation and participation in the task.</li> </ul> <p>The practical part of the HRD intervention (application of CPS for the organisational challenge) facilitates learning and creative development. Low interpersonal compatibilities between managers as members of a team, low psychological safety and trust</p>	<p>The impact of the HRD intervention should be measured over time (as in this research) and involve both quantitative and qualitative methods of analysis to get extra meaning for researchers and HRD practitioners (Method)</p> <p>The tools for creativity create playful experiences during the HRD intervention and become a part of individual work practices in the post-intervention period (Method, Practice).</p> <p>Developing creativity may be hampered by the complexity of the HRD</p>

<p>RO4: To obtain an understanding of the HRD intervention on the ability of managers to engage in creativity in the post-intervention period.</p>		<p>are likely to diminish employee engagement in teamwork.</p> <p>The tools for creativity emerged as the most supportive forces in the participative work environment.</p> <p>Managers are likely to practice creativity over time when they are personally interested in creativity (and such interest is initiated by the HRD intervention), and when they are provided with opportunities to do creative tasks.</p>	<p>intervention and the creative exercises used (Practice).</p> <p>The HRD professionals should incorporate group activities and practices of inter-group collaboration to support communication in teams with low psychological safety and trust prior to commencing interventions (Practice)</p> <p>The HRD professionals need to develop their professional and transferrable skills, such as non-controlling leadership and teaching styles as they make interventions better (Practice)</p>
<p>RQ3: To identify the forces in the work environment which support the process of creative development</p> <p>RO5: To explore the impact of the HRD intervention on individual and organisational performance.</p>	<p>Little is known about meso-level factors which support creative development at work</p> <p>There are gaps in our knowledge about how creativity can be encouraged and sustained over time.</p>	<p>Creativity enabling forces foster the process of creative development, such as non-monetary rewards.</p> <p>Creative development can be challenged by barriers in the work environment such as organisational commitment, practitioner-employee relationship, low team communication and trust, and duration of the intervention</p>	<p>HRD professionals should be powerful and influential in their role and be able to act as intermediaries between managers and senior management (Practice)</p> <p>Teamwork facilitated during the HRD intervention becomes a part of the individual work approach in the post-intervention period and supports the emergence of creativity from both lower and top levels of management (Practice).</p> <p>The impact of the HRD intervention on creativity is not straightforward and requires extra time, effort and commitment (Practice)</p>

## **8.2 Exploring Research Questions and Research Objectives**

### **8.2.1 Influences of the HRD intervention on the Ability of Managers to Perform More Creatively at Work**

The incorporation of the HRD lens in this study facilitated the exploration of the creative development process. It is found that the HRD intervention can influence and develop employee creativity, namely, it initiates the learning process and energises managers by involving them in the stages of CPS. In turn, this can influence the stable (Imagination, Assertiveness, Achievement Striving, Neuroticism) and surface traits of creativity (Ideational Behaviour) and motivation. Such impact of the HRD intervention on creativity can enhance the ability of managers to think outside the box, adopt multiple perspectives for problem-solving and engage in untraditional forms of thinking. Hence, this study adds to previous research that advocated the potential of HRD interventions to support the development and learning (Arora and Suri, 2020; Lau et al., 2017; Loewenberger et al., 2014). It is concluded that the ability of managers to perform more creatively emerges from the HRD intervention, namely – through the element of action and the process of CPS.

The findings illustrate an array of sector-specific factors and mechanisms that accompany the process of creative development via the HRD intervention. Teamwork, facilitator support, the tools designed to enhance creativity and rewards emerged as essential factors in HRD type interventions. However, the process of creative development was not straightforward and involved some problem areas, for example difficulties to reflect both divergent and convergent types of thinking during the intervention, issues of fit between participants as members of their teams and challenges when engaging with the facilitator. Furthermore, such issues were reinforced with an array of sector-specific factors that accompanied the process of creative development during the HRD interventions. For example, issues with work pressure, multitasking and seasonality are of particular relevance to the hotel sector (full detail in Section 1.1.2 in Chapter One and Sections 6.2.2 in Chapter Six) and thus may be a reason why some managers perceived the HRD intervention to be of a limited value for their creativity with a reduced application of creative behaviours in the post-intervention period. Hence, there are practical implications for HRD professionals, such as awarding a greater consideration to the inter-team fit and the HRD programme (i.e., a series of HRD interventions rather than a one-off event) prior to the intervention, providing facilitator support during the intervention and over time, using the artefacts as well as offering incentives and rewards. Furthermore, HRD professionals are advised to assess managers for their creative abilities and skills prior to the intervention to plan and arrange their creative activities.

## **8.2.2 Factors in the HRD Intervention which have the Most Positive Impact on Employee Creativity**

In this study, the HRD intervention can be characterised as a learning and capacity building initiative. Teamwork was identified to be an essential element in the HRD intervention. Namely, teams helped the participants stay involved in the intervention and be flexible in their concepts, i.e., through a variety of thinking styles and ideas that managers as members of their teams could generate. Practices of teamwork also transferred in individual work in the post-intervention period. Examples are Emma and Jack where the participants commented that they started to teach creativity to their teams and to practice CPS with them, such as brainstorming. However, as may be expected for teams that are small in size (between 3-4 participants in this research) and comprise an array of skills and orientations for creativity, development of creativity requires consideration of the team composition and the collective environment for learning (Curado, 2018; Dong et al., 2017; Fay et al., 2015; Rhee and Choi, 2017). It is therefore concluded that prior to HRD interventions HRD professionals should do employee testing on their ability to work together, communicate and exchange ideas and arrange teamwork based on the results of such testing. In terms of the tools that may be utilised for such testing, practitioners may consider adopting Belbin's test on teamwork which has proved to be effective in planning team exercises and resulting in high-performance outcomes (de Waal et al., 2020).

In addition to teamwork, the results of the study inform that there are other factors and processes in the HRD intervention which support creative development. The action element of the HRD intervention has been central to facilitating learning and creative experiences. In particular, the warm-up exercises, the 'Circle of Opportunity' technique, the tools for creativity were energising dimensions that supported the delivery of the HRD intervention. This finding adds weight to earlier work in the creativity literature (Glăveanu et al., 2018; Glăveanu, 2015) that highlights that action-oriented interventions and artefacts can support exploration and exploitation of ideas, facilitating the process of creative development. The results of this research explain how their positive impact on creativity is delivered. In particular, the artefacts enable the action (i.e., when managers work the tools for creativity in the CPS) and deliver playful experiences (when managers roll a pair of die several times). As a consequence of this, they give rise to more creative experiences and therefore are perceived positively by the participants.

However, the outcomes of this research add to the argument that developing creativity is a challenging task to HRD practitioners (Garavan et al., 2019; Gibb and Waight, 2005; Loewenberger et al., 2014; Waight, 2005). For example, the influences of the HRD intervention on creativity may not be straightforward and require time for incubation and gestation. Furthermore, the results indicate that some less engaged participants are typically more involved primarily in the initial stages of the workshop with less engagement in subsequent stages (i.e.,

Idea Generation, Idea Consolidation). The findings suggest that the complexity of the HRD intervention and the creative technique adopted i.e., the 'Circle of Opportunity' technique could be a reason for such inconsistent behaviours as it required participants to apply both divergent and convergent thinking styles. As a result, those less engaged managers thought that there was a low value of the intervention for their creativity; namely, they felt that their attitudes to creativity did not change. It is therefore apparent that the contextual factors in the HRD intervention represent an area of concern, for example around planning, structuring and delivering the intervention. Such challenges should be considered by HRD professionals, as well as examined in future research. In particular, there is a scope for future work to examine arrangements of HRD type interventions, in terms of their structure and complexity and their potential to facilitate creative behaviours of study participants. There is another scope of research to examine experiences and learning needs of less engaged participants after HRD interventions and deliver follow-up HRD practices/exercises designed to facilitate their learning in creativity over time. HRD professionals should ensure that outcomes of such HRD practices/exercises on employee creativity are constantly examined and reflected upon.

Based on the findings, a conceptual framework that illustrates the process of creative development through HRD is illustrated in Chapter Seven (see Figure 7.1.). The framework highlights that HRD connects to individual creativity and leads to creativity training outcomes. It also considers the meso-level of teamwork supports and the forces in the work environment which help creativity to happen, such as the tools for creativity, the facilitator support and incentives and rewards. Some of the creativity components are already recognised in the creativity and personality research, for instance the components of creativity at the individual (i.e., basic materials, creative characteristics, a driver as discussed in Section 2.3 in Chapter Two) and organisational levels, however, the conceptual framework illustrates the factors that are relevant to the process of creative development (i.e., the tools for creativity, the non-controlling facilitator support, rewards, the meso-level of teamwork supports). In addressing calls for research that considers creative development within an organisational setting (Mihret Dessie and Shumetie Ademe, 2017; Min et al., 2016; Sung et al., 2018), it illustrates the linkages of HRD with individual components of creativity through the process of creative development. Specifically, the HRD intervention helps to increase awareness of creativity, and this process is supported by the tools for creativity, non-controlling facilitator support, rewards, and teamwork. Furthermore, the HRD intervention supports the transfer of training in the post-intervention period, in the form of new creative ideas at both lower and top levels of management.



### **8.2.3 Forces in the Work Environment Which Support the Process of Creative Development**

This study has explored characteristics of the work environment which supported the process of creative development after the HRD intervention. Incentives and rewards emerged as essential forces for creativity; namely, they were likely to keep the participants engaged and interested in creativity. Furthermore, the participants appeared to value the rewards that could provide cognitive incentives rather than monetary benefits, for example further training in creativity, training in how to work as a team, training about how to be more productive at work in the post-intervention period. The findings of the current study add to previous research (Doran and Ryan, 2017; Shalley and Gilson, 2004) which holds that rewards/incentives do not affect creativity. In contrast, this research demonstrates that rewards are essential for creative development and motivation. However, the results of the analysis indicate that rewards are not universal for creativity. For example, monetary rewards offered by HR/General Managers appeared to be of lower value to managers than non-monetary rewards. Such discrepancy between the needs of the participant and the actions of the organisation may cause managers to feel that they are not listened to by senior management. In this case, the role of HRD professionals is paramount, as it serves as a facilitator in allowing participants to be heard and also ensure that appropriate rewards are allocated.

In addition to rewards, the results of the analysis highlight that teamwork appeared to be an essential force of creativity and supported the transfer of training. In the post-intervention period, practices of teamwork were embedded within the work environment and facilitated creativity from both lower and top levels of management. An example of creativity from lower levels of management was an attempt of participants from Cases One and Two to resolve a higher-level organisational problem. In this process, they worked together with their teams, applied the 'Circle of Opportunity' creative technique and brainstorming, and explored such a problem from multiple perspectives. In addition to the above, cases of top-down creativity occurred when managers from Case One took part in the head of departmental meetings and attempted to resolve problems with lower levels of management. In this case, the process of top-down creativity was supported by organisational encouragements and the participative work environment. However, evidence from Cases Three and Four highlights that creating a participative work environment may be problematic, and there are issues linked to communication, trust, and interpersonal compatibility of teams (Puente-Díaz and Cavazos-Arroyo, 2017). Problems in the participative work environment can undermine the cohesion and synergy of a team (Chang et al., 2014; Gupta and Banerjee, 2016) resulting in negative affective states and low motivation in creativity. They can also undermine perceptions of the work environment for creativity (Kaplan et al., 2009; Kim and Zhong, 2017). Hence, there are recommendations for HRD professionals to monitor the

organisational work environment prior to the HRD intervention and ensure a good fit of the participants as members of a team.

Finally, the findings highlight that creative development is challenged by a range of forces in the work environment. For example, the participants from Cases One, Two and Four mentioned limited organisational commitment to creativity and problems in internal work environments. This indicates a substantial gap in the process of creative development; namely, orientations for creativity should be embedded within the HRD department and explored at the organisational strategy level (Glăveanu, 2015; Meinel et al., 2018) as well as being extensively communicated to employees. There is potential for HRD professionals to deliver such a strong strategic orientation for creativity and provide continual training opportunities for employees, for example around issues of internal communication and trust (as in Case Four), monitor and evaluate employee creative performance (as in Case Three).

The main conclusions relating to the developmental aspects of employee creativity have been discussed thus far. The contributions of this research to the literature will be discussed in the subsequent section.

### **8.3 Contribution to Knowledge**

This research has made a range of key contributions to the knowledge, method and practice and has addressed many of the gaps discussed in Chapters One, Two and Three. The contributions of this study will be discussed in relation to the three key streams of literature that are connected to the study's aims and objectives, particularly the creativity literature, personality research and the HRD literature. Furthermore, consideration will be given to supplementary streams of literature that have been incorporated to capture the research agenda from a range of perspectives, such as the development and learning literature.

#### **8.3.1 Contribution to Creativity Literature**

This research highlighted that the application of the HRD intervention in creativity research leads to a change in creativity. These findings extend the results of previous studies indicating that training initiatives affect the surface traits of creativity, such as CSE (Meinel et al., 2018; Tang and Werner, 2017), self-rated creativity (Haase et al., 2018; Joo et al., 2014; Pretz and McCollum, 2014), as well as several stable traits of creativity, such as Extraversion (Kienitz et al., 2014), Openness to Experience (Patterson and Zibarras, 2017). The results highlight that HRD interventions can also influence certain creativity traits (Fantasy, Assertiveness, Achievement Striving) and surface traits (Ideational Behaviours and Risk-Taking) and that such influence is facilitated by the tools for creativity. The key value of such tools for creativity is to facilitate the learning process in creativity and initiate cognitive and behavioural processes associated with

creativity through playful experiences during the HRD intervention. As a result of this, the participants have a stronger awareness of their creativity and start to behave more creatively in the post-intervention period.

The results of this study advise that the effect of the HRD intervention on individual creativity is supported through the meso-level of teamwork. In previous research, a relationship between teamwork and creativity has been identified (i.e., Binyamin and Carmeli, 2017; Hu et al., 2018; Mcfadzean, 2000; Sung et al., 2018), however, there is still a paucity of research on the role of teamwork in the HRD-creativity nexus (Darling-Hammond et al., 2020; Isaksen, 2020). The research population in question confirmed that teamwork has been most effective in the process of creative development. Furthermore, practices of teamwork translated into individual and organisational work practices and supported creativity from both lower and top levels of management. This finding is important and sheds further light on the role of teamwork as an important force in the process of creative development.

The findings also raise concerns about the nature of creative development over time and outline the barriers to creativity in an organisational context. Several authors have already outlined that HRD interventions need to be embedded within organisational and managerial practices for long-term support for creativity (Jiang et al., 2012; Meinel et al., 2019). This research supports this view by highlighting the need for organisational commitment to creativity and training initiatives at work. This argument is supported by the research participants who called for future developmental initiatives; however, this remains a low priority for HR/General Managers from case organisations. Hence, this finding warns of a limited effect of the training intervention for employee creativity. This study reinforces the role of HRD practitioners in resolving this problem for organisations; in particular, these practitioners are key to promoting a unified and collective effort in terms of fostering a conducive work environment and supporting the emergence of creative initiatives over the longer term. In this case, they are likely to act as key intermediaries in the relationship between managers and senior management and ensure that opportunities for creativity exist within organisations and managers are aware of them.

### **8.3.2 Contribution to HRD Literature**

The findings on the impact of HRD on the process of creative development are unique in the HRD literature (Brown and Latham, 2018; Garavan et al., 2019; Latukha, 2018; Park et al., 2014). The role and position of HRD in enabling creative development at work was not clear in prior research, and there is a significant gap in current knowledge of how HRD can be conceptually linked to creativity and what methodologies exist to examine such a relationship within a single study (Amabile and Pratt, 2016; Glăveanu and Kaufman, 2019; Sparrow et al., 2016). Several contributions have been made that contribute to this gap in research.

The findings of this research highlight that there may be creativity-enabling and creativity-inhibiting factors in the HRD intervention. Particularly, the HRD intervention which seeks to initiate cognitive and behavioural processes requires creative techniques and the tools for creativity. They, in turn, support the engagement of managers in the intervention and provide them with greater awareness of their creative potential. However, issues with inter-team fit, low engagement with the facilitator and low motivation can limit the benefits generated by the HRD intervention. Hence, the findings help to lead the below discussion on the factors which lead to creative development.

The findings highlight that the creativity enabling factors in the work environment include practices of teamwork such as the interaction and dialogue between the participants (Curado, 2018; Dong et al., 2017; Massaro et al., 2011; Massaro et al., 2012), the facilitator support (Gevers and Demerouti, 2013a; Jeong et al., 2017; Dirani et al., 2020; Garavan et al., 2021), the artefacts (Glăveanu, 2015) and rewards (Doran and Ryan 2017). The findings provide a more holistic understanding of these factors in the process of creative development. In particular, the results of participant observations point out that employee involvement in the HRD intervention is supported by the artefacts; namely, they increase task engagement and interaction. In addition to the artefacts, teamwork delivers perceptions of creativity as a commonly shared task and results in stronger motivation amongst employees. The non-controlling facilitator style is also identified as essential, for instance it helps to provide clarity about the task in the initial stages of the intervention and incubate ideas through feedback at the later stages (Jeong et al., 2017; Mahmood et al., 2019). However, these forces may be less effective among those less engaged managers who experience problems with the HRD intervention.

The findings highlight areas of concern for HRD and challenge assumptions of creative development amongst those less actively engaged participants (Karwowski, et al., 2019; Ritter et al., 2020; Scott et al., 2004; Sica et al., 2019). The evidence displayed in this research illustrates that some less engaged participants did not find the HRD intervention beneficial to creativity nor did it influence their attitudes to creativity. This may be attributed to their low motivation, the complexity of the HRD intervention, as well as issues of low interpersonal compatibility of the participants as members of a team. Another area of concern was a low willingness of the participants to communicate with the facilitator as showed in Cases Two and Three (see Chapter Six). HRD professionals should be powerful and influential in their role and be able to act as intermediaries between managers and senior management. In support of Loewenberger (2016), this finding confirms that developing creativity through HRD is challenging, and there is a need for considerations of characteristics of the research population and the structure of the HRD intervention prior to the training taking place.

A further contribution relates to the issue of creative development at work in the post-intervention period. The findings evidence that the research population who was actively engaged in the HRD intervention were able to apply creative approaches to their work. Particularly, they started to use the artefacts, practices of teamwork and collaboration. In relation to the direct contribution of HRD, the findings evidence the effectiveness of the intervention for individual and organisational performance as suggested in the literature (Joo et al., 2014; Loewenberger, 2016; So and Joo, 2017; Waight, 2005; Williams and Foti, 2011). However, while only a potential connection between HRD and creativity is considered in the literature, the findings of this study confirm this link through empirical research.

Finally, the findings provide insights into the problematic nature of creative development via the HRD intervention. Somewhat intuitively, issues of communication and trust within the research population deserve particular attention, for example they play a central role in determining whether and how participants interact during the training intervention, exchange ideas and engage in creativity in the post-intervention period. Furthermore, as evidenced earlier (Abraham et al., 2019; Kienitz et al., 2014; Tang and Werner, 2017; Woods et al., 2018), the duration of the training intervention can present an issue for a positive effect of the HRD intervention on creativity, therefore, more extended HRD initiatives (rather than a one-off intervention as in this research) may be better suited for the process of creative development. Hence, this study highlights the importance of communication and duration of the HRD intervention for increasing creative outputs and development in the post-intervention period.

### **8.3.3 Contribution to Personality Research and Development Literature**

This is the first study that provides insights into the role of HRD in developing creativity, due to the influence of the intervention on the components of creativity. In this study, the components of creativity were explored by the levels of plasticity/flexibility (as discussed in Section 2.3 in Chapter Two) in order to explain how creative development can occur. With the conceptual framework shown in Chapter Seven (see Figure 7.1), this research responds to the call in the personality research to examine how creativity is developed via the HRD intervention within the organisational context (Arora and Suri, 2020; Brown and Latham, 2018; Gibb and Waight, 2005). The framework accommodates the process of creative development. Namely, the link between HRD and creativity is established through the process of development and learning and its influence on the components of creativity at the individual (stable and surface traits, motivation) and organisational level (i.e., through creativity enabling work environment). Action is a central element in the HRD intervention; it triggers thinking styles and ideational behaviour. Teamwork also contributes to this process, for instance it allows the participants to explore untraditional thinking (i.e., thinking outside the box), exchange ideas and reflect new cognitive behaviours.

The findings illustrate the interplay of learning and engaging processes resulting from CPS and indicate how they all contribute to creative development. The key contribution here is the importance of artefacts (Glăveanu, 2018; Glăveanu and Kaufman, 2019); namely, they encourage a combination of divergent and convergent thinking. They also facilitate engagement of study participants in the initial stages of the HRD intervention, interest and motivation for creativity. Hence, the outcomes of this study point out that the artefacts are likely to act as key resources for creativity and facilitate the process of creative development.

Finally, a key contribution of this research is linked to the finding on how teamwork for creativity can be used by HRD practitioners to support development and learning. The case of both actively engaged and less engaged participants/teams showed that there were challenges with the teamwork and the facilitator supports; however, these problems were likely to be overcome with peer support and engagement with other teams. This study highlights that such challenges require further research, for example examination of different leadership styles such as transactional or transformational styles (Herrmann and Felfe, 2014; Li et al., 2018) and placing a stronger emphasis on the fit in the teamwork.

## **8.4 Contribution to Method and Practice**

### **8.4.1 Method**

This study has contributed to the existing creativity and HRD literature with evidence-based research. More specifically it has identified how managers engage in creative development, what behaviours they reflect in this process, and how they apply creativity at work. There has been a lack of such studies in prior research; and there have been calls for empirical research on creative development within an industrial/organisational context and research methodology which could underpin such investigations (Garavan et al., 2019; Isaksen, 2020; Loewenberger, 2016; Stojcic et al., 2018). Most previous empirical studies investigated the process of creative development within lab settings such as educational settings and among student populations (Morin et al., 2018; Ohly et al., 2017; Wechsler et al., 2018). There had also been a narrow focus on the outputs of creativity, for example perceptions that are associated with creativity rather than the process of creativity and creative development (Aleksić et al., 2016; Brem, 2019; De Clercq and Belausteguigoitia, 2019; Pretz and McCollum, 2014; Rice, 2006; Rubenstein et al., 2018). In contrast to prior research, this study has delivered a holistic view of the process of creative development within the hotel sector and the interplay of research instruments/tools: the action element in the HRD intervention, methods of qualitative and quantitative research to initiate creativity amongst employees. This research demonstrates that an interplay of such research methodologies is essential to robustly explore the process of creative development at work.

### **8.4.2 Practice**

The findings and conclusions of this research highlight the potential for HRD interventions to influence employee creativity. Hence, the findings outline several implications for HRD practitioners and businesses, and they are subsequently discussed in turn.

The findings of this study highlight that HRD practitioners must commit to creativity and carefully plan and consider how to foster creative development within the workplace. HRD practitioners could seek to exploit internal organisational resources such as the staff that if appointed for the intervention and guided throughout the CPS could lead to creative outcomes. HRD practitioners play a key role in educating managers in creativity, and they should utilise an array of available resources in the work environment to support their learning. Namely, they should access a range of artefacts for creativity, use teamwork more proactively, and try different leadership styles (such as non-controlling styles) to encourage cognitive and behavioural processes related to creativity.

There is a need for careful planning and implementation of the HRD intervention to facilitate participant engagement and learning. Action-enabling exercises, as well as communication and dialogue between research participants as members of a team, are particularly important during the intervention. Managers appear to appreciate non-teachers, and HRD professionals need to undertake essential training to acquire creativity enabling skills and characteristics. They should be flexible and proactive in their approach, employ untraditional techniques in the intervention as well as be enthusiastic about creativity.

To address challenges in the process of development i.e., less engaged involvement in teamwork, limited interaction with the facilitator, inclinations for idea elaboration rather than idea development, HRD practitioners should have a proactive plan for engagement. For instance, HRD practitioners should be able to recognise characteristics of the participants for learning and participation, such as if they are interested in creativity and would require creativity in daily work. Second, it is recommended to test managers on their styles of team engagement prior to the intervention. This would provide HRD practitioners with a clear understanding of employee creative behaviours and characteristics, for example arranging teamwork based on individual team qualities and attitudes. Furthermore, it is suggested to develop heterogeneous work teams for more active participation in the intervention. Such practices may be able to enhance team dynamics, communication and idea exchange. Finally, it is suggested that HRD professionals develop social capital and trust with managers before and during the HRD intervention. This is key to overcoming the challenges of limited interaction with the facilitator. In this case, a series of HRD interventions may be useful in developing the relationship between the facilitator and employees.

The findings also indicate that practitioners must consider a range of creative techniques and exercises to trigger creative responses. Here, consideration should be given to the structure and complexity of the techniques employed. The participants involved in this study indicated that a simple technique i.e., one that would require implementation of one thinking style (divergent or convergent thinking) rather than a combination of thinking styles may be better suited to their creative development. HRD practitioners may therefore consider designing a series of training interventions, with each aiming to train a specific style of thinking or a personality trait (i.e., risk-taking, fantasy, ideational behaviour). Hence, the process of planning and designing HRD interventions should be adaptable and flexible to satisfy individual learning styles and needs.

In terms of the barriers to long-term creativity, the findings suggest the need for HRD practitioners to highlight the requirement for creativity at the level of organisational strategy. They are essential to contribute to this goal by embedding creativity enabling forces (i.e., teamwork, creative techniques, the tools for creativity) and practices within the organisation. HRD professionals are also essential in monitoring perceptions of the creativity enabling work environment, as well as recognising individual creative effort and delivering this information to senior management. This would help narrow down the communication gap between the organisations and individuals (as discussed in Section 7.6 in Chapter Seven). This could also bring about more interaction and collaboration between managers i.e., in the form of knowledge exchange, ideation, satisfaction and motivation for being creative at work. However, HRD professionals should be powerful and influential in their role and be able to act as intermediaries between managers and senior management.

## **8.5 Limitations of This Research**

The thesis examined the challenge of creative development at work in the hotel sector across Northern Ireland. Thus, the findings are bound to the location and local hospitality culture. However, this research has recognised the key themes and factors in the process of creative development via the HRD intervention; hence, the findings may encourage future research into the process of creative development via HRD within different locations and sectors.

Considering the scarcity of prior knowledge into the relationship of HRD and creativity, the research objectives were broad and considered HRD broadly rather than an in-depth focus on particular practices and creative techniques (for example the 'Circle of Opportunity' technique, brainstorming, role-playing). Fundamentally, this research sought to examine the HRD-creativity nexus within the organisational context and how HRD can (or cannot) lead to creative development. However, the approach helped identify the themes and factors associated with creativity and identified topics for future research.



In relation to methodology, a criticism of pragmatic research of this kind is its limited generalisability, difficulty to ensure richness of the findings and value aware stance of the researcher which may provoke bias. This study did not aim to generalise the results; several steps were incorporated to ensure a variety of research perspectives and understanding of the socially constructed reality, as explained in Chapter Five. However, the data of this research were collected at several time points, and the number of respondents who participated in each time point was inconsistent (see Sections 5.4.3, 5.4.4 and 5.4.5 in Chapter Five). Because of this reason, complex quantitative examinations of creativity were not performed, for example a change in attitudes to creativity in the pre-and post-intervention periods and a magnitude of a change. There is a potential for future research to address this issue and perform robust quantitative examinations of creativity via a longitudinal study design, for example a degree to which the HRD interventions influence individual creative attitudes and behaviours.

Several challenges emerged in organising and delivering the creativity workshop. Although the essential steps were taken to maintain the structure and consistency of the intervention in the four case organisations, a range of issues emerged that were beyond the initial attention and control of the researcher. For example, it was challenging to engage with some participants (i.e., those less engaged) or keep them engaged in the creative exercise. Such issues could have affected the process of creative development of the less actively engaged research population. Future research could address this issue by involving at least two researchers in the data collection process, in particular two researchers would mean an increased capacity for a research study and allow for more nuanced attention to the research population. For example, they could more proactively assist those less engaged participants to complete the stages of CPS as well as provide help to other participants involved in the research process.

Finally, the core concepts examined in this study such as creativity and creative development, are complex and difficult to investigate conceptually and methodologically. In relation to creativity, the issue of self-reporting bias may affect how managers score on perceived traits and characteristics related to creativity (i.e., stable and surface traits) and how they score in the post-intervention period and estimate creative development. Furthermore, reflections of practitioners over employee creative behaviours in the post-intervention period may be likewise incomplete and perceptually biased. Such limitations are common to similar studies (Montag-Smit and Maertz 2017), furthermore, methodological steps such as interviewing research participants (who completed the HRD intervention) and senior management (HR and General Managers) were taken to address the bias.

## **8.6 Personal Reflections**

Completing the fieldwork was challenging for the researcher. On many occasions, the organisations refused to commit to the full research process because of the high seasonality in the hotel sector and the limited availability of staff to participate in the creative workshop. However, those difficulties allowed the researcher to build her resilience and diligence despite constraints: several times she changed her strategy in terms of accessing potential organisations and securing the research population for her work (see Section 5.2.2 in Chapter Five). In addition to the issues of access, the researcher faced severe difficulties in collecting and recording as complete data as possible. Leading creativity workshops by one person is difficult, and the burden is worsening with the task to lead the workshop whilst doing observations at individual and team levels. She was worried that some key data may be lost because of her limited capacity to collect and record the data. In future work, the researcher will reconsider the whole design and delivery of HRD interventions; at least two researchers will act together throughout the process.

Finally, the design and delivery of the creativity workshop required additional preparations. Because the researcher was foreign to the business culture in Northern Ireland, she had to ensure that interventions would be understood by research participants and encourage engagement. Those preparatory experiences were useful to develop her as a researcher, in particular they allowed her to become more aware of cultural differences and be more flexible in her approach.

## **8.7 Directions for Future Research**

In general terms, the findings of this research offer scope for similar research in other industries and other regions. Particularly, issues pertaining to creative development in terms of the flexibility of personality traits, teamwork supports, the tools for creativity, facilitator support, rewards and the HRD intervention can be explored in other settings and regions. Within the European geographical region, previous studies including this current research considered the issue of creative development in developed countries (Barabasch et al., 2020; Collin et al., 2020; Nolan et al., 2020). Our knowledge is still limited, in terms of whether and how creative development could be operationalised in developing countries (including countries in Central and Eastern Europe such as Ukraine, Belarus, the Baltic States) and an influence of regional socio-cultural forces in the organisational environment to influence the process of creative development. Considerations of a variety of regional characteristics and their impact on the work environment are important for the generation of a more complete picture of opportunities and barriers of HRD to facilitate more creative behaviours at work.

Additionally, further attention should be awarded to the content and structure of the HRD intervention including the techniques and exercises adopted for creativity development. More research is needed to explore the techniques that are the most consistently related to creative development and how they initiate cognitive and behavioural processes. In this research, the 'Circle of Opportunity' technique was employed however it was perceived to be complex and difficult to follow by those less engaged participants. Hence, future research should examine the creativity enabling techniques and consider their impact on creativity of actively engaged and less engaged research populations.

The tools for creativity and their impact on long-term creative development are worthy of future research. In this research, the artefacts were explored in terms of material resources (i.e., pair of die, flip charts and markers). They provided some important insights into participant engagement in the initial stages of the intervention as well as the development that takes place following completion of the creativity workshop, such as engagement of managers in creative problem-solving in the post-intervention period. It would be interesting to systematically explore this theme involving a broader appreciation and application of the artefacts and the manner how they encourage creative behaviour. For HRD practitioners, it is important to be aware of different resources and mechanisms for creativity and be able to apply them at right time. Such knowledge of various resources and mechanisms for creativity will also allow them to be flexible in their work approach and design more effective HRD interventions.

Future research should also explore styles of the HRD facilitator, in the relationship with employee engagement across the stages of the HRD intervention and creative outcomes. Examples of such styles can involve transactional or transformational leadership. It would be interesting to undertake a comparative study examining different styles of leadership and their impact on engagement. In this research, the key concerns in the relationship of the facilitator and the participants were low trust and low confidence. Future research should examine these issues, for example the styles of leadership that leads to higher levels of trust in the process of creative development and ultimately results in higher creativity.

This study identified the potential of the HRD intervention to influence the traits of creativity. This was recorded in the form of creative self-assessment in the post-intervention period and through interviews with participants and practitioners. Further research on the nature of creative development is essential, for example examinations of the effect size and the magnitude of change. Furthermore, the results in this research showed that the HRD intervention enables several stable (Openness to Experience, Extraversion, Conscientiousness) and surface traits and allows managers to incorporate more creative perspectives on work-related problems. There was also an impact of demographic characteristics (such as age and tenure) on the process of creative development. Considering the small sample size employed in the quantitative analysis,

future research should explore these insights within a larger population as well as test the impact of the HRD intervention across a broader range of traits.

There is also scope for further research to examine the issue of long-term creative development. Particularly, longitudinal research study design could be incorporated, involving a series of workshops for creativity as well as assessing creative self-perceptions over time. There is also a need to reflect on how HRD can be conceptualised and embedded in a culture of creativity across organisations.

Finally, the challenging process of creative development should be addressed in future research. Future research should investigate a variety of processes and barriers at the levels of individual, team and organisational and explore their impact on the process of creative development. The ultimate goal of future research should be to construct and promote a more creativity favourable work culture that would be capable to encourage individual creative input over time.

## **8.8 Concluding Remarks**

This chapter highlighted the main conclusions of this research and discussed those in relation to the research questions. Furthermore, it emphasised the contribution of this study to the literature gaps regarding how creativity emerges amongst managers and how HRD is positioned to enable creative development within the organisational setting. The thesis employed the concepts from the creativity and personality research to discuss the challenge of creative development, as well as the HRD literature to interpret the impact of HRD on creativity through learning and developmental interventions. The context of this research was the hotel sector organisations located across Northern Ireland. A mixed-method methodology incorporating the idea of action in the HRD intervention and a range of research methods were employed to investigate the research questions posed.

The findings of this research highlighted that HRD has the potential to influence creativity, particularly through awareness of the individual creative potential and the action element in the HRD intervention. Creative development occurs through teamwork, it increases motivation, communication and idea exchange when creativity is perceived as a shared task. Furthermore, the artefacts are important as they initiate cognitive and behavioural processes. They also translate into individual work practices and support long-term creative development. The facilitator support for creativity is also vital, for example when it takes the non-controlling leadership style. Finally, rewards help to keep managers engaged and encouraged to participate in the process of creative development. The barriers to creativity are complex and largely relate to the issue of low organisational commitment to creativity, such as low support and prioritisation of creativity at the level of strategy. Barriers to creative development during the

HRD intervention have been discussed and include issues of low trust, low confidence, and low interpersonal compatibility. They also relate to the complexity of the HRD intervention itself and the creative techniques.

This research is limited to the context of the hotel sector in Northern Ireland. However, the study has produced a conceptual framework that can be tested in future studies and provide a strong insight into creative development across different sectors and locations and with large population sizes. Several further suggestions for future research have been outlined. There is also a range of practical recommendations for practitioners and organisations that strive for creative outputs.

In summary, this research has demonstrated that the HRD intervention along with creativity enabling factors such as the groupwork supports, the tools for creativity, and the facilitator support, are important for the development of creativity and forming a creativity enabling work environment. Whilst the HRD-creativity nexus has rarely been explored in previous research, this study has demonstrated that HRD can also have a potential for a long-term effect on creativity through organisational support and commitment.

# APPENDICES

## APPENDIX ONE: An Overview of Approaches to Creativity

**Table 1 A review of Theoretical Approaches to the Challenge of Creativity**

Approach	Key Ideas	Critics	Authors
Creativity as a production	<ul style="list-style-type: none"> <li>• Creativity is the production of new and useful ideas by single individuals or a group of individuals.</li> <li>• Creativity is a seed for organisational innovation.</li> <li>• Originality and usefulness of ideas are emphasised.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited reference to a range of stakeholders and relationships included in creativity.</li> <li>• Unclear parameters to define the nature of creativity.</li> <li>• Novelty of creativity cannot be judged subjectively (issues of limited reference to time and culture).</li> </ul>	Amabile, 1988; Puccio et al., 2010; Mumford et al., 2012; Gupta, 2014; Weisberg, 2015; Corazza, 2016.
Creativity as a process	<ul style="list-style-type: none"> <li>• Creativity is “the process and the quality that allows the human being and organisations to transform reality, and also to transform themselves through the introduction of novelty”.</li> <li>• Creativity is facilitated when people have an intrinsic interest in the subject and are cognitively stimulated to be creative.</li> <li>• Creative thinking requires action.</li> </ul>	<ul style="list-style-type: none"> <li>• The structuring view on creativity: creative thinking is enabled when individuals make efforts to break out routines, exchange ideas, and think outside the box.</li> </ul>	Runco, 2004; Neyer et al., 2009; Mumford et al., 2012.
Creativity as a decision	<ul style="list-style-type: none"> <li>• Creativity as an individual decision to be creative in everyday life.</li> <li>• Such a decision is underpinned by the belief that creativity will be recognised and rewarded.</li> <li>• Creativity requires knowledge, cognitive skills, problem-solving, context-specific variables.</li> </ul>	-	Sternberg, 2006; Aleksić et al., 2016.
Creativity as a discovery	<ul style="list-style-type: none"> <li>• Creativity requires a cognitive journey.</li> <li>• Double discovery is highlighted: discovery of new ideas and bringing them into action, as well as recognition of the value of these ideas by others.</li> </ul>	-	Boodin, 1921; Martin and Wilson, 2017.

## APPENDIX TWO: Invitation Email to HR/General Managers in Cases



Anastasia Kulichyova  
PhD Researcher  
Ulster University  
MS125  
Northland Road  
Londonderry, BT48 7JL  
Tel: 074 5528 3899  
E-mail: [kulichyova-a@ulster.ac.uk](mailto:kulichyova-a@ulster.ac.uk)

Dear HR Manager

My name is Anastasia Kulichyova. I am a PhD researcher in the Ulster University Business School. I am currently undertaking a piece of research for academic qualification and working on the project entitled "The role of Human Resource Development as an enabler of creativity". My work is focused on exploring the role of creativity in individuals and the contribution of each employee to organisational creative impact. I am driven by understanding that creativity can be trained and enhanced by awareness and intervention, to help employees overcome barriers and become more creative at work. The purpose of my research project is to investigate the role of creativity from strategic HRM perspective and training interventions as mechanisms of influence that can initiate, promote and sustain creative thinking over time.

To verify my research approach, I need support from organisations in Northern Ireland. I am specifically focusing on companies from the Tourism Sector, which I find more strategic in unleashing and developing the individual creative potential to help them stay more competitive in the marketplace. The research team at Ulster University has selected your hotel as an ideal organisation to explore this topic because you are a member of this sector and so are a key source of information facilitating this investigation. Would you be willing to take part in this research study?

The research will ask employees from the relevant department to complete an online self-assessment tool. The questions included within the survey are designed to collect information on personality traits, self-concept creative characteristics, and perceptions of the work environment. Those who return the form will be invited to participate in a half-day creativity workshop. Any information collected as a result of this research will be treated in the strictest confidence and used only for the purpose of academic research.

Your participation in this research will help to generate a better understanding of the role of creativity in individuals and provide a fresh and unique insight into the potential of training interventions on individual creative behaviour. If you have any queries or concerns regarding this research, please do not hesitate to contact myself or my academic supervisors Dr. Sandra Moffett and Dr. Judith McKnight. Please, find their contact details below.

Dr. Sandra Moffett

Dr. Judith McKnight

Ulster University  
Business and Management Research Institute  
Tel: 028 7167 5381  
Email: [sm.moffett@ulster.ac.uk](mailto:sm.moffett@ulster.ac.uk)

Ulster University  
Business and Management Research Institute  
Tel: 028 9036 8497  
Email: [j.mcknight1@ulster.ac.uk](mailto:j.mcknight1@ulster.ac.uk)

I appreciate your cooperation and look forward to receiving your response.

Regards,  
Anastasia Kulichyova



## APPENDIX THREE: The Procedural Structure of the HRD Intervention

### 1. Introduction (10 minutes)

Good afternoon everyone. My name is Anastasia Kulichyova, I am a second-year PhD researcher at Ulster University. Today we will be practising your creative skills and exploring the organisational problem using your creative potential. The approximate duration of this intervention is two hours, and it will involve the conceptual and practical elements. In the practical part, you will have an opportunity to apply your creative skills, right here and right today.

#### *Warm-Up Exercise 1*

Before we begin, I would like to do a short exercise with you. Please keep your eyes closed for the duration of the task.

Hands up if you think you are naturally creative?

Keep your hand up or raise your hand if you feel your work environment encourages you to be creative?

Keep your hand up or raise your hand if you are creative in your current role.

OK, all hands down and open your eyes. Reflect on your choices as we progress through the workshop. For you personally what helps or hinders your creativity?

#### *Warm-Up Exercise 2: 'A Penny for Your Thoughts'*

Just to support your creativity prior to the main part of the intervention, let's do another exercise which is called 'A Penny for Your Thoughts'. You will be working in pairs for this exercise. You all have a coin that is no more than 15 years old. Please, try to think back to the date on your coin and discuss your memories with your partner. It can be something significant/ important/ interesting that happened to you that particular year. When you discuss memories, in each situation try to think of the elements of creativity. For example, new house – the task of decorating, new job – creative time management, new approaches to working, new baby – new parental skills. Also, try to recall the 'fun' factor and how you overcame challenges by being creative. You will have 5 minutes to work on this task.

Now I would ask some teams to share the memories with the rest of the groups. Please try to consider the element of creativity in your presentations.

### 2. Conceptual Element of the Intervention (35-40 minutes)

So... Why creativity? Why should any adult person want to be creative?

#### **Slide One<sup>3</sup>**

"First, creativity is a natural part of who we are. It means that's creativity is a fundamental human skill, it is something that we are born with, that we all need to succeed in every domain, any way of life. Human history also demonstrates that we all were born to be creative. Do you doubt this? Well, I give you an example from human history... Imagine a tiger. It has colourful stripes for camouflage. It can grow to about 11 feet wearing more than 600 pounds. Tigers have the longest canine teeth, about 2.5 inches long. Now I would like you to imagine that you have just come face to face with a very unhappy tiger. What would you do? Are you fast enough to run away from it? Are you strong enough to wrestle with it? I don't think so.

Why did I ask you to think about a tiger? Tigers first appeared 2 million years ago. The homo genus, humans, appeared 2.5 million years ago. Think about it. Look at yourself. How on Earth did

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<sup>3</sup> Slides 1-14 are adopted from the lecture by Corazza, G. (2014) *Creative Thinking: How to get out of the box and generate ideas*. TEDxRoma. Available at: <https://www.youtube.com/watch?v=bEusrD8g-dM>

we ever survive given threads like that in our environment? How was that possible? Well, conformity. It allowed for collaboration and the development of a shared culture, community. But if all we ever did was to conform, then we wouldn't have growth. We would never try anything new. And because conditions changed, we had to try new things. So, what I am trying to say is that conformity was necessary for evolution but not enough. That also required creativity. At least, to solve problems in the changing environment. We started to create tools and invent solutions helping us to co-exist with threads and survive."



## Slide Two

Why is it important to be creative in the modern world?

COMPILED BY  
WORLD ECONOMIC FORUM

### Top 10 skills

in 2020	in 2015
1. Complex Problem Solving	1. Complex Problem Solving
2. Critical Thinking	2. Coordinating with Others
3. Creativity	3. People Management
4. People Management	4. Critical Thinking
5. Coordinating with Others	5. Negotiation
6. Emotional Intelligence	6. Quality Control
7. Judgment and Decision Making	7. Service Orientation
8. Service Orientation	8. Judgment and Decision Making
9. Negotiation	9. Active Listening
10. Cognitive Flexibility	10. Creativity

"Let's go back to the modern world. We all now know that creativity is an inborn human skill. Why do we need it, why do we need to practice it? I can tell you that creative thinking and imagination are among skills that are unlikely to be automated but future proof, highly demanded, desirable by many organisations. Why is that?"

We have entered a creative economy, we live in an innovation world, we are becoming much more concerned about how innovation drives our lives and prosperity. As a result, the skills to be successful in the work world in the 21<sup>st</sup> century are very different from those in the 20<sup>th</sup> century. The World Economic Forum 2015 produced a list that talks about skills that people need to have to be successful in the workplace. This is a list from 2015. The list from 2020 is somewhat different. In 2015, creativity was number 10. It jumps to number 3 by the year 2020. And I would argue that the number 1 skill "complex problem solving" is directly connected to your ability to think in creative ways because complex solving doesn't have easy answers. Complex problems don't have single right answers, they require discovery, imagination. If we look at the list more closely, we see several skills that relate to creative thinking. So, complex problem solving, creativity, judgement and decision making, cognitive flexibility – creative thinking is a red thread that is woven throughout these skills.

So, the role of creativity is increasing in everyday life, and we must acknowledge it. What is interesting about this is although the role of creativity is high, HR managers tend to report when they hire an employee, they know who that skill doesn't have but don't know how to develop it. This is the gap: high need – unable to fulfil the need."

## Slide Three

"There are many ways to understand creativity, normally you talk about a creative person, creative process, or creative product. So, creativity could be understood as "a function of the

employee's personal characteristics, the characteristics of the context in which he or she works, and also the interaction among these characteristics".

What do personal characteristics mean? It is your creative abilities, your creative skills. They imply three things. First, as I said earlier, we all have it. You have been born with it. We all have the capacity to envision, to picture in our minds a different reality. Again, it is a competitive advantage of our species. Second, when you measure it, it is normally distributed. Like all other abilities. It falls along a normal curve. The third point is like all other abilities whatever your level is, we know through research, it can be enhanced. You don't have to be born like Mozart, although Mozart went through some fundamental developmental experiences that helped to promote his creativity. The creative ability, creative thinking is a trainable skill."

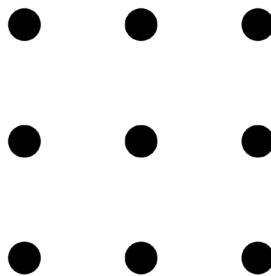
### Slides Four-Nine

Why is creativity something that we need to learn?

I can give you one example. Some of you have probably seen this before. It is called a nine-dot puzzle. I give you 1 minute, normally it is 10 minutes.

#### ***Warm-Up Exercise 2: 'A Nine Dot Challenge'***

The challenge here is to link all 9 dots using four straight lines or fewer, without lifting the pen and without tracing the same line more than once.



"The embracing thing is that kids have no problem with this. They do it right away. I start by showing you why it is so hard for adults to solve this. If you look at a person trying to solve it on paper, this will be the solving strategy. You start in one corner, you go to another corner and you continue doing it until you realise "I am almost out of lines", and then you cross 45 degrees. Then you realise you are out but still haven't gone through all the 9 dots. And the creative solution to this, the adult solution, is that you have to realise that you don't have to stop in a dot. And by realising this, you can actually solve it. So, we put rules into it that are not there.

*[showing the solving strategy]*

The kids solve this task differently. That was a beautiful study. One kid, about 6 years old, when seeing this said "well, I can solve it with three straight lines". Imagine the adult arrogant by this would be like "you're so cute, ha-ha". Yeah, come on and show me. And he did this. And it is completely a fine solution. Some kids were folding the paper round, so they could do sort of one straight line going around the paper in circles, which is also fine. In the same class, one pupil said, "I can actually solve it with one line". Okay, maybe you can. And he did that. And it is still a completely fine solution. It is just embracing that we didn't think about it, because we have this kind of idea of keeping the relationship between the thickness of a line with a size of a point. Making this really challenging task for adults and easy task for kids."

*[showing the solving strategies developed by kids]*

## Slide Ten

Why is it like this? It is well evidenced that traditional education hinders our potential for creative thinking, for example when teachers ask for one right answer to complex problems.

“Why is this important? The secret lies in the two fundamental forms of thinking that we can engage in, divergent and convergent thinking. Divergent thinking, which is the top of the diamond, is the ability to generate many, vary and original options. It starts at a central point and goes larger. Many of us are mentally lazy and we only stay in the thought zone that is familiar to us. And we don’t challenge ourselves to engage in a prolonged form of divergent thinking to get to the new areas of discovery.

The other form of thinking is convergent thinking, represented by the bottom portion of the diamond. Convergent thinking is finding the best option. It is screening, it is evaluating, it is selecting, it is making critical choices. How is this related to your creativity? Previous research shows that adult achievement is better predicted by divergent thinking than convergent thinking. It is not just slightly better. It is a 300% stronger predictor of adult achievement than convergent thinking. Why? When you can generate multiple responses to a problem, you make yourself more powerful. You create more options for yourself. If you are facing a problem and have one option, it succeeds or fails. If you look at this in your organisational world, one study done some years ago, to get to one successful innovation, if you trace that back, it takes 300 concepts to get to one innovation. Divergent thinking. Quantity yields quality.”

## Slide Eleven

“So, how to be more creative? Let me do a quick poll. How many of you have ever played or playing now the musical instrument? Ever or now? How about an athletic endeavour? The sport that you pursue. How about a hobby, art, craft? How did you develop mastery in all those areas? Practice, practice, practice. How else do you develop mastery? Besides practice? Study. Learn some strategies. Get coaching. Get some feedback. The exact same thing is true about creativity. What we know is if you learn cognitive strategies, if you practice those strategies, if you get coaching and feedback, like any other ability, creative thinking can be trained. It can be developed, just like any other area of human endeavour. How do we do that?

Creativity training often means improving the brain’s ability to find different pieces of information that seem to be irrelevant at the time. Is that simple? Sometimes easy means difficult. Have you ever been assigned an easy task which for you is very difficult to perform, and maybe for anybody else? And this is when you are experiencing frustration. It is similar to what happens when a boss comes to a meeting and tells you to think out of the box. “Give me your creative ideas, think out of the box, I want to hear that, I need innovation”. Easy, simple, but very hard to do. You need to practice, you need to know how to get out of the box, where to go and how to come back inside the box because that’s where we live. We live inside our boxes.”

## Slide Twelve

“So which box are we talking about? It is not our mind; we cannot think out of our minds. It is a boundary within our minds, a boundary between what we know and what we still/yet have not thought of. What is our mind? What is our knowledge structure? It is an emergent phenomenon out of the complex mechanism which is the brain. We start with our initial conditions, our genetic heritage. We have boundary conditions which are our environment. We have indirect experience – years and years spent in schools and universities to learn what other people have thought, what other people have discovered, what other people have created. And then we have our own, direct experience – our successes and our failures, that really makes what we are. All of these builds the

end hill in which we live, and we live very well in that. And whatever we think inside that, until that box, we feel safe. Whatever is outside, is invisible to us, we don't know what is outside. That is why it is so risky because nobody else knows. And so, we are faced with something necessary to our dignity, but is very difficult to do."

### **Slide Thirteen**

"How do we go out of the box? How do we do that? What are our mechanisms? Do we need to wait for an apple to fall on our heads? Or are there some specific techniques? Do you remember this convergent and divergent thinking? If we want to go out of the box, we need to add something more, a little spice to our basic, everyday, convergent thinking. Something that goes beyond it. It is a creation of variation. Something wrong, something absurd, something which is not relevant, something which takes us far.

What am I talking about? Yes, divergent thinking, divergent information. We need a little bit of that divergent information to cross the borders within our minds from what we know to what we haven't yet thought about. And it takes us to a place where we don't know where to go. We are suspended. It is like a middle game in chess. Where do you go when you're out of the box? You don't have a pre-set direction. So, it is a potential, a situation that brings us to a feeling that we should immediately go back. This does not make any sense, let's go back to a safe place. Let's go back inside the box. That's a temptation that we need to resist. We need to value long thinking. Normally we talk about brilliant thinking, fast-thinking, deep thinking but now we are talking about something different. Long-thinking. What does it mean? It is some thought that takes us far. It is as if you are reading poetry or listening to music. You don't judge the single notes, you don't judge the single words. It is an ensemble that gives you a feeling and takes you far. We must do the same things with our concepts. We need to go far. And so, we can use an association of ideas, combination of ideas, extraction of principles and application of those principles to the areas where they have never been applied before. We need to be open-minded; we need to be fluent, look for alternatives and not for the correct answer. Because when you think creatively, there is not a single, correct answer. Instead, there are many possible alternatives.

And suppose now that we are lucky, we generated a new idea, what is the value of that? How do we assess the value of a new idea? It is very difficult if it is new. Because you have never seen that before. Nobody else has seen that before. It is as if we landed on a new planet. Undiscovered territory. And it is difficult to understand the value of something new, first of all, because we don't feel entitled to be inventors. Who am I to be a generator of that new idea? And probably this has been thought about before. If this is correct, somebody else would have done it before me, this is our natural mechanism with which we kill our ideas. We have to resist that. We must look for a match between the new idea and our initial drive, our initial focus. Or evaluate the idea per se. For its value. And maybe you see that it is something that solves another problem which was not yours. We just need to have the eyes to see that, to notice the difference."

### **Slide Fourteen**

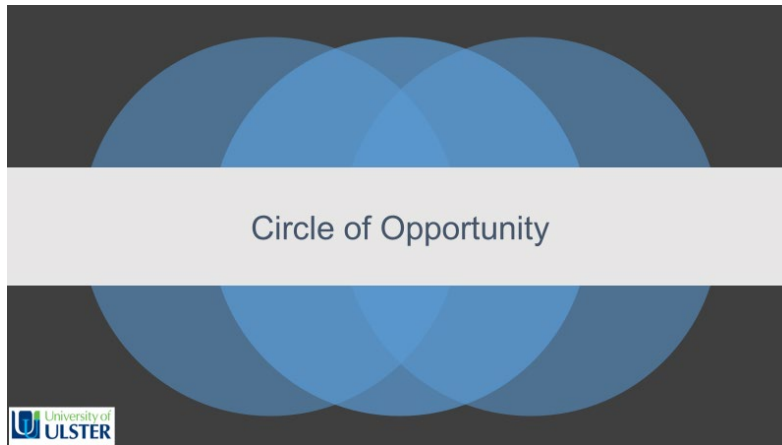
"So, how do we do this? There are four guidelines for divergent thinking, which I would like you to remember and practice within the next part of this creativity workshop. First of all, I want to ask you to suspend your judgement. Just temporarily, not forever, to allow your brain to find more directions, build new connections. Secondly, go for quantity. Intentionally force yourself to produce lots of options, it is what great creators do. Make connections, see to build off the ideas, use them as catalysts. Remain open to novelty. Intentionally push yourself to come up with original thoughts."

### 3. Break (10 minutes)

### 4. The Practical Element of the Intervention (60 minutes)

The participants are provided with the tools for creativity (flip charts, a pair of die, markers).

#### Slide Fifteen

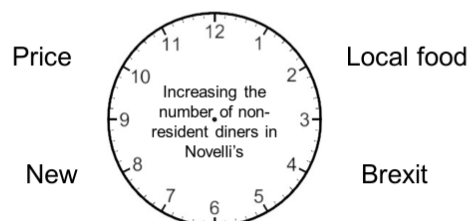


What is the “Circle of Opportunity”? It is a tool that helps to generate ideas very quickly by, what we call, free association. We get random combinations of problem attributes or problem characteristics, associate them together and see what we can do with them.

So, this tool helps us to discover new meanings, new relationships or work associations to an original problem. It also helps us to generate original ideas for problem-solving or process improvement. Thirdly, it helps is to selectively study randomly linked combinations and search for new ideas and new solutions. So, it is quite a useful tool.

#### Slide Sixteen

##### Instructions



How do we go and create new ideas? First, you need to have a large circle and inside the circle – numbered points like in a clock 1 to 12. On the outside of the circle, we add attributes or

characteristics of the problem that we are trying to investigate. Then we need to have a pair of dice and roll them to generate random combinations. Roll one dice to come up with one number, and then roll the second dice to come up with the second number. For example, we may roll dice and have numbers 2 and 4. This means we would need to investigate, brainstorm and study the association between attributes 2 and 4. What may be a connection between Local food and Brexit? The important moment here is the associations are being generated randomly. And we look at the associations to see if we can generate new ideas.

### **Slide Seventeen**

Some questions that we need to ask once we are doing this.

The first question is what associations can I make? Secondly, what do the associations remind me of? Is that the problem that was solved in the past? Is there any idea that somebody else came up with based on these associations? Thirdly, what analogies can you make from the associations? Is there something else that you compare them to? The fourth question is what are the relationships between the associations and the problem? Sometimes you can have very loose associations between two attributes and sometimes very strong relationships, but what are the overall associations between the attributes and the problem being resolved? And finally, and probably the most important question is are there any new insights based on what you are doing?

### **Slide Eighteen**

The participants are assigned to work in teams, 4-5 participants each. Problem statement for participants from each organisation. The problems are provided in advance by HR/ General Managers.

#### **The Stage of Idea Collection (5 minutes)**

The participants formulate the 12 attributes specific to the challenge. All ideas are reflected on flip charts.

#### **The Stage of Idea Generation (15 minutes)**

The participants throw one dice to choose the first attribute. Then they roll the second dice for the second attribute. The attributes are reflected on flip charts. The participants explore the attributes both separately and in combination. They start with the first idea and keep exploring connections until they trigger an idea. All associations are reflected on flip charts as they occur in this process.

#### **The Stage of Idea Consolidation (10 minutes)**

The participants explore connections between the association (from the previous stages) and the challenge. In this process, the questions below facilitate ideational behaviour:

- What associations can I make?
- What do associations remind me of?
- What analogies can I make from associations?
- What are the relationships between the associations and the challenge?
- Any new insights?

### **The Stage of Idea Evaluation and Choice (10 minutes)**

The Participants pick the idea and build it into a realistic decision. They are invited to draw their solutions. They are advised to consider the process of how their solutions can be incorporated within the workplace.

### **The Stage of Idea Elaboration**

The participants finalise their solutions. The process ends with group presentations.

### **5. Feedback and final remarks. Reminders to complete the self-assessment after the workshop and provide feedback**

The intervention is coming to end. The facilitator thanks everyone for their participation.



## APPENDIX FOUR: The Structure of the Multifaceted Creative Self-Assessment

### 1. Confirmation of Internal Consistency of the Creative Self-Assessment

Prior to the HRD intervention, the internal consistency of the creative self-assessment was analysed using the reliability analysis (n=72). The validity analysis was not performed considering the small sample size. The reliability analysis involved investigations into the strength of the relationship of the scales as constructs of the integral tool and their internal fit (Table 1 and Table 2). In the process of analysis, the self-assessment decreased in the number of scales (from 10 to 9) and the items measuring the scales (from 49 to 43). This action step increased internal consistency across the scale of *Stable traits*, with the Cronbach's alpha growing from  $\alpha = .522$  to  $\alpha = .785$  (see Table 3). Furthermore, the entire scale *Agreeableness in the job-relevant context* was eliminated as well as several items from the scales *Openness to experience in the job-relevant context*, *Conscientiousness in the job-relevant context*, and *Extraversion in the job-relevant context*. The remaining scales, i.e., *Surface self-concept characteristics*, *Perception of the work environment* were retained without further alternations.

**Table 1 Reliability Analysis of the Self-Assessment Instrument, N = 72**

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	Number of Scales
.848	.853	9

**Table 2 Connections of the Scales from the Self-Assessment with the Total Score, N=72**

Constructs	Number of Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Openness to experience in the job-relevant context	4	.558	.832
Conscientiousness in the job-relevant context	4	.609	.828
Extraversion in the job-relevant context	3	.674	.824
Neuroticism in the job-relevant context	5	.602	.828
Creative Self-Efficacy	2	.648	.824
Creative Process Engagement	3	.571	.831
Management Practices	8	.657	.824
Organisational Motivation	9	.336	.854
Resources	2	.326	.854

**Table 3 An Overview of the Scales of the Self-Assessment, N= 72**

Constructs / Scales	Old number of items	New number of items	Old Cronbach's alpha	New Cronbach's alpha
<b><i>Stable personality traits</i></b>	<b>22</b>	<b>16</b>	<b>.522</b>	<b>.785</b>
Openness to experience in the job-relevant context	6	4	.556	.691
Conscientiousness in the job-relevant context	5	4	.703	.753
Extraversion in the job-relevant context	4	3	.365	.582
Agreeableness in the job-relevant context	2	0	.224	-
Neuroticism in the job-relevant context	5	5	.760	.760
<b><i>Creative self-concept characteristics</i></b>	<b>5</b>	<b>5</b>	<b>.733</b>	<b>.733</b>
Creative Self-Efficacy	2	-	.840	-
Creative Process Engagement	3	-		
Surface self-concept characteristics		5		.840
<b><i>A driver / perception of the work environment</i></b>	<b>22</b>	<b>22</b>	<b>.748</b>	<b>.748</b>
Management Practices	8	8	.707	.707
Organisational Motivation	9	9	.538	.538
Resources	2	2	.360	.360
Outcomes	3	3	.571	.571
<b>TOTAL</b>	<b>49</b>	<b>43</b>	<b>.767</b>	<b>.848</b>

The results of descriptive statistics and correlations as shown in Table 4 below highlight that eight out of ten scales are strongly inter-correlated,  $p < .001$ . However, the results point out that the scales Organisational Motivation and Resources have not built statistically strong relations with the other scales such as Stable personality traits and Surface self-concept characteristics. Of the constructs, only Neuroticism in the job-relevant context built a statistically strong relationship with Organisational Motivation ( $r = .26$ ,  $p < .05$ ), implying that levels of emotional stability were influenced by individual perceptions of organisational motivation (e.g., encouragement of creative ideas, availability of resources to facilitate individual creativity). Finally, the two remaining scales i.e., Organisational motivations and Resources represent the least statistically important measures to investigate the impact of the HRD intervention on individual creativity, because of low collinearity between the scales as the constructs of the instrument. However, these insights should be confirmed with the larger sample therefore there is a scope for future research and analysis.

**Table 4 Results of Descriptive Statistics and Correlations<sup>4</sup>, N=72**

N	VAR	M	SD	1	2	3	4	5	6	7	8	9	10
1	OPN	3.83	.73	—									
2	CNS	4.11	.73	.34**	—								
3	EXT	4.11	.66	.53**	.60**	—							
4	NEU	3.58	.80	.39**	.57**	.47**	—						
5	CSE	4.03	.81	.49**	.46**	.66**	.61**	—					
6	CPE	3.63	.84	.67**	.45**	.51**	.47**	.58**	—				

<sup>4</sup> \* $p < .05$ ; \*\* $p < .001$  for all two-tailed correlations. VAR – Variable; M – Mean; SD – Standard deviation, OPN – Openness to experience; CNS – Conscientiousness; EXT – Extraversion; NEU – Neuroticism; CSE – Creative self-efficacy; CPE – Creative process engagement; ME – Managerial encouragements; OM – Organisational motivation; RES – Resources; OUT – Outcomes

7	ME	3.72	.70	.41**	.44**	.52**	.29*	.37**	.33**	—			
8	OM	3.15	.85	.16	.17	.07	.26*	.10	.18	.45**	—		
9	RES	3.47	.83	-.01	.23	.21	.20	.09	-.60	.52**	.45**	—	
10	OUT	3.47	.71	.36**	.35**	.39**	.27*	.46**	.37**	.49**	.28*	.40**	—

## 2. Structure of the Creative Self-Assessment Used in This Research

Dear Employee,

my name is Anastasia. I am a second-year PhD student in the Ulster University Business School.

I am currently undertaking a research study to understand the role of creativity in individuals and the contribution each person can make to organisational creativity. More specifically, I want to explore how creativity can be developed and enhanced via certain intervention strategies. Related to this, I have created a complex self-assessment tool involving self-evaluations of personality traits, self-concept characteristics, and perceptions of the work environment. I kindly ask you to complete the assessment.

To help familiarise you with the terminology, I offer you a couple of definitions.

**Creativity** is understood as the ability to flexibly produce new and useful ideas to new or existing problems. I acknowledge that participation in such activities requires an individual and voluntary decision.

**Personality traits** are viewed as established, distinguishing characteristics in the way people feel, behave, and think.

**Self-concept characteristics** are results of your personality traits, which are indicative of your own assessment of your creative potential.

I thank you for your cooperation!

**For the statistical processing of the assessment tool, I want to start by asking several general questions. Please, indicate the statement that best fits you.**

What is your gender?

- 1) male
- 2) female
- 3) prefer not to say

What is your age?

- 1) under 20
- 2) 21-30
- 3) 31-40
- 4) 41-50
- 5) 51-60
- 6) above 60

How many years have you been with your organisation?

- 1) less than a year
- 2) 1-3 years
- 3) 4-6 years
- 4) more than 6 years

**This is the main part of the assessment tool.** It should take no more than 10 minutes to complete the assessment.

Please, read the statements below and express your opinion.

**SECTION ONE**

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
1	When I am considering job solutions, I like to follow very unusual thoughts to see where they might lead					
2	I prefer to stick with job tasks I do well rather than to try new tasks					
3	I like to hear about how others develop their ideas					
4	I like training in new ways of working or dealing with problems					

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
5	I keep myself informed of any new developments in the area of my expertise and make intelligent decisions					
6	I strive for excellence in developing new and useful ideas to work tasks					
7	I know how to organise my time so as to get new job tasks done on time					
8	When I start work on new job tasks, I can always be counted on to follow through					

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
9	My colleagues often look to me to make decisions					
10	I like being a part of vivid and new solution-seeking work groups					
11	At work I am known as a warm and friendly person					
12	My colleagues often look to me to make decisions					

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
13	I often feel fearful and/or anxious about new and uncommon work tasks					
14	When I do not know how to fulfil new job tasks, I feel discouraged and feel like giving up					
15	I often feel inferior to my colleagues who I find more creative and successful					
16	I feel I am capable of coping with most of challenging tasks, which ask for creative thinking					
17	Even if everything seems to be going wrong at work, I can still make novel and useful decisions					

**SECTION TWO**

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
1	I have confidence in my ability to solve problems creatively					
2	I have a knack for further developing the ideas of my colleagues					
3	I try to devise potential solutions that move away from established ways of doing things in my department					
4	I take risks in terms of producing new ideas in performing my job					
5	I try out new ideas and approaches to problems at work					

**SECTION THREE**

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
1	My boss is open to my new ideas					
2	People in my work group are open to new ideas					
3	I get constructive feedback about my work					
4	In my work group, people are willing to help each other					
5	Within my work group, we challenge each other's ideas in a constructive way					
6	I feel that I am working on important projects					
7	I feel challenged by the work I am currently doing					
8	I have the freedom to decide how I am going to carry out my projects					

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
9	New ideas are encouraged in this organisation					
10	This organisation has a good mechanism for encouraging and developing creative ideas					
11	In this organisation, there is a lively and active flow of ideas					
12	People are encouraged to solve problems creatively in this organisation					
13	In this organisation, top management expects that people will do creative work					
14	People are recognised for creative work in this organisation					

15	People are rewarded for creative work in this organisation					
16	People in this organisation can express unusual ideas without the fear of being called stupid					
17	People are too critical of new ideas in this organisation					

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
18	The facilities I need for my work are readily available to me					
19	There are unrealistic expectations of what people can achieve in this organisation (R)					

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewh at agree	Strongly agree
20	Overall, my work environment is conducive to my own creativity					
21	A great deal of creativity is called for in my daily work					
22	I believe that I am currently very creative in my work					

Additional questions in the pre-intervention self-assessment

1	What are the TWO most important factors SUPPORTING creativity in your current work environment?
	Organisational attitudes, structures, and procedures
	Management
	Team or co-workers
	The work or the project
	Resources available
	Time or workload
	Myself
	External factors
	None
	Others (please specify)
2	What are the TWO most important factors INHIBITING creativity in your current work environment?
	Organisational attitudes, structures, and procedures
	Management
	Team or co-workers
	The work or the project
	Resources available
	Time or workload
	Myself
	External factors
	None
	Others (please specify)

### **Additional questions in the post-intervention self-assessment**

1. Do you find the workshop on creativity a useful experience for yourself?

Yes

No

Your comment is much appreciated

2. What new items have you learned during the workshop?

Meaning of creativity

Thinking styles

Creativity techniques

Creativity model

Others (please explain)

3. Did you change your attitude to personal creativity after the workshop?

Yes

No

Please expand on your answer

4. Did you start to practice more creativity at work after the workshop?

Yes

No

Please give examples of your more creative behaviours

5. Was the warm-up exercise 'A penny for your thought' contributory to your creative thinking?

Yes

No

Please leave your comment on this

6. Did you find it useful to employ the 'Circle of Opportunity' during the workshop?

Yes

No

Please leave your comment on this

7. Have you used the 'Circle of Opportunity' tool since the workshop?

Yes

No

If your answer is 'yes', please expand on this

8. Did you keep working on the problem after the workshop and develop more ideas?

Yes

No

If your answer is 'yes', please expand on this

9. Would you recommend this creativity workshop to your colleagues?

Yes

No

10. Would you be happy to take part in the follow-up interview?

Yes

No

11. Do have any suggestions or recommendations?



## APPENDIX FIVE: The Observation Protocol Used During the HRD Intervention

The following observation protocol was used to identify and reflect the individual and team dynamics during the HRD intervention. This protocol was used in each case organisation; the information was recorded in line with observations at individual and team levels.

**Table 1 Observation Protocol of Individual Behaviours during the HRD Intervention**

Stage	Resources	Behaviours and Activities
Background Information		
Observer:	Data of Observation:	
	Duration of Observation	
	Total number of Attendees:	
Section One: Theoretical Part of the HRD Intervention		
This session involves a theoretical introduction to the problem of creativity (including definitions, the importance of creativity to any employee, thinking styles that are associated with creativity) and involves several warm-up exercises.		
Purpose	Purpose	
Resources	Resources	
Major activities	Major activities	
Major activities	Formal presentation by the facilitator	The presentation is focusing on the topic of creativity (definitions, origins of creativity, the role of creativity for employees), the model of creativity and thinking styles
	Break-out activities: 1. Hands up if you feel like you are naturally creative 2. Keep your hands up or raise your hand if your organisation encourages you to be creative 3. Keep your hand up or raise your hand if you think that you are creative in your current job	Yes/No answer (if the hand is up, this means 'yes'; if the hand is down, this means 'no')
	An exercise 'A Penny for your thoughts'	1. Involvement in discussion as a team. 2. Adding/considering the creative context. 3. Sharing discussion using the creative context
	An exercise 'A Penny for your thoughts'	1. Attempts to solve on their own. 2. Number of attempts undertaken.
Comments:		
Section Two: Practical Part of the HRD Intervention		
This session involves a practical element of the intervention where the workshop participants do creative problem-solving to an organisational problem. The CPS process is used to guide the participants throughout the stages of activity.		
Purpose/goal	Purpose/goal	
Resources	Resources	
Structuring activities	Structuring activities	
Major activities	Major activities	Major activities
	Ability to explore connections between the 2 problem attributes	Example: Behaviours:

	Ability to explore connections between the 2 problem attributes in relation to the organisational challenge	Example: Behaviours:
	Ability to explore the ideas, choose the most valuable ideas and develop in a form of final solutions	Example: Behaviours:
	Ability to develop final solutions	Example: Behaviours:
Comments:		

Source: adapted from Creswell (2003)

## **APPENDIX SIX: Sample Interview Guide**

The following questions were used for interviews with the research participants. They were used as a guide; the researcher recorded the answers then transcribed and analysed the information using thematic analysis (see Chapter Five for full discussion).

1. How has the workshop changed attitude to your creativity?
2. Have you made extra effort for creativity/ more creative behaviour since the workshop?
3. What aspects of the workshop did you find most contributory to your more creative behaviour? (if struggled, teamwork, facilitator involvement, challenging problem, work with different instruments/ techniques)
4. How did play aspects promote your creative thinking, i.e., die throwing, circles of opportunities, 9 dot-challenge?
5. How did the role of workshop facilitator influence the training? Could you give an example?
6. How did the teamwork help your creativity?
7. Have you got a creative achievement/ creative recognition at work since the workshop?  
Yes – Please describe your most creative experience since the workshop, please include detail on the creative technique incorporated?  
No – Could you identify reasons for this?
8. How did your creative effort influence the organisation? Yourself?
9. Could you identify/ suggest any further activities helping your organisation to promote your creativity?

The following questions were used for the interviews conducted with HR / General Managers in case organisations.

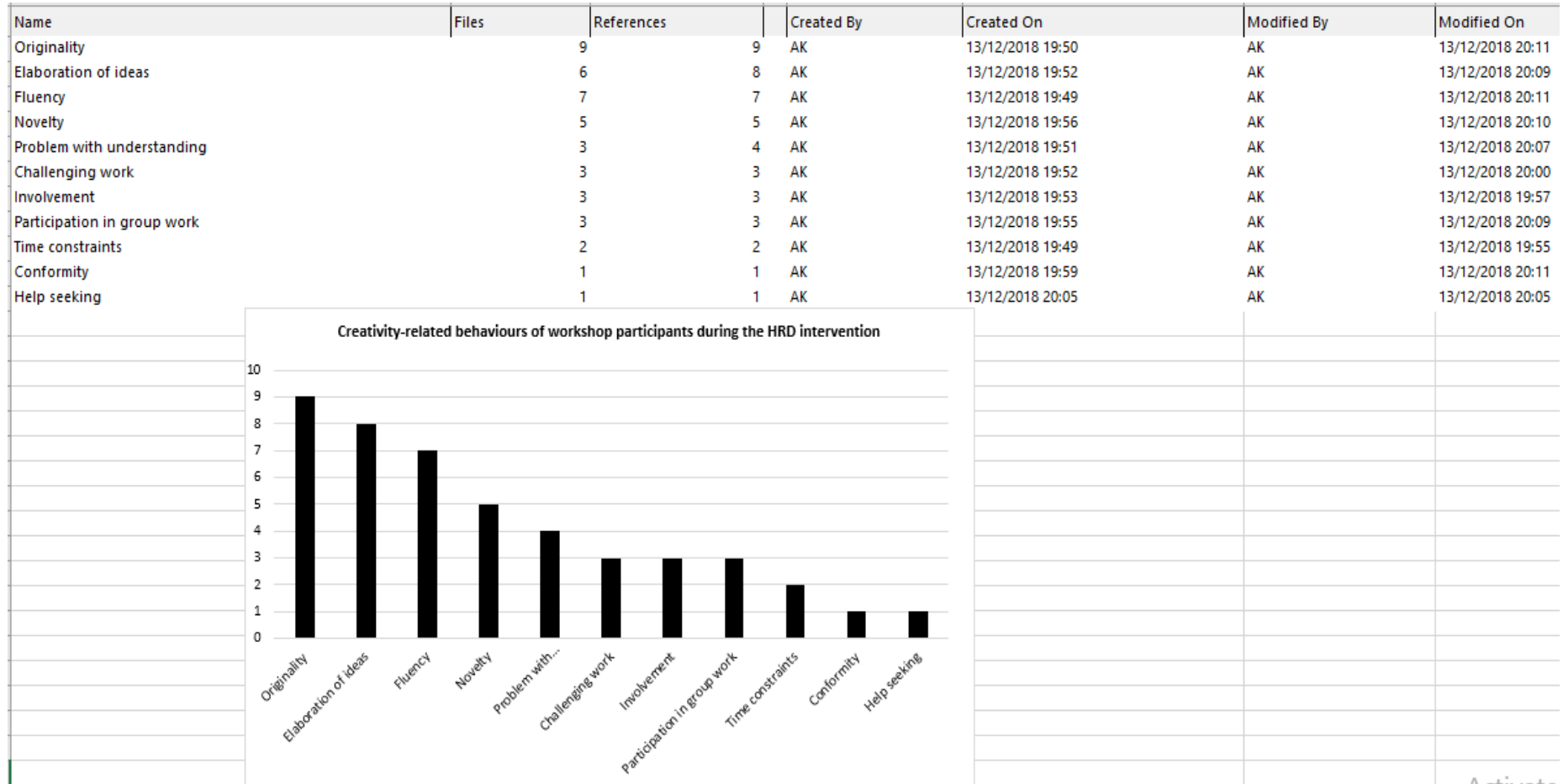
1. How would you evaluate the value of the workshop on your employees/ organisation?
2. Have you identified/ found any change in their creative behaviour since the workshop? Before and after the training?
3. What kind of change have you identified in your employees since the workshop? i.e., preference for group work, more active involvement in problem solving, application of new tools and techniques etc.
4. How did the change in their creative behaviour contribute to organisational performance? Individual performance?
5. What creative ideas/ solutions have been supported by the organisation?
6. If any of your employees have been recognised/ rewarded for their creative effort by the organisation? How?
7. Do you have any plans for incorporating further activities or trainings on creativity for your employees? What kind of plans?

## APPENDIX SEVEN: Analysis of the Pilot Workshop

**Table 1 Analysis of Participant Observations from the Pilot Workshop (for discussion see Chapter Five)**

When	Event	Problem	Research Role	Key Observations
November 2018	The Festival of Social Sciences (ESRC sponsored event): 'Stimulating SME Innovation and Creativity through HR Development'.	'Difficulty in attracting/ recruiting the right talent'.	Facilitator/ observer. Delivered the creativity workshop for 9 participants	<p>Duration of the workshop: 30 minutes            Facilitator characteristics: a brief explanation of the technique 'Circle of Opportunity', introducing the workshop problem.            Engagement levels – 2 participants were less engaged. A total number of three groups emerged.</p> <p>Observations of PT8            Formulating 12 attributes of the problem  <i>The participant is very active, generate most of the attributes. Rolls die and records the numbers on the flip charts provided.</i></p> <p>Connections between the 2 problem attributes  <i>The participant is actively involved in the discussion and tries to involve the others. Asks for more clarification of the task (clarifying the task). Tries to create and record new ideas (use of the flip charts).</i></p> <p>Connections between the 2 problem attributes in relation to the organisational challenge  <i>The participant is actively involved in creative problem solving, suggests a new and somewhat original view on the problem. He reflects ideas on the flip charts, discusses his ideas with the other participants (potentially low impact of trust).</i></p> <p>Exploring ideas, choosing the most valuable ideas and developing in a form of final solutions  <i>The participant develops and presents the final solution.</i></p> <p>Very good feedback, willingness to engage in the post-study.</p>

**Figure 1 Results of Analysis of the Observation Protocol from NVivo**



## APPENDIX EIGHT: Participant Consent Form

Anastasia Kulichyova  
PhD Researcher  
Ulster University  
3C08  
Shore Road  
Newtownabbey, BT37 0QB  
Tel: 073 0576 8069  
E-mail: kulichyova-a@ulster.ac.uk

18 June 2019

Dear Participant

My name is Anastasia Kulichyova. I am a PhD researcher in the Ulster University Business School. I am currently undertaking a piece of research for academic qualification and working on the project entitled "The role of Human Resource Development as an enabler of creativity". My work is focused on exploring the role of creativity in individuals and the contribution of each employee to organisational creative impact. I am driven by understanding that creativity can be enhanced by awareness and intervention, to help employees overcome barriers and become more creative at work. The purpose of my research project is to investigate the role of creativity from strategic HRM perspective and training interventions as mechanisms of influence that can initiate, promote and sustain creative thinking over time.

To verify my research approach, I need support from organisations in Northern Ireland. I am specifically focusing on companies from the Tourism Sector, which I find more strategic in unleashing and developing the individual creative potential to help them stay competitive in the marketplace. The Hastings Hotel Group has been selected to participate in my study as it is a member of this sector and so is a key source of information facilitating this investigation. Would you be willing to take part in this research study?

The research will ask employees from the relevant department to complete an online self-assessment tool. The questions included within the survey are designed to collect information on personality traits, self-concept creative characteristics, and perceptions of the work environment. Those who return the form will be invited to participate in a half-day creativity workshop. Any information collected as a result of this research will be treated in the strictest confidence and used only for the purpose of academic research.

Your participation in this research will help to generate a better understanding of the role of creativity in individuals and provide a fresh and unique insight into the potential of training interventions in individual creative behaviour. If you have any queries or concerns regarding this research, please do not hesitate to contact myself or my academic supervisors Dr. Sandra Moffett and Dr. Martin McCracken. Please, find their contact details below.

Dr. Sandra Moffett

Ulster University  
Business and Management Research Institute  
Tel: 028 7167 5381  
Email: sm.moffett@ulster.ac.uk

Dr. Martin McCracken

Ulster University  
Business and Management Research Institute  
Tel: 028 9036 8346  
Email: m.mccracken@ulster.ac.uk

I appreciate your cooperation and look forward to receiving your response.

Regards,  
Anastasia Kulichyova

## Consent Form

The role of Human Resource Development as an enabler of creativity

**Title of Project**

---

**Subtitle where appropriate**

---

**Name of Chief Investigator**

---

- |   | <i>Please initial</i> |
|---|-----------------------|
| • I confirm that I have been given and have read and understood the information sheet for the above study and have asked and received answers to any questions raised   | [     ]               |
| • I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without my rights being affected in any way  | [     ]               |
| • I understand that the researchers will hold all information and data collected securely and in confidence and that all efforts will be made to ensure that I cannot be identified as a participant in the study (except as might be required by law) and I give permission for the researchers to hold relevant personal data | [     ]               |
| • I agree to take part in the above study   | [     ]               |

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<b>Name of Subject</b>	<b>Signature</b>	<b>Date</b>
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		18 June 2019
<b>Name of person taking consent</b>	<b>Signature</b>	<b>Date</b>

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<u>Anastasia Kulichyova</u>		18 June 2019
<b>Name of researcher</b>	<b>Signature</b>	<b>Date</b>

One copy for the subject; one copy for the researcher.

## APPENDIX NINE: The Results of Thematic Analysis

First-order codes	Second-order codes	Illustrative example	Overarching dimensions
<ul style="list-style-type: none"> <li>- Acquisition of new knowledge</li> <li>- Learning new thinking styles and creativity techniques</li> <li>- Application of knowledge about creativity (including thinking styles and creativity techniques) into own work practices</li> </ul>	Creativity training outcomes	<p><i>'In the beginning, I did not think that you could teach creativity in someone that it does not come naturally too. But with the new techniques learnt I feel it enhanced my way of thinking and seeing things.'</i> (PT10 from Case One)</p> <p>The seven study participants thought that the HRD intervention was effective to learn about creativity, namely new thinking styles and creativity techniques.</p> <p><i>'Me as a person, I did not think I was that creative, to begin with, I did not like being creative, but I think from doing the workshop I realised why it was. Because I just did not know how to be creative but in a progressive manner. But from doing the workshop I found to benefit from it by being creative about different things, so I think it showed me how to be creative but in a positive way so I can change things.'</i> (Paul)</p> <p><i>'It is hard to set aside time at times, but I create mini 'Circle of Opportunity' in my planner to try and find links between various problems I am having.'</i> (PT1 from Case Four)</p>	Changing perceptions of creativity at the individual level
<ul style="list-style-type: none"> <li>- Influence on personality traits (Openness to Experience, Conscientiousness, Neuroticism)</li> <li>- Influences on surface traits (risk-taking, idea generation)</li> <li>- Confidence in ability to do creative work</li> <li>- Interest in teamwork</li> </ul>	Influencing creativity traits	<p>The results of creative self-assessment demonstrated an influence of the HRD intervention on stable and surface traits in the sample of the seven study participants</p> <p><i>'Now I think I am a bit more open in a kind of approaching it [problem], trying to come up with more creative ideas.'</i> (Paul)</p> <p><i>'I really liked the teamwork element in the creativity workshop and try to use it more... because whenever you try to get a solution for something, you just think like oh, I can't, I can't do this. But having a team and more people it really works.'</i> (Kerry)</p>	



		<p><i>'I came up with a creative idea to develop and increase revenue in the workplace throughout the weekends in August and gained more confidence to get myself and my team involved in the development of this creative idea.'</i> (Emma)</p>	
<ul style="list-style-type: none"> <li>- Development of new thinking styles and creative practices</li> <li>- Influencing beliefs/ views on personal creativity</li> <li>- Use of artefacts to develop ideas</li> </ul>	Influencing attitudes to creativity	<p><i>'For me personally, the creativity workshop allowed me to think a bit more outside the box.'</i> (Jack)</p> <p><i>'It just allowed me to be able to think a bit more outside the box, whenever I deal with different scenarios in my job role, there are situations requiring me to try and figure out a way to approach things.'</i> (Sara)</p> <p><i>'It was all about thinking differently, I especially like the exercise with a stand with a clock and all ['Circle of Opportunity']. It was very useful because it helped me see a different way of thinking on the problems... I mean, when we rolled the die and were trying to identify many different ideas.'</i> (Emma)</p> <p><i>'... got me thinking of different ideas, brought about a change in my attitude to come up with more creative ideas.'</i> (Kerry)</p> <p><i>'I am thinking about the clock [Circle of Opportunity], whenever you put different solutions on it, yes, this is kind of a mind map helping find more than one solution and see which one works better.'</i> (Emma)</p>	
<ul style="list-style-type: none"> <li>- Managerial support of creativity</li> <li>- Existing practices of teamwork in organisations</li> <li>- Low self-reflection of personal creativity</li> </ul>	Perceptions of the creativity work environment	<p>Prior to the creativity workshop, the seven study participants (except Jennifer) thought that they were not naturally creative and that they were not creative in their work</p> <p>The results of creative self-assessment prior to the HRD intervention showed that the seven study participants thought that existing managerial practices around creativity and practices of teamwork were the most</p>	Changing perceptions of creativity at the organisational level

		contributory to their creativity in their organisations (Cases One and Two)	
<ul style="list-style-type: none"> <li>- Influences of the HRD intervention on individual and organisational performance</li> <li>- Development of trust from senior managers</li> <li>- Identifying new opportunities for creativity at work</li> <li>- Desire to take an initiative in relation to creativity</li> </ul>	Learning about creativity	<p><i>'I took initiative to work on the project to do Reduce Reuse Recycle and I am trying to work out how many different ways we can do to be more beneficial in terms of reduce-reuse-recycle. It has been really helpful to use the tool ['Circle of Opportunity'] from the workshop, it helped me be more creative. I have been using that with the group of people; it will be something I will use more in the future.'</i> (Paul)</p> <p><i>'We went with some of the deal-type websites...something that we then worked with to deal with the work problem... And it made a significant increase in the number of local residents using the restaurant.'</i> (HR Manager from Case One)</p> <p><i>'Due to my solutions to the work problems I developed that trust from my manager.. to say that I can be creative.'</i> (Sara)</p>	
<ul style="list-style-type: none"> <li>- Incubation of creativity after the HRD intervention</li> <li>- Time for the gestation of training experiences is required</li> <li>- Organisational levels of learning and support (e.g., continual training, organisational encouragements, awareness of the importance of creativity to organisations)</li> </ul>	Transfer of training	<p><i>'Basically – just to be aware of it. There is not always just one simple solution, and it does not have to be right from there. I need to remember that it is always possible to come up with a resolution, but that resolution may not always be obvious.'</i> (Jack)</p> <p><i>'They do have workshops now about to get to know about the company and know about each other. But I think it should be more about how to work as a team, how to solve problems as a team, as staff members, this would really help – anything that would help my career, develop myself.'</i> (Emma)</p>	
<ul style="list-style-type: none"> <li>- Positive affective states whilst completing creative exercises (naturally occurring emotions, appraisals)</li> <li>- Novelty and originality in problem-solving</li> <li>- Difficulty to reflect divergent thinking</li> </ul>	Cognitive creativity characteristics	<p>Positive emotions during the conversation (fun and laughter) (Sara, Jack, Jennifer)</p> <p>Started to discuss more when encouraged by the facilitator (-I think it is really creative. -Really? Thank you! I think it is very cool, I never cooked before!) (Jack)</p>	Warm-up exercises

<ul style="list-style-type: none"> <li>- Active participation of the seven study participants in the discussion</li> <li>- Involvement in memory presentations</li> <li>- Challenges to participate and reflect creativity</li> </ul>	<p>Behavioural creativity characteristics</p>	<p>A conversation about an event from a particular year, sharing memories with partners (Emma, Jack)</p> <p>Presented memory with a clear reference to creativity (i.e., new cooking skills, new requirements and challenges for a new job) (Jack, Jennifer)</p> <p>Some participants did not follow the instructions (e.g., used more than four lines in the 'Nine-Dot challenge' exercise, used ideas of others (PT2, PT8, PT9 From Case Two)</p> <p>Problems with task understanding (i.e., what kind of memory is required for the task, what if the participant could not remember anything particular about the year) (PT7 from Case Three)</p> <p>Attempts to recall the solving strategy (i.e., 'I saw the solution somewhere') (PT12 from Case Three)</p>	
<ul style="list-style-type: none"> <li>- Novelty in thinking</li> <li>- Fluency in thinking</li> <li>- Teamwork increases fluency in thinking</li> <li>- Need for help in the process of idea generation</li> <li>- Negative emotions by less engaged study participants</li> </ul>	<p>Cognitive creativity characteristics</p>	<p>Attempts to formulate new meanings/insights to the attributes (i.e., ideas which were not discussed by other groupmates) (the seven study participants)</p> <p>Observed as the main generators of problem attributes in the group (Jack, Jennifer)</p> <p>The fast development of ideas (the seven study participants)</p> <p>Consulted with participants in other teams about ideas and relevance of ideas to the workshop challenge (PT7, PT10 from Case Two). Such study participants appeared to get back to work with more ideas.</p> <p><i>'It was understanding that it is not just me who have all ideas, I mean just my own ideas. It is using other people's ideas in attempts to develop more ideas.'</i> (Jack).</p>	<p>Idea Collection</p>

		<p>The seven study participants engaged with the facilitator and asked for help, such as clarity about the task, kinds of problem attributes they were supposed to generate</p> <p>Some study participants (not included in the sample of the seven study participants) were likely to reflect negative emotions for teamwork: staying quiet and inactive, cases of boredom (PT1, PT6, PT10 from Case One; PT3, PT5, PT9 from Case Two; PT4, PT7, PT8 from Case Three; PT3, PT7 from Case Four)</p>	
<ul style="list-style-type: none"> <li>- Participation in the process of idea generation</li> <li>- Getting more involved after getting help from the facilitator</li> <li>- Creativity is a challenging task to participate</li> <li>- Workshop instructions ignored by less engaged study participants</li> </ul>	Behavioural creativity characteristics	<p>A vivid conversation about the problem attributes, attempts to contribute with own ideas (the seven study participants)</p> <p>The seven study participants who asked for the facilitator's help; are observed to get back to work with stronger involvement and discussion</p> <p>Some study participants were less engaged in discussion and groupwork than other members of their team (PT1, PT5, PT6, PT10 from Case One; PT3, PT5, PT9 from Case Two; PT4, PT7, PT8 from Case Three; PT3, PT7 from Case Four)</p> <p>Some study participants consulted with other participants (e.g., discussed the problem attributes) rather than the facilitator, tried to get inspiration and ideas from other groups (e.g., attempts to use ideas of the other groups) (PT12 from Case Two)</p>	
<ul style="list-style-type: none"> <li>- Creativity in thinking (novelty, originality, fluency, variety of ideas)</li> <li>- Emergence of cognitive states and choices (naturally occurring emotions, creativity-related emotions such as defending states)</li> <li>- Divergent thinking is a challenging task for the seven study participants</li> <li>- Seeking and getting help from the facilitator in the process of idea generation</li> </ul>	Cognitive creativity characteristics	<p>Attempts to investigate connections between the problem attributes from different and untraditional perspectives (the seven study participants)</p> <p>Generation of a range of different associations between the problem attributes (the seven study participants)</p>	Idea Generation

<p>- Emergence of negative emotions from less engaged study participants)</p>		<p>Attempts to consider an unusual and not common-sense approach to connect the problem attributes (the seven study participants)</p> <p>Some study participants demonstrated their abilities defend own viewpoints (Jim)  <i>'I tell you; the weather relates to the problem of sales decline. How would you improve sales if there would be no customers because of bad weather? It is a very good idea,, I am going to write it down'. (PT4 from Case Four)</i></p> <p>The seven study participants contacted the facilitator and ask about how to associate the attributes. They asked about the strategies to connect the problem attributes, if they were allowed to throw die several times. They were observed to get back to work with stronger involvement and discussion</p> <p>Some less engaged participants were observed to reflect negative emotions (inhibiting for groupwork) such as showing boredom and distanced from groupwork (PT2, PT10 from Case One; PT4 from Case Three)</p>	
<p>- Active forms of engagement in the idea generation stage by the seven study participants  - The artefacts support the process of idea generation  - The artefacts increase motivation to participate  - The idea generation stage is difficult for less engaged study participants</p>	<p>Behavioural creativity characteristics</p>	<p>The seven study participants held a conversation about how to connect the problem attributes, what ideas could emerge out of these connections</p> <p>All study participants rolled and threw a pair of die, some study participants threw die several times to get more scope for ideation (Jennifer)</p> <p><i>'I liked to work with the cubes [a pair of die], for me it was just enjoyable and helpful... It was a sort of a game, and everyone including myself wanted to play in it' (PT1, Case Four)</i></p> <p>Less engaged study participants (not included in the sample of the seven study participants) reflected a tendency for conformity, namely agreeing with ideas of</p>	

		others rather than trying to develop own ideas (PT1, PT6, PT10 from Case One; PT3, PT5 from Case Two; PT5, PT6, PT7, PT8 from Case Three; PT6 and PT7 from Case Four)	
<ul style="list-style-type: none"> <li>- Creativity in thinking (novelty, fluency, elaboration)</li> <li>- Divergent thinking is a challenging task for the seven study participants</li> <li>- Seeking and getting help from the facilitator (idea evaluation, getting more information)</li> <li>- Seeking feedback from the facilitator (collaboration and dialogue)</li> <li>- Professional interest in creativity and motivation</li> </ul>	Cognitive creativity characteristics	<p>Attempts to consider connections from different and untraditional perspectives (the seven study participants)</p> <p>The participant asked for the facilitator's feedback (wanted to make sure that the group was working in the right direction). After getting help, started to generate options more fluently, listed all associations as suggested by the facilitator (Jack)</p> <p>The study participants discussed their ideas with the facilitator prior to presenting (the seven study participants)</p> <p>Further development of associations and ideas produced by other groupmates (the seven study participants)</p> <p>These participants had an obvious interest to come up with a practical solution as the problem was relevant to their work duties (PT5 from Case One; PT6 from Case Two)</p>	Idea Consolidation
<ul style="list-style-type: none"> <li>- The seven study participants remain engaged</li> <li>- Difficulty to follow instructions</li> <li>- The idea consolidation stage is difficult for less engaged study participants</li> </ul>	Behavioural creativity characteristics	<p>The seven study participants remained engaged in conversation about how to connect emerging ideas and associations with the workshop challenge</p> <p>Some study participants looked concerned (i.e., reduced involvement in groupwork and ideation); it appeared that the team did not follow workshop instructions (PT10, PT11 from Case Two)</p> <p>Some study participants looked obviously challenged by the task; however, they avoided interaction with the facilitator and did other things instead (e.g., distraction to the phone, chatting with each other) (PT3, PT12 from Case Two; PT5, PT6, PT7, PT8 from Case Three)</p>	

		<p>Less engaged study participants remained less involved in teamwork; they reflected a tendency for conformity instead, namely agreeing with ideas of others rather than trying to develop own ideas (PT1, PT6, PT10 from Case One; PT3, PT5 from Case Two; PT4, PT5, PT6, PT7, PT8, PT12 from Case Three; PT6 and PT7 from Case Four)</p> <p>Problem with task understanding (i.e., what strategies can be used to connect ideas with the challenge) (PT7 from Case Three)</p>	
<ul style="list-style-type: none"> <li>- Creativity in thinking (novelty and elaboration)</li> <li>- Emergence of cognitive states and choices (naturally occurring emotions, altruistic states)</li> <li>- Seeking feedback from the facilitator (collaboration and dialogue)</li> <li>- Professional interest in creativity and motivation</li> </ul>	Cognitive creativity characteristics	<p>The seven study participants demonstrated attempts to consider 'practicalities' of the solution from untraditional perspectives</p> <p>Defensive states (i.e., PT4 from Case Four): <i>'The participant is actively engaged in discussion:</i></p> <ul style="list-style-type: none"> <li>- <i>The number of hotels is increasing in Belfast (PT4)</i></li> <li>- <i>They are not! (PT5)</i></li> <li>- <i>I tell you, more and more hotels appear. Therefore, the solution should consider... (PT4)'</i></li> </ul> <p>The emergence of altruistic states and attempts to help other teams (i.e., help with the solution) (PT13 from Case Three)</p> <p>These participants had an obvious interest to come up with a practical solution as the problem was relevant to their work duties (PT5 from Case One; PT6 from Case Two)</p>	Idea Evaluation and Choice
<ul style="list-style-type: none"> <li>- Less consistent participation of the seven study participants</li> <li>- Less engaged study participants remained less involved</li> <li>- Some less engaged study participants became more involved (display of convergent thinking)</li> </ul>	Behavioural creativity characteristics	<p>The seven study participants remained engaged in the task and held a conversation about the solution development and refinement</p> <p>Less engaged participants remained less involved in ideation and groupwork (PT1, PT10 from Case One; PT5 from Case Two; PT4, PT5, PT6, PT7, PT8 from Case Three)</p>	

		Some less engaged participants started to participate more in the development of ideas and finalising solutions (PT6 from Case One; PT3 from Case Two; PT3, PT10, PT12 from Case Three)	
<ul style="list-style-type: none"> <li>- Creativity in presentations</li> <li>- Creative style of presentations</li> <li>- Recognition of creativity by others</li> </ul>	Cognitive creativity characteristics	<p>Considered creativity in the manner of solution presentations. Discussed ideas in the context of a creative journey. Discussed the whole ideational process and referred to seven alternative solutions (Jack, Jennifer).</p> <p>Explained that the idea was novel because it was not the same as existing solutions in the organisation (Jack)</p> <p>Asked for questions after completing the presentation and engaged in conversation (Jack, Jennifer, Paul, Emma)</p> <p>Audience impressed by the solutions and recognition: <i>'Wow, how did you come up with such solutions?'</i></p>	Idea Elaboration and Presentation
<ul style="list-style-type: none"> <li>- Teams facilitate individual learning (learning from multiple perspectives, getting greater access to ideas)</li> <li>- Work in teams enhances confidence in creativity (belief in personal creativity, motivation)</li> <li>- Work in teams leads to creative ideas/solutions</li> <li>- Work in teams may not be simple for less engaged study participants (barriers in the communication)</li> </ul>	Teamwork supports	<p><i>'It allowed me to be able to see how other people would deal with certain scenarios and then as worked together in the end to get one final result.'</i> (Jim)</p> <p><i>'During the workshop, it was an understanding that it is not just me who have all ideas. It is using other people's ideas as well to help develop the mine and also to try to come up with better solutions.'</i> (Jack)</p> <p><i>'I liked the teamwork part of the workshop; it is always good to learn from other people I think as well – in terms of being creative. So definitely having that teamwork aspect I thought was probably most useful for me.'</i> (Paul)</p> <p><i>'It was definitely helpful to work as part of the team because they were from other departments there, you know like what I was doing myself was different from somebody else was doing, so we could take their ideas as well, not just my own.'</i> (Kerry)</p>	Creativity enabling forces in the HRD intervention
- The role of facilitators is important: share the expertise and knowledge about creativity using a simple language	Facilitator's support	<i>'I liked those analogies... I think it was an animal, was not it... a piece about animals and how humans required creativity in</i>	



<ul style="list-style-type: none"> <li>- The facilitators should employ an untraditional approach to training (provision of freedom, the use of analogies, no strict rules)</li> <li>- Facilitator's characteristics (enthusiasm about the subject, charisma, an ability to provide help)</li> <li>- Issues of communication between the facilitator and some study participants</li> </ul>		<p><i>the past. You were clearly different to lectures or teachers, I could clearly see that you researched about creativity, and you could actually make me think that anybody could be creative.'</i> (Emma)</p> <p><i>'You were brilliant because you didn't try and guide us down anyone's path, you didn't try to lead us in a certain direction, you allowed us to stay and try more creative ideas by ourselves. You have been there and your way of leading us was really beneficial to our learning.'</i> (Jack)</p>	
<ul style="list-style-type: none"> <li>- Facilitate divergent thinking in the initial stages of CPS (greater variety and quantity of ideas, motivation to explore more ideas)</li> <li>- Support convergent thinking in the later stages of CPS (structure thinking of study participants, keep ideas in one place, visualise the thinking process)</li> <li>- The artefacts can enable playful experiences and result in greater participation</li> <li>- The artefacts can transfer in individual work practices</li> </ul>	The use of artefacts	<p><i>'Since the workshop, I have had group meetings with the team. We use the same structure, techniques, and instruments you showed us on the actual day of training. I use these materials whenever I have meetings and discussions with the staff.'</i> (Emma)</p>	
<ul style="list-style-type: none"> <li>- Completion of the HRD intervention increases curiosity about creativity</li> <li>- Completion of the HRD intervention increases personal interest in creativity</li> <li>- Completion of the HRD intervention increases commitment to creativity</li> </ul>	Motivation	<p><i>'Not only me but everyone in the hotel seems to have tried to use what we learnt in the workshop to change how we think about problems. One of the most recent ones done with the problem of employee engagement... so I wanted to try and use this thinking outside the box and apply the same kind of structure that you did in the workshop in the process of problem-solving.'</i> (Jack)</p> <p><i>'Since the workshop, I went back to the [restaurant] and I took it on myself to come up with a strategy to sell water... I am trying to kind of work out how many different ways we can do something to be more beneficial in terms of reduce-reuse-recycle the water...it definitely helped me be more creative from the workshop.'</i> (Paul)</p> <p><i>'I have had an ongoing [problem] for a couple of months... It is just more me trying to take initiative and to say okay. There is always going to be a solution... and I finally was able to</i></p>	Impact of the HRD intervention on individual performance

		<i>rectify that. I liked the process [of CPS] and will try to do more creative work in the future.'</i> (Sara)	
<ul style="list-style-type: none"> <li>- Completion of the HRD intervention can create feelings of achievement at work</li> <li>- Completion of the HRD intervention can create feelings of recognition at work</li> </ul>	Feelings of empowerment	<i>'I have no words... I got nominated for the Hotel Hero Award through the Northern Ireland Hotels Federation. This hotel nominated me for that award and part of the reason for the nomination was to do with the creative approach that I have taken to the health and wellbeing for the staff. And creativity that I put into that. I received the award; I am so happy! I will avail even more opportunities at work and try to look at things differently.'</i> (Jennifer)	
<ul style="list-style-type: none"> <li>- More organisational support is needed for the study participants</li> <li>- Study participants require rewards for creativity</li> <li>- Study participants want to see more opportunities to do creative work</li> <li>- More opportunities for staff engagement and raising voices about creativity</li> <li>- More training on creativity is needed</li> <li>- Study participants like being reminded about the role of creativity in their organisations</li> </ul>	Incentives for creativity	<p><i>'If there would be more incentive or reward, if people were more encouraged to be creative, were more incentivised somehow to be creative. I definitely think it would help coming out and people would be more creative if we had more opportunities to be creative as well.'</i> (Paul)</p> <p><i>'If we felt like we were encouraged by the management team to participate...if they were like every month or so ... this is your time for your voices to be heard, if you could think of something more creative to make it yours and make it work for yourself, that would be better.'</i> (Sara)</p> <p><i>'Basically – just to be aware of it – that is the big thing I took away from it. There is not always just one simple solution, and it does not have to be right from there. I need to remember that it is always possible to come up with a resolution, but that resolution may not always be obvious.'</i> (Jack)</p>	
<ul style="list-style-type: none"> <li>- Completion of the HRD intervention can lead to the implementation of ideas/ solutions</li> <li>- Completions of the HRD intervention can influence organisational performance/ business efficiency</li> <li>- Completion of the HRD intervention can create new forms of rewards (to support creative thinking of the staff)</li> </ul>	Business efficiency	<p><i>'Using the ideas and feedback from the workshop we have been able to come up with marketing techniques and a new marketing campaign. We have used different things that we learnt at the workshop, to actually try and implement those into the day-to-day runs at the hotel so that is absolutely brilliant for us.'</i> (Jack)</p> <p><i>'Since the new marketing campaign and techniques, we started to do new rewards for our staff. Things like our service charges that put on guest bills... We thought that</i></p>	Impact of the HRD intervention on organisational performance

		<p><i>those rewards would incentivise our staff and encourage them to do more creativity.’ (HR Manager, Case One)</i></p> <p><i>‘Since when I arrived there, they did not sell water at all and within a week of introducing that new formula of how to sell the water, they oversold other water and had to borrow water from the main hotel to build the sale. So definitely positive.’ (Paul)</i></p>	
<ul style="list-style-type: none"> <li>- Completion of the HRD intervention can facilitate the emergence of top-down creativity</li> <li>- Completion of the HRD intervention can facilitate the emergence of creativity from both lower levels of management</li> </ul>	Flow of ideas	<p><i>‘Each month we have a head-of-department meeting and we use that structure you told us to try resolve problems and the most recent one was with employee engagement. I personally have not had any success in coming up with a creative solution, together as a team we definitely have. We have seen that as our employee engagement scores have risen since we’ve done the task, so that was really- really good for us as a hotel.’ (Jack)</i></p> <p><i>‘The creative ideas I came up with... having and providing entertainment, we are working on that at the moment, so it is going to go live in October [2019] I think over a weekend, so it will be good to have that creative idea actually put into place.’ (Emma)</i></p>	
<ul style="list-style-type: none"> <li>- Low consistency in terms of support of creativity at work (no feedback and support, no plans of future creative training)</li> <li>- Communication problems across levels of the hierarchy (poor recognition of creativity by senior management, difficulties to deliver creativity from bottom to upper levels of management)</li> <li>- Communication problems at the individual level</li> <li>- Short duration of the HRD intervention</li> </ul>	Barriers for creativity	<p><i>‘I don’t know if they do [recognise creative effort] to be honest but I just can see that my daily work is better. I have never got feedback; as long as the team works, it is all good.’ (Emma)</i></p> <p><i>‘If someone at the top of kind of the head office team comes up with a new idea or whatever – it is not always filtered down correctly to the rest of the group so being creative does not really show across the whole group, eventually, just a small area but not in a way that I think would encourage people to want to be more creative, develop things further.’ (Paul)</i></p>	

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