Examining the Potential of Design Thinking for Marketing Students in the Context of Workplace Learning and Performance Challenges

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Examining the potential of Design Thinking for marketing students in the context of workplace learning and performance challenges

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Submitted to Cork Institute of Technology, May 2018
Declaration

I hereby declare that this thesis is entirely my own work except where otherwise accredited. The thesis has not been submitted for an award at any other institution.

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Abstract

Design thinking, which initially emerged in the 1980s, has notably been recently receiving increased attention, particularly in business communities, as a process that enables rapid, innovative, and user-centric problem solving (Lockwood, 2010). As the forthcoming generations of marketing graduates enter this ‘Consumer Age’, they will be forced to think innovatively and empathetically in order to adjust to constant and rapid changes in our environment (Hanttu, 2013). Design thinking equips modern marketers with the opportunity to become consumer-centric and effectively generate innovative solutions on a constant basis to complex challenges that exists (Mohr, 2015).

While the concept is gaining increasing hold amongst practitioners, surprisingly little academic attention has been devoted to applications of Design Thinking specifically in Marketing education settings, though the methodology’s strong emphasis on obtaining a deep understanding of the user would seem to connect with the principles of marketing (Glen et al., 2014). Notably, research has mainly been focused on business environments, leaving a gap where empirical research of Design Thinking specific to the Marketing student is needed. Thus the research question that I address in this study looks to determine:

“What potential can Design Thinking offer Marketing students in meeting workplace learning and performance challenges?”

The research design itself based on the principles of design thinking thus applies the iterative, cyclical and human-centred nature of the process, predominantly relying on frequent engagement and interactions with the marketing student to aid in addressing the research question. This thesis contributes to the area of Marketing education by offering insight into the Marketing students’ unarticulated issues and needs in relation to the Marketing curriculum, and in addition explores the most sought after requirements by today’s Marketing industry employees. This study also offers recommendations for the development of a collaborative and engaging toolkit that can support a Marketing students’ creative and solution-orientated thinking.
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Chapter 1: Introduction

1.1 Overview

In today’s digitalized and globalized world, many businesses have been forced to rapidly adapt to the growing intensity of change and complex challenges. In search of new approaches for addressing such dominant factors currently faced by many organizations, innovation has become widely recognized as a source of competitive advantage (Tushman & O’Reilly, 1996; O’Connor, 2008; Crossan & Apaydin, 2010; Govindarajan et al., 2011). Described as a way of thinking that triggers innovation and novel ideas (Hanttu, 2013) particularly suited for addressing ‘wicked problems’ – those particularly difficult to solve or find a solution for (Martin et al., 2007), Design Thinking has proven to be a desirable trait in young business graduates (Kimbell, 2009). While business schools today are striving to better equip students for an “increasingly complex and uncertain environment” (Carlgren, 2013, p. 3), several practitioners have revealed that graduates are still portrayed by employers as unprepared and lacking the skills required for satisfactory solution forming and problem solving (Bennis & O’Toole, 2005; Dyer et al., 2011; Waddock & Lozano, 2013). Furthermore, recent research papers have highlighted the lack of creative thinking practices and practical solution-based thinking within marketing course classrooms (Coakley et al., 2014; Ramocki, 2014; Glen et al., 2014). Students are failing to produce unique or imaginative ideas that are capable of creating competitive advantage (Beverland & Farrelly, 2011). Additionally, when questioned, students can seldom define or describe a particular approach or process that can be used to provoke or guide innovative problem solving (McCorkle et al., 2007).

While Design Thinking is identified as a tool required by great modern marketers (Mohr, 2015, Wood et al., 2011), on researching the ‘designerly’ way of thinking and its appearance in
education, it was notable that sources discussing and analysing the implementation of Design Thinking into the business curriculum were plentiful (Glen et al., 2014; Glen et al., 2015; Coakley et al., 2014; Kelley & Kelley, 2013) and information investigating Design Thinking and its implementation into the Marketing curriculum was scarce (Wang & Wang, 2011).

This thesis seeks to fill this gap, by exploring Design Thinking as a concept, and as a potential contributor to the learning and performance challenges of Marketing students in third-level education. In an age of growing complexity and constantly changing human needs, the necessity to build a generation of design thinkers could not be more significant or timely (Brown, 2018). Design Thinking is seen as a facilitator of unlocking latent creativity, generating effective solutions to problems and “shaping the future” (Goworek et al., 2016, p. 2).

Furthermore, it is suggested that Design Thinking is an essential tool to developing and capturing new value through a better understanding of the customer and their needs (Dell’Era & Verganti, 2010). The modern marketer has the obligation of making an effort to attain and apply “relevant marketing knowledge and skills” (Dacko, 2006, p. 284). Design Thinking’s emphasis on acquiring a deep understanding of the user would seem to mesh seamlessly with the principles of marketing (Glen et al., 2014). In an age of growing complexity and constantly changing human needs, there is an urgent requirement to review practices in marketing education to maximize the learning and preparation of future marketers. As the role in marketing advances, students need to be equipped with both the skills and the tools to actively partake in a society where problems are progressively complex and nuanced understandings are vital (Carroll et al., 2010). It is crucial for today’s education leaders to devise opportunities for innovation to arise within the field of education (Bellanca & Brandt, 2010; Christensen et al., 2008; Finn & Horn, 2013; McCharen et al., 2011; Schlechty, 2009). This thesis contributes to the area of
marketing education by offering insight into the Marketing students’ unarticulated issues and needs in relation to the Marketing curriculum, and in addition explores current requirements of marketing industry employees. This study also offers recommendations for the development of a collaborative and engaging toolkit that can support a Marketing students’ creative and solution-orientated thinking.

1.2 Research Question

The research presented in this thesis examines the challenges experienced by today’s Marketing students and provides insights into the methodology of Design Thinking and its potential impact on the Marketing students’ learning and performance challenges in the workplace. Thus, the following research question will be addressed in this study:

“What potential can Design Thinking offer Marketing students in meeting workplace learning and performance challenges?”

1.3 Thesis Structure

An outline of the structure of the thesis is provided by way of an overview of the chapters that follow.

Chapter Two presents an overview of the theoretical background that informs this research study. This chapter is divided into two parts: (i) Marketing, and, (ii) Design Thinking. The first part to this chapter begins by describing the changing role of marketing through the early eras that existed from the 1900s (Section 2.2.1). Section 2.2.2, follows by examining today’s marketing industry and the challenges and changes that they are forced to adapt to due to compelling societal factors. An exploration on the emphasis on the need of new skills to
compete in this Consumer Age, and a look into a trait that is considered essential in the marketing world: Empathy is presented in section 2.2.3.

The second part to Chapter Two begins by outlining the early contributors in the field of Design Thinking with a view to understanding how the term was originally coined, and investigating how the application of the methodology and its principles have expanded beyond areas specific to design (section 2.3.1). Section 2.3.2 follows, examining Design Thinking's place in the world today and its potential role in Marketing. Section 2.3.3, examines today’s third-level Marketing curriculum with regard to Design Thinking.

Chapter Three offers an insight into the specifically chosen research methods that were used to address the research question. The beginning of this chapter presents the reader with an overview of the research design (Section 3.1). The data gathering methods and data analyses methods are then detailed in section 3.2.1 and section 3.3.2. Subsequently, the final developed solution – the Design Thinking Toolkit – and the participants used to test it are explained in detail in section 3.2.3. Chapter Three then concludes by outlining the ethical issues that were addressed in the study (section 3.3), and also, the limitations of the study (section 3.3).

Chapter Four presents the largely qualitative findings of the study. This chapter is broken down into two parts: (i) Analysis, and, (ii) Synthesis. Section 4.2, presents a detailed analysis of the findings collected in the study, and section 4.3, discusses how the data analysis is synthesized to form new insight. This new insight aided in identifying the possible challenges in which Marketing students are currently facing in the classroom, as well as, potential challenges they will face in this era of ‘digital disruption’ and growing competition, all of which are further discussed in Chapter Five.
Chapter Five begins by offering some further thoughts on the main themes that emerged from Chapter Four (section 5.1.2). Section 5.1.3 of this chapter then describes the potential in which Design Thinking can offer Marketing Students in third-level education, based on this study’s exploration. This chapter concludes with suggestions for potential further research and development, as well as, implications for practice, education and curriculum design (section 5.2).
Chapter 2: Literature Review

2.1 Overview

The research question and the study devised to support it are based on a gap in the empirical research related to Design Thinking and its potential contribution specific to the Marketing student in the context of learning and performance challenges. The study considerations include, but are not limited to, (i) the challenges of today’s modern marketer; (ii) the skill set necessary to address this; (iii) Design Thinking and its place in today’s ‘Age of the Consumer’; and, (iv) Design Thinking’s place in third-level Marketing education.

In section 2.2.1, Marketing’s advancement from a product centric culture to a consumer centric one is outlined. This section introduces the term ‘customer-centricity’ and explores its initial role in the early eras of marketing. Following this, section 2.2.2 examines what it takes for a marketer to remain relevant and gain competitive advantage in today’s complex and changing world. Section 2.2.3 discusses empathy and its influence on a marketer’s ability to generate relevant, targeted, and valuable customer experiences. Section 2.3.1, reviews the antecedents of Design Thinking and introduces the term ‘wicked problems’ and its demand for creativity. Section 2.3.2 then follows with an examination into Design Thinking’s relevance in today’s society as a new paradigm for dealing with challenges. Section 2.3.3 concludes the literature review with the investigation into Design Thinking’s place in marketing education.
2.2 Marketing

2.2.1 The Evolution of Marketing

During the 1920s, when marketing was in its infancy, the prevailing attitude was that a “high quality product would sell itself” (Boone & Kurtz, 2014). This era, also known as the production era, assumed that consumers would choose a product based on its quality, performance and innovative features (Keelson, 2012). It was believed that “if you build it, they (the consumer) will come” (White, 2010, p. 1). Keelson explains that, at that time, it was unnecessary for organizations to consult with consumers on their needs for design and production purposes. This was due to lack of existing competition and insufficient customer knowledge (Keelson, 2012). However, as the era proceeded businesses became aware that they were producing more products than consumers could consume. By the 1930s, businesses became determined to gain a competitive advantage as consumers became more selective about the products that they bought (Bennett & Strydom, 2001). Thus, businesses began to employ ‘aggressive sales’ tactics to compete for customers. The use of excessive public advertising in all available forms became widespread (Moré, 2012). This was known as the sales era. As the era advanced, the ‘hard sell’ tactics became tiresome as consumers began to recognize value for money (Linehan & Cadogan, 2011). Firms noted this change and consequently, shifted their focus from a product centric culture to a consumer centric one, thus the marketing era emerged (King & McDonald, 1996).

Businesses became aware that consumers had both rational and emotional needs, thus by the 1950s the consumer became a crucial component of the marketing process (Barnham, 2014). With the predominant intention of fulfilling their desired satisfactions “more effectively and efficiently than competitors” (Kotler & Armstrong, 2010, p. 55), firms aspired to identify the needs and wants of target markets (Kotler et al., 1996; Linehan & Cadogan, 2011). As suggested
by McKitterick, the principal task of marketing is “not just persuading the customer to buy, but
also to provide and satisfy the needs of the customer” (1958). Subsequently, market researchers
began to borrow more and more from behavioral science (Solomon, 1992, p. 3). The study of
consumer behavior flourished (Sheth, 1985). Marketers carefully examined the way in which
customers selected, purchased, used or disposed of products, services, ideas and experiences
(Solomon, 1992, p. 5; Valentine & Gordon, 2000, p. 189). Understanding consumer behavior
was essential in gaining competitive advantage (Kotler et al., 1996; Belch & Belch, 2001).

By the 1970s consumer dominance grew tremendously and gaining a competitive advantage was
no longer adequate. In addition to understanding the consumer, it became essential to establish
long term, value-added relationships with consumers (Johnson, 2002). Businesses focused on
“creating, delivering, and communicating superior customer value to its chosen target markets”
(Kotler & Keller, 2009, p. 16). An understanding of the customers’, employees’ and marketing
partners’ needs, goals, and desires were necessary for the development of strong relationships
(Johnson, 2002). During this time, the concept of customer centricity emerged. Businesses
sought to develop truly individualized, customer-centric relationships (Wagner & Majchrzak,
2006). They attempted to understand “the world from their customers' point of view” and, if
required, adapt their “behaviour towards their customers, and the nature of what the customers
are being offered, accordingly” (Hewett, 2011, p. 60). Wagner and Majchrzak explain that the
consumer has “specific needs and wants that only they can articulate” (2006, p. 19). It is
important to note that while this articulation could occur during communications with
representatives of the firm they could also emerge in discussions with other customers (Wagner
& Majchrzak, 2006, p. 19). Expanding on this, Fader stresses that it is important for marketers to
thoroughly study these interactions, and in turn, act as ‘solution providers’ in order to create new
insight and satisfy their consumers’ needs. He suggests that customer centricity enables
marketing teams to target the ‘right customer’ successfully with the appropriate channel and message at the right time, thus stimulating deeper and more meaningful connections (Fader, 2012). Numerous researchers and practitioners in the field insist that as the world we live in advances, consumer desires are becoming more varied, flexible and demanding. Hence, asserting that many companies need customer centricity to thrive in the future (Allen & Markey, 2006; French et al., 2011; Keelson, 2012; Sheth et al., 2000). Fig. 1 summarizes the eras of Marketing from the early 1900s and its distinctive characteristics as previously discussed in this section. Social media and personalization are also indicated in Fig. 1 and will be discussed later in this chapter.

**Evolution of Marketing**

![Figure 1. Evolution of Marketing](image)

New technologies, user devices, methods of interaction with other humans and devices enter the domain of research, development and market launch.

- Social Media
- Personalisation

Consumer Centricity

Figure 1. Evolution of Marketing
2.2.2 Today’s Marketing Industry

Today, countless businesses are forced to adapt to the accelerating pace of change and complex challenges that are compelled by the exponential technical growth of the digital revolution and globalization (Aaker, 2010; Harvey, 2006; Napier, Leonard & Sendler, 2006; Pleil & Zerfass, 2014; Sandhu, 2014; Winkler, 2015; Zerfass & Piwinger, 2014). Research indicates that failure to quickly respond to these forces will result in failure to competitively survive (Gijbels et al., 2010; Tynjälä, 2008, p. 131). Further study reveals that today, competitive success is strongly influenced by one’s (i) capability of truly comprehending the needs and desires of humans and, (ii) power to formulate rich and meaningful solutions that address such challenges compelled by the digital revolution and globalization (Diamond & Vredenburg, 2016; Patino et al., 2012; Valle, 2013). The notion of embracing the consumer and their voice into the heart of organizations is, similarly to the past it seems, regarded as a “winning strategy” (Weber & Henderson, 2014). However, numerous practitioners in this field of research have insisted that the connection that exists between businesses and their customers in this complex and changing world has been radically transformed (Diamond & Vredenburg, 2016; Lemon, 2016; Weber & Henderson, 2014; Witell et al., 2011).

According to Weber and Henderson, the 21st Century consumer is more connected, informed, and more vocal than before (Weber & Henderson, 2014). In this ‘information age’, resources are at their fingertips. The rapid growth of technology has given consumers the power to evaluate, choose and share information through social media platforms (Smithee, 2011). The consumer can now “inspect anything and everything”, seek opinions from both comrades and strangers and “evaluate their options”, as well as “share their impressions and experience with others, anytime and anywhere” (Weber & Henderson, 2014, p. 1). Consequently, the emergence of social media has also impacted the way in which the tools and approaches often employed by businesses for
communicating with customers are used. Businesses must now learn how best to utilize social media in a way that is consistent with their business plan (Mangold & Faulds, 2009), particularly if they are striving to gain a competitive advantage (Paquette, 2013). In addition, advancements in social media have equipped marketers with exceptional ways to reach consumers and provide these consumers with new ways to shop or watch their favorite content. Technology related developments such as, (i) the growth of powerful search engines, (ii) improved mobile devices and interfaces, (iii) peer-to-peer communication vehicles, and, (iv) online social networks have broadened the marketers’ ability to interact with their consumer through new touch points, for instance, shopper marketing (Shankar et al. 2011, p. 30). Furthermore, as social media strives to hear the voice of the customer, it is suggested that social media offers a potentially useful alternative to standard research methods that often suffer from low response rates (Patino et al., 2012). As marketing research attempts to understand how potential customers “perceive the brand/product/service” and to “delve deeper into obtaining a better grasp of who their customers are, social media makes an ideal vehicle for such research” (Schlack, 2010, p. 25). This research – providing enormous streams of data tied to people, activities, and locations – in turn contributes to big data. With the increase in the rate of technological change, the different types of data that is accessible for research grows with it.

Big data attempts to channel heavy and complex collections of digital data and draws valuable knowledge and insights from it (Fernandes et al., 2012). Suoniemi, Meyer-Waarden and Munzel assert that big data in the 21st century “guides marketing decisions and helps firms better meet customer needs for competitive advantage” (2018, p. 1). Hung explains that while social media websites are responsible for the generation of vast amounts of big data, they, at the same time, are one of the greatest consumers of it (2018). In addition, big data has provided firms with the ability to personalise their marketing initiatives for customers across a large audience. In an era
of ‘digital disruption’ and growing competition, it is suggested that personalisation gives organisations greater opportunities for competitive advantage as it helps organisations to deliver a unique experience to the consumer. With the aid of big data, patterns in consumer behaviors are distinguished and unique responses to specific triggers are generated in order to provide products and services that are personalised to appeal to individual’s personal taste (Pearson, 2016). An example of mass personalisation can be seen through Netflix, an American entertainment hub for streaming media online. Netflix performs the task of surfacing and prioritising what content the user watches, and in turn, provides apt recommendations on other unique options the consumer may appreciate. Though the growth of technology has proven to be a challenge as companies try to quickly adapt and compete, evidently it also provides businesses with excellent opportunities to engage with and satisfy consumers of the 21st century.

Patino, Pitta and Quinones express that as technology has changed, the use of research techniques has changed with it (2012). This can be observed through the development of social media and its efforts in improving their understanding of the consumer through the employment of mass personalization. However, Kyffin and Gardien assert that companies can no longer depend on the lowest price or advanced technologies such as social media, to gain a competitive advantage (2009). Kurman adds that such a “purely data-driven approach” to gaining a deeper understanding of the customer’s needs “does not reveal why the customers did what they did” (2011). A truly worthy and valuable market offering can only be formulated through the lens of the customer (Witell et al., 2011). Furthermore, numerous practitioners in the field have asserted that though businesses may succeed in obtaining knowledge on the consumer, often many marketers fail to effectively utilize and apply the information that they learn, to what they offer consumers (Achenbaum, 1987; Allen & Markey, 2006; Carlgren et al., 2016; Chahal, 2016; Newman, 2015). Zaltman adds that marketers do not try to comprehend how their customers’
minds function, or specifically, why the customer thinks and behaves the way they do (2003). According to Kurman, the biggest challenge that companies encounter is the ability to utilize consumer data to form a deep perception of what customers care about (2011). Bucolo and Wrigley state that it is no longer the question of “how, what and where”, but “why” particular consumer decisions are made (2012, p. 32). Expanding on this, Weber and Henderson explain that in essence, marketing is still about generating and maintaining customers, however, the ‘how-to’ questions for achieving this have changed significantly (2014). Gilbreath adds to this and insists that persistent dedication to modifying traditional ways of tackling marketing is needed (2009). There is a need for methods that empower the marketer to go beyond what the customer can voluntarily articulate (Price et al., 2015) and “dig more deeply” below “surface-level thinking and behavior” (Zaltman, 2003, p. 75).

2.2.3 Marketing and Tomorrow’s Consumer

Many practitioners in the field have conveyed the notion that to truly learn about the consumer and consequently deliver personalized and meaningful solutions, ‘empathy’ is required (Carlgren et al., 2016; Kurman, 2011; Newman, 2015; Ryan, 2016; Turnali, 2016). “Empathy” was coined by psychologists Theodor Lipps (1903) and Edward Tichener (1909) as a translation of the German word “einfühlung” that means “to project yourself into what you observe” (Llamas, 2015). As best described by Rogers (1989):

It (empathy) is an accurate, empathetic understanding of the user’s world as seen from you. To sense the user’s private world as if it were your own, but without losing the ‘as if’ quality—this is empathy. (p. 226).

Kouprie and Visser stress that it is important to recognize the emotions of the customer and understand their situation from their point of view (2009). Expanding on this, Zambito explains that one cannot successfully communicate or engage with consumers without empathy. One
must strive to know who our customers and buyers are, “what things are important to them, and why what they hope to accomplish is important to them”. He insists that it is necessary for modern marketers to “re-learn and re-think” the notion of engagement in human terms as rather than digital terms (2014). Developing on this, Turnali encourages marketers to “bring empathy to the forefront” of marketing and make it the “focal point of thinking”. He insists that by doing so, marketers will gain the ability to “experience and understand” (2016, p. 1). This ability to acquire a deep understanding of the consumer will unravel new opportunities for organizations to produce market offerings with greater customer value and competitive advantage (Humphreys & Grayson, 2008; Prahalad & Ramaswamy, 2004; Wittel et al., 2011). Marketers should embrace empathy and be inquisitive and curious, and allow their consumers to interact rather than merely react to structured questions and instructions (Price et al., 2015; Kurman, 2011). Wittel et al. explain that, as the customer is a significant factor in the development of products and services, they must not be perceived as a “source of information but as a contributor with knowledge and skills” (2011, p. 143). The modern marketer must become empathetic and intimately engage with the consumer. Developing on this, Wolfe insists that the inclusion of new additional skills, as well as empathy, is required in order to successfully capture insights on today’s rapidly emerging markets, and effectively employ them to generate relevant, targeted, and valuable customer experiences (Wolfe, 2014).

Accordingly, further research reveals that improved problem solving skills are required to keep companies relevant and help them to contend with the changing needs in our environment and changing business dynamics (French et al., 2011; Kolko, 2015; Weber & Henderson 2014). Anderson stresses that in this competitive landscape and age of instant gratification, fresh new solutions are in short supply (Anderson, 2006). Marketers are confronted with diverse and intricate consumer problems and each problem or ‘situation’ essentially requires a different
creative approach (Belch & Belch, 2001). According to Titus, marketing may be envisaged as the process of “offering creative solutions to consumer problems” (Titus, 2000, p. 225). Thus, it is necessary to consider new tools that may assist organizations in effectively developing an intimate understanding of their customers and combines such insights with more creativity and efficiency in innovation processes (Tschimmel, 2012). Changes must be made and novel skills adapted in order to effectively meet consumer demands and survive in today’s marketing industry (Achenbaum, 1987; Chadwick, 2006; Dacko, 2006).

2.3 Design Thinking

2.3.1 Antecedents Of Design Thinking

One of the earliest influencers of the idea of design as a way of thinking was Nobel Prize winner in Economics in 1978, and IJCAI Research Excellence Award winner of 1995 – Herbert Simon – who explored the concept of design and decision-making (Fig. 2). According to Simon, all of design activity should exist to constantly improve our “artificial world” (or artifice) towards a “preferential form” (Cupps, 2014, p. 12).
Simon's decision-making model (Fig. 2) consists of three phases: (i) Intelligence Gathering, (ii) Design, and (iii) Choice. The following explanation of the three phases is based on an account of Simon’s decision making model provided in Riahi-Belkaoui (2001).

(i) Intelligence Gathering
This is the first step of the decision-making process. This phase involves detecting situations in the environment that demand decision, and establishing the existing problem(s). Information is collected and evaluated, and subsequently compared in order to identify the most urgent problem.

(ii) Design
The second step of the decision-making process consists of defining (or ‘inventing’) and analyzing various courses of action for the problem that was identified during the Intelligence Gathering phase. A number of feasible alternatives are developed and an evaluation is
undertaken on the basic of criteria in order to determine the positive and negative aspects of each solution.

(iii) Choice

The third step of the decision-making process involves comparing the possible solutions against one another and selecting the best alternative. The end product of this phase is a decision that can be satisfactorily executed.

These phases, practitioners have argued, show close resemblance to many later Design Thinking frameworks (Roscam-Abbing, 2010). Subsequently, Rittel and Webber added to the basis of Design Thinking by coining the term ‘wicked problems’ – insisting that both designers and planners would constantly be faced with wicked, ill-defined and complex dilemmas that demanded creativity in order to achieve effective solutions (1973). Expanding on this, Buchanan insisted that the use of Design Thinking as an effective means of resolving complex problems could be ideally suited for addressing areas beyond the boundaries specific to design, “activities and organizations…complex systems or environments for living, working, playing, and learning” (1992, p. 10).

2.3.2 Contemporary Design Thinking

Today we are in what technology and market research company Forrester Research calls the ‘Age of the Consumer’ (Ramos, 2015). As previously highlighted in section 2.2.2, companies are aggressively competing against one another to create products and solutions that successfully engage and please the constantly changing needs of today’s consumers. Expanding on this, Price, Wrigley and Straker assert that businesses that seek to engage with customers at an emotive level must be equipped with tools and skills capable of accurately interpreting and articulating emotion into meaning (2015). According to the Hasso-Plattner Institute of Design at
Stanford – also known as The Stanford Design School (d.school) who specialise in teaching and nurturing a design-led mindset, and are popularly known for their Design Thinking programmes and courses (d.school, 2017) – Design Thinking is the best tool for creating those kinds of intimate and meaningful interactions and generating a responsive, flexible organizational culture (d.school, 2017). Design Thinking — “a human-centered innovation process that emphasizes observation, fast learning, visualization of ideas and rapid prototyping” (Hanttu, 2013, p. 23) - has become a new paradigm for dealing with such problems (Mohr, 2015).

The process integrates two degrees of thinking: (i) validity-based thinking – where outcomes that meet the desired objective are pursued, and, (ii) reliability-based thinking – where outcomes that are predictable and consistent are pursued, and with the technique’s user focused, creative and rapid paced strategies, it sets Design Thinking apart from other methods of problem solving (Soule, 2013). Many variants of the Design Thinking process are being used today, and while the number of stages or phases that each are composed of vary, they are all based upon the same similar principles presented in Simon’s model (Dam & Siang, 2018). Fig. 3 presents the stages of a widely used Design Thinking process proposed by d.school.

![Five-stage Design Thinking Process](d.school, 2017)

Figure 3. Five-stage Design Thinking Process (d.school, 2017).
The five stages of the Design Thinking process, according to d.school, guide the user to (i) Empathise, (ii) Define (the problem), (iii) Ideate, (iv) Prototype, and, (v) Test (the solution) when tackling complex problems. The above mentioned, based on an account of d.school’s Design Thinking process (2017), is described in more detail below, with other sources that were used indicated throughout the relevant text.

(i) Empathise

The first stage of d.school’s Five-stage Design Thinking Process requires an empathic approach in understanding the problem that needs to be solved. Empathy is considered as a crucial component of Design Thinking and what defines it as ‘human-centered’ (Llamas, 2015). This stage encourages engagement and the act of immersing yourself physical into the situation in order to gain a deeper personal understanding of the people you are designing for (the user), their needs and any existing issues (Dam & Siang, 2018). Methods such interviewing or ‘Bodystorming’ are suggested as useful tools during this stage.

(ii) Define

The Define stage examines information that has been gathered during the Empathise stage. Observations that stem during this stage are analysed and synthesed in order to define the core problems identified up to this point. A problem statement or POV (point of view) is derived from this and defines the ‘right challenge’ to address based on the new understanding of the user and the problem. Methods such as the “How-Might-We…” brainstorm exercise and the Madlib POV Technique are particularly valuable tools during this stage of the Design Thinking process.

(iii) Ideate

This stage of the Design Thinking process focuses on idea generation. ‘Out-of-the-box thinking’ is encouraged in order to identify new solutions to the problem statement previously created in the Define stage. D.school stress that the aim of this stage is not about “simply finding a single,
best solution” but about pushing for a wide range of possible ideas and going beyond obvious solutions (2017). Sketching, Brainstorming and SCAMPER are some of the recommended tools that aid in stimulating ‘out-of-the-box thinking’ and help in generating unexpected solutions (Dam & Siang, 2018).

(iv) Prototype

A number of solutions created during the Ideate stage of the process can be brought forward and created into low-resolution prototypes – inexpensive, scaled down physical version of the solution. During this stage the prototypes are shared and tested on users. The aim of this experimental phase is to determine the best possible solution that exists and, by observing users’ interactions with the prototypes, an informed perspective of how potential users would “behave, think, and feel when interacting with the end product” is acquired, thus prototypes can be improved and re-examined, or rejected based on the users’ experiences (Dam & Siang, 2018). Prototypes can be shared with users and improved upon multiple times in order to receive more feedback and help to produce a more refined solution – in the form of a product or service – specifically suited to the needs of the user.

(vi) Test

Though the Test stage is the final stage of d.school’s five-stage model, similarly to the Prototype stage, it is an iterative process. A complete and more refined product or service is created based on the feedback and best solutions identified during the Prototyping phase. This complete product or service is tested and additional iterations and refinements are carried out in order to obtain a deeper understanding of the developed solution and its users. This stage is another opportunity to gain empathy for the people you are designing for.

It is important to highlight that each stage of the model acts as enablers or modes of thinking, rather than concrete linear steps. D.school explain that the five-stage process is intended to be
executed in a more “flexible and non-linear fashion” (2017). The stages seen in Fig. 3 do not always have to be sequential – it is not mandatory that the five stages to follow any specific order (Dam & Siang, 2018). For example, feedback gained from the Testing stage may uncover unusual insight about users, which in turn may lead back to the Ideate stage for an additional brainstorming session or the development of a new prototype.

Though the defining words and number of stages of the human centered design process change across the numerous Design Thinking frameworks that exist today, the values of empathy, collaboration, and iteration does not change (Hoffman, 2016). Examples of other popular models of the Design Thinking processes include: (i) What x 4 – a unique framework formulated by Jeanne Liedtka, professor of Business Administration at the Darden School of the University of Virginia, and Tim Ogilvie, founder of innovative consultancy firm Peer Insight (Dam & Siang, 2018), and, (ii) Double Diamond model – a creative process developed by The Design Council of the UK, whom are recognised as a leading authority on the use of strategic design (Design Council, 2018). Fig. 4 represents Liedtka & Ogilvie’s ‘What x 4’ model, which demonstrates a similar journey to d.school’s five-stage Design Thinking Process but with 4 W’s. Thses are:

1. **What is?** (Exploring the current reality)
2. **What if?** (Envisioning Alternative Futures)
3. **What wows?** (Getting users to help us make some tough choices)
4. **What works?** (Making it work in-market, and as a business)
Similarly, the framework proposed in Fig. 5 shows close resemblance in their defining words. Design Council explain that the Double Diamond model is divided into four distinct phases:

1. **Discover** (examine the world in a fresh way, notice new things and gather insights)

2. **Define** (make sense of all the possibilities identified in the Discover phase and develop a clear creative brief that frames the fundamental design challenge)

3. **Develop** (create solutions or concepts, prototyped them, test them)

4. **Delivery** (finalise, produced and launched the resulting solution)
Evidently, the Design Thinking process in any framework remains iterative, flexible and focuses on deep and meaningful user engagement. Empathy is embraced through this, as well as the methods of questioning and discovering, in order to bring effective solutions to life, based on how users think, feel and behave (Waloszek, 2012). Accordingly, Design Thinking is assumed to be a valuable tool required by great modern marketers (Glen, 2015). Liedkta asserts that customer intimacy “with a deep and personal empathy with customers as people rather than as demographic or marketing categories” is hugely significant in the 21st century (2011, p. 13). Dacko however, questions if future marketers are being equipped with the adequate opportunities to obtain the right knowledge and grasp the right skills (Dacko, 2006).

Research reveals that Marketing graduates entering the workforce are portrayed by employers as unprepared and lack the skills required for satisfactory solution forming and problem solving (Bates, 2014; Bennis & O’Toole, 2005; Dyer et al., 2011; Waddock & Lozano, 2013). The
practice of presenting ideas and coming up with new ideas and solutions are not often considered to be a particularly strong point of third-level education (Bates, 2014). Though the world seemingly seeks creativity from marketers (McIntyre, 1993), studies investigating marketing majors and creative thinking found that often when students set out to problem solve they chose the first reasonable solution that is found, thus often do not give themselves the opportunity to push ideas to their full potential. Furthermore, often when solutions do demonstrate characteristics of creativity or innovation, researchers found that these ideas were often “unsupported” by or “disconnected” from the research that the student had gathered (McCorkle, et al., 2007). Marketers can profit from Design Thinking when tackling creative tasks (Goworek et al., 2016). McCorkle, Payan and Reardon assert that creative thinking is relevant to the discipline of marketing and when amalgamated with discipline-based knowledge and additional skills, they can enhance the standard of their ideas and solutions of marketing concerns (2007). Design Thinking and innovative education is essential in addressing the rapidly progressing complex world we live in (Brown, 2009; Martin, 2009) in a way that empowers students to research empathetically and problem-solve effectively.

2.3.3 Design Thinking and Education

Leading economies, innovative industries and firms demand more educated graduates who have the power to respond appropriately to challenging problems, obtain relevant information and communicate it effectively, as well as, work collaboratively to produce new knowledge (Carroll, et al., 2010). According to The Partnership for 21st Century Skills, the central economic competitiveness concern for the Obama administration is to construct an aligned 21st century public education system that equips students, workers and citizens to prosper in the universal skills race (P21.org, 2018). The prioritisation of innovation, creativity, critical thinking, problem solving, communication and collaboration is crucial in preparing students for the future (Luna
Scott, 2015). It is believed that implementing the practice of innovation, creativity, critical thinking, problem solving, communication and collaboration in education settings will contribute to the facilitation of a well-rounded learning domain that can fortify thinking levels (Carroll, et al., 2010). Evidently, the implementation of a process that allows individuals to put factors such as innovative problem solving into practice would be hugely welcomed and highly beneficial in an educational setting. D.school stresses the necessity for teachers to embrace the Design Thinking process and actively employ hands-on design challenges that enhances the development of empathy, encourages the process of ideation, develops metacognitive awareness and fosters active problem solving (d.school, 2017). Accordingly, Design Thinking may support students to become “empowered agents” in their own learning, who possesses both the tools and the confidence to effectively deal with difficult challenges that exist the world we live in (Carroll, et al., 2010).

Moreover, Design Thinking’s emphasis on acquiring a deep understanding of the user would seem to mesh seamlessly with the principles of marketing (Glen et al., 2014). As emphasized in Section 2.2.2, a truly worthy and valuable market offering can only be formulated through the lens of the customer. The consumer, it seems, is still an immensely important factor as the world undergoes constant change (Lemon, 2016). However, marketers are often recognized as unimaginative and unable to truly meet consumer needs (Goworek et al., 2016). While it is evident that Marketers can benefit from Design Thinking, studies reveal that early marketing educators are less inclined to adapt or take on the teachings of Design Thinking and traditional marketing methods are preferred (Ferrell et al., 2015). As it is suggested that many marketing educators do not agree with or have the ability to teach the process of Design Thinking, it would not be practical to re-educate them. Nonetheless, as Design Thinking provides modern marketers with an ideal route for constant generating and launching of innovative solutions to brand
building, product development and customer experience challenges (Mohr, 2015), it is necessary to equip young marketers with the skill.

Research strongly asserts that it is essential for educational institutions at all levels to become more reactive to societal transitions and offer educational services that can make the contributions necessary to support our society of innovative graduates (Ananiadou & Claro, 2009, Kereluik et al., 2013; Laguardia & Pearl, 2009; Norris et. al, 2012; Rutkowski et al., 2011; Yan Yan, 2010). Evidently, it is crucial to develop opportunities for innovation to transpire within the field of education (Bellanca, 2010; Christensen et al., 2008; Finn & Horn, 2013; McCharen, Song, & Martens, 2011; Schlechty, 2009). Learning demands skills that are tied to creativity. Approaching the matter of creative problem solving and implementing it in the classroom will aid in facilitating a well-rounded learning environment that can strengthen thinking levels and allow the youth to survive in this competitive and fast paced world (Carroll et al., 2010).

2.4 Research Question

As addressed through the research of this chapter, the process of Design Thinking and its relationship with wicked, ill-defined and complex dilemmas that demand creativity has been around for quite some time. Though it was once a tool specifically confined to designers, recently the Design Thinking methodology and its principles are being applied to areas beyond the boundaries specific to design (Buchanan, 1992). With the tremendous growth in technology, the world we now live in has developed into a fiercely competitive and borderless world where customers have the ability to easily access products and services from everywhere, and their demand for value and quality have “grown apace” (Keillor, 2007). Consequently, Design Thinking — a human-centered innovation process that embraces empathy (Hanttu, 2013, p. 23) -
has become a new paradigm for dealing with such problems (Mohr, 2015). It is said to serve as a particularly valuable tool that empowers marketers to acquire a deep understanding of the consumer and as a result, produce market offerings with greater customer value and competitive advantage. Compared to the traditional “purely data-driven approach” that marketers often use for consumer research, the Design Thinking process is believed to offer a more successful outcome (Kurman, 2011). Research reveals that Design Thinking allows the marketer to effectively utilize and apply specific information that they learn, to what they offer consumers. It empowers the marketer to go beyond what the customer can voluntarily articulate (Zaltman, 2003).

Furthermore, research reveals that marketers can profit from Design Thinking when approaching creative tasks, as well as complex challenges (Goworek et al., 2016). Cooper adds that this method inspires new thinking and develops breakthrough ideas (Cooper, 2012). It is necessary to equip Marketers with a tool that empowers them to research empathetically and problem-solve creatively and effectively. However, while there is growing scholarly interest in the intersection between Design Thinking and the modern marketer, little academic attention has been devoted to its application to the Marketing education environment. Tschimmel asserts the notion that perhaps there is a necessity to consider new tools that may assist young marketers in effectively developing an intimate understanding of their customers and combines such insights with more creativity and efficiency in innovation processes (Tschimmel, 2012). Thus, the research question that I will address in this study looks to determine:

“What potential can Design Thinking offer marketing students in meeting workplace learning and performance challenges?”
2.5 Summary

Through this research, a number of concerns were established with regard to the modern marketer and their ability to appropriately adapt to the constant and rapid changes in our environment (Hanttu, 2013). Despite the apparent lack of research into Design Thinking and its application in the Marketing third-level setting, the importance of the Design Thinking methodology as a valuable tool to Marketeers cannot be denied.

The following chapter describes the research methods that were used in the study and provides details on the developed Design Thinking toolkit that was specifically formed to address the research question.
Chapter 3: Research Methods

3.1 Overview

A number of concerns emerged from the literature review in Chapter Two, including but not limited to, (i) the dramatically thriving and complex consumer world we live in; (ii) the 21st century marketer’s ability to appropriately adjust to this complex environment; (iii) the benefits Design Thinking could contribute to the management of such wicked, ill-defined and complex dilemmas that exist in the Marketing industry today; and, (iv) the lack of efforts in applying Design Thinking – a tool supposedly needed by marketing students to push thinking and consider the consumer deeply – to third-level Marketing education settings. When aiming to determine the extent in which Design Thinking could potentially offer graduates, research has mainly been focused on business education environments, leaving a gap where empirical research of Design Thinking specific to the marketing student is needed.

The research methods in this study were specifically chosen to allow me the opportunity to engage with my participants on a deeper level in order to discover their unarticulated issues and needs, and eventually determine what Design Thinking could potentially offer them in the context of learning and performance difficulties they may be experiencing in the Marketing environment. This study required the design of a number of low fidelity prototypes and one complete and more refined developed product that spurred from the feedback and best solutions identified from the created low fidelity prototypes.

The following sections detail the research methodology and designed material that was developed to address the research question based on the theoretical background outlined in Chapter Two. Thus, section 3.2 describes the research design that was used in this study. Data
gathering methods and data analysis methods are detailed in section 3.2.1 and 3.2.2, which is then followed by a detailed description of the developed and tested final complete and more refined developed solution – the Design Thinking Toolkit – offered in section 3.2.3. The participants of whom the Design Thinking Toolkit was tested on are also discussed in this section, as well as the ethical issues that were addressed during the study (section 3.3) and finally, the limitations of the study are outlined in section 3.4.

3.2 Research Design

The research design was itself based on the principles of Design Thinking and applies the iterative, cyclical and human-centered nature of the process. As highlighted in section 2.3.2, a crucial component of human-centered design is empathy, thus the methods of this study predominantly involved engagement, interaction and observation. Such practices were used specifically with the aim to gain an understanding of the marketing students’ physical and emotional needs, the way they do things and why, and what is meaningful to them (d.school, 2017).

Fig. 6 depicts the steps that were taken in order to resolve the research question: “What potential can Design Thinking offer Marketing students in meeting workplace learning and performance challenges?”
The following sections of this chapter offer a detailed account of the methods outlined in Fig. 6.

3.2.1 Data Gathering Methods

It should be noted that audio recordings were taken during each data gathering method and video recording occurred only in the final phase where the testing and observing of the Design Thinking Toolkit took place. Before any video and voice recording of the study occurred, consent (Appendix C & Appendix F) was obtained from participants in a manner that was informed and voluntary. As the study was largely qualitative and relied on frequent engagement
and interactions with the target market that the study set out to examine, methodological triangulation was employed in an effort to reduce bias and ensure that the combination of data gathering methods, including performance tests and focus groups, would aid in maximizing validity rather than guaranteeing complete validity (Cohen et al., 2007) – it was anticipated that any findings from one method would increase confidence in the findings in any cases where data agreed across two or more methods (Denzin, 2017). The following methods were utilized as a means of gathering data for this study.

3.2.1.1 Interview

Chapter Two highlighted the challenges and issues that are faced by Marketers in this age of ‘digital disruption’. In addition, the concerns regarding Marketing graduates’ inability to think creatively and problem solve effectively emerged. Thus the interviews gently challenged these insights expressed in the literature of Chapter Two and sought to understand the thoughts, emotions, and motivations behind the people that these verdicts described. Interviews were semi-structured and deliberately non-directive as to encourage insightful stories and personal opinions from the interviewees to emerge. This process allowed for problems, opportunities and ideas, which may not have otherwise occurred or come to mind initially, to arise. This method focused on individuals from three specific categories. These were: (i) Marketing Industry Professionals (ii) Marketing Department Lecturers (iii) Marketing Department Students. Fig. 7 presents the number individuals that participated from each specific category. In total four Marketing industry professionals, four Marketing department lecturers and eight Marketing department students were interviewed.
In order to inform my research question, particularly focused in the context of learning and performance challenges, interviews conducted with Marketing industry professionals and Marketing department lecturers were focused on gaining an understanding on the interviewees' views around the topics of, but not limited to, (i) creative and solution-orientated thinking, (ii) potential requirements of young marketers entering the workforce, and, (iii) challenges in the Marketing industry today. Interviews conducted with Marketing department students were intended to attain deeper knowledge on the interviewees' views around the topics of, but not limited to, (i) creative and solution-orientated thinking and, (ii) the Marketing curriculum. The average duration of each interview was thirty minutes, and all interviews were audio-recorded and transcribed. Interviews with Marketing industry professionals and Marketing department lecturers were mainly face-to-face. In order to address validity and reliability threats arising out of a geographically or institutionally homogeneous sample, additional interviews were conducted via Skype as a means of reaching participants outside of the Cork and Kerry area. As student participants consisted of those who attended CIT, interviews were face-to-face. The results of these interviews are outlined in the findings in Chapter Four.

3.2.1.2 Five Whys Approach

An adaptation of The Five Whys Approach, was executed with the involvement of two previously interviewed students, subsequent to the interviewing process. The Five Whys approach, developed in the 1930s by Sakichi Toyoda, inventor and one of the fathers of the

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<th>Number of participants</th>
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Japanese industrial revolution, strives to uncover the fundamental motivations of beliefs or behaviours which may not initially have been discovered during standard data gathering methods such as interviewing (Card, 2017). It does this by simply encouraging researchers to ask ‘why’. The encouragement of asking ‘why’ is potently emphasized during numerous stages of the Design Thinking process as a means of “digging deeper” in order to uncover meaningful insights (d.school, 2017).

The Five Whys Approach was carried out in the Training Room of the Technology Enhanced Learning Department, CIT. The participants were introduced to the method and instructed on how to apply it. They were then given a defined problem, which had emerged from interesting information that was gathered through previously conducted interviews outlined in section 3.2.1.1, to investigate. With the aid of markers, sticky notes and a large wall, participants worked together to re-examine and reconsider the defined problem. Participants were encouraged to base reflections and responses to the ‘whys’ on their own personal experiences with the specific problem.

It should be noted that initially six participants in total volunteered to participate. However, only two participated in the session. This was due to class timetable clashes and, also due to my own restricted time available to complete certain stages of my research. Whilst this small sample size is considered as a study limitation, receiving an opportunity to further discuss interesting insights that emerged from the interviews helped me to form a better understanding of Marketing students’ thoughts and behaviours. This was particularly valuable as it was from the students’ perspectives themselves.
3.2.1.3 Ideate and Prototype

The ideation process involved content analyses to identify possible interactive and stimulating ways in which the Marketing students could engage with the Design Thinking process with the intention to consequently examine how the Design Thinking principles would impact the way a student worked. This involved increasing my knowledge of what existed in this field through examining past and current online and offline materials regarding Design Thinking guides, games and activities. Consequently, an idea emerged inspired by a ‘crash course’ on Design Thinking offered by d.school (later discussed in section 3.2.3).

The process of sketching and visualizing then followed in order to explore ways in which the crash course could be adapted to the Marketing student. Sketching and visualizing are described as key to the construction of an idea (Schön, 1983), thus making an idea tangible (Cross, 1990; Lawson, 2006; Michlewski, 2008; Cross, 2009). Consequently, a strategy was established and the first low fidelity paper prototype was created. The prototype involved a challenge and a number of steps, which guided the users through the Design Thinking process in order to complete the challenge. Its purpose was to allow the user to gain an understanding of the Design Thinking methodology. It was tested on two individuals, who worked as a team to complete the given challenge. The individuals were observed as they tested the prototype and an informal discussion was then carried out after the testing with the purpose of seeking honest criticism on how the users felt the steps impacted the way they worked and thought. After feedback was gathered from the initial prototype, this prototype was then developed into a low fidelity ‘on screen’ prototype. Using the Adobe Muse program, a mock up of the prototype was created with necessary adjustments based on the feedback of the participating individuals. As seen previously in Fig. 6, this process of testing the prototyping was repeated as part of an iterative, cyclical process. Five rounds of prototypes were developed and tested. The time provided for each
prototype testing was thirty minutes in total, with an additional ten-minute informal discussion. This iterative step helped me in my progression to the next phase of my research where the final developed solution – the Design Thinking Toolkit – was produced and tested. To avoid confusion that may arise throughout this thesis, Appendix A was created to demonstrate and distinguish the prototypes (which occurred during the Ideation and Prototype phase) from the Design Thinking Toolkit (which occurred in the Test and Observation phase discussed further in section 3.2.3).

3.2.1.4 Rating Scale

In order to validate or invalidate observations made during the test and observation phase, a rating scale (Appendix B) was created and distributed to the participants immediately after they tested the Design Thinking Toolkit. A set of questions was composed based on findings discovered through the previous stages of my research and presented to students in a way where they had the specified option choices under the headings of (i) ‘strongly agree’, (ii) ‘agree’, (iii) ‘disagree’ or, (iv) ‘strongly disagree’ to best describe their answer to each particular question. The rating scale aided in clarifying and supporting some of the observations that were made during the Design Thinking Toolkit testing.

3.2.1.5 Focus Group

Following the completion of the Rating Scale, a short, informal discussion took place with the participants. Discussions were semi-structured, allowing the participants to lead the conversation. This was particularly useful with regard to further investigating the observations I noted, and provided an opportunity for the emergence of new and unexpected insights. Personal and group feelings, perceptions and opinions were gathered and participants responded to each
other’s input – ‘feeding off’ one another – providing support or disagreeing with one another thus producing more energy and therefore more data. It was another means of developing empathy. This particular process was allocated a fifteen to twenty minute time slot and took place around a large table in the same room in which the Design Thinking Toolkit testing and observation took place.

3.2.2 Data Analysis Methods

3.2.2.1 Qualitative Data Analysis

In order to analyse and interpret this data gathered from the interviews, a systematic approach, which involved two levels of coding, was applied. This method enabled me to establish possible relationships amongst my collected information, refine and identify themes and repetitive patterns within my findings, and ultimately aided in the development of a clear and refined theory that enabled a better understanding of my participants and their relationship with creative and solution-orientated thinking. Consequently, two broader themes that reinforced the emerging first order codes were established.

3.2.2.2 Feedback Capture Grid

In order to break down and capture my users’ feedback about my prototypes, I applied a systematic technique known as the Feedback Capture Grid (Fig. 8). This enabled me to easily digest and fully comprehend the collected reactions and criticisms gathered from the informal feedback discussions. The Feedback Capture Grid suggests four categories in which the data should be broken down under: (i) ‘Likes’, (ii) ‘Constructive Criticism’, (iii) ‘Confusion (participants may have experienced)’ and, (iv) ‘Suggestions (participants may have that could improve the prototype)’. Each prototype was analysed with the use of this technique.
Discoveries made through The Feedback Capture Grid contributed to alterations, which bettered the final developed solution – the Design Thinking Toolkit – as areas of confusion and difficulties were clarified, and suggestions by the participating students themselves were noted and acted upon.

![Feedback Capture Grid](image)

Figure 8. Feedback Capture Grid (d.school, 2017)

### 3.2.2.3 Empathy Mapping

This technique was used to aid in the analysis of information gathered from the informal discussions, which took place after each prototype test and also, the focus group session carried out immediately after the Design Thinking Toolkit testing. The Empathy Map assisted me in carefully extracting and arranging my data into four quadrants that represented four key traits. These four quadrants, as seen in Fig. 9, refer to what the user:

(i) **Said:** any interesting quotes and defining words noticed during the observation.

(ii) **Did:** any information on the participants actions and distinctive behaviours.

(iii) **Thought:** any thoughts and beliefs the user may have asserted during the observation.

(iv) **Felt:** any feelings and emotions which could be observed from the participants.
This process of breaking the data down allowed me to deal with more manageable pieces of information, thus aided in drawing out any interesting and unusual insights that could contribute to my research question.

3.2.2.4 **POV Madlib Technique**

This final technique guided me through the process of distilling a variety of needs and insights – pulled from data that was gathered and analyzed through all research methods utilized in this study – into a point of view or user problem statement. The POV Madlib Technique offers a specific set of steps which enabled me to (i) distinguish distinctive emerging traits that defined the type of person whom the study was examining – the Marketing student; (ii) determine the Marketing students’ most essential needs, the needs which appear to be most important to fulfill; and (iii) extract interesting insights that emerged from the study. These steps, consequently aided in the development of a number of statements which best captured and harmonized the three elements previously mentioned: (i) user, (ii) need, and, (iii) insight. These statements,
considered as problem statements, allowed me to develop a clearer perception of the Marketing student and who they are as individuals in the Marketing education environment, with the aim of trying to understand the learning and performance challenges that they face, and accordingly identify if Design Thinking can truly accommodate those needs.

The following section is gives detail of the final developed solution – the Design Thinking Toolkit that was developed for the study in order to address the research question.

### 3.2.3 The Design Thinking Toolkit

#### 3.2.3.1 Overview

As revealed in Chapter Two, the practice of presenting ideas and coming up with new ideas and solutions are not often considered to be a particularly strong point of third-level Marketing students (Bates, 2014). Studies investigating marketing majors and creative thinking found that often when students set out to problem solve they chose the first reasonable solution that is found, thus often do not give themselves the opportunity to push ideas to their full potential. Furthermore, often when solutions do demonstrate characteristics of creativity or innovation, researchers found that these ideas were often unsupported by or disconnected from the research that the student had gathered (McCorkle, et al., 2007).

In addition to the ability to generate effective solutions that address large-scale challenges, marketers need to identify what really motivates the consumer and dig deeper (Carlgren et al., 2016). Acquiring a deep understanding of the consumer will unravel new opportunities for organizations to produce market offerings with greater customer value and competitive advantage. Research informs us that competitive success today is strongly influenced by one’s
capability of truly understanding “human needs and desires”, and power to formulate rich and meaningful solutions that address such influences (Diamond & Vredenburg, 2016; Patino et al., 2012; Valle, 2013). By developing a means in which Marketing students could practice the Design Thinking methodology in the classroom, one could observe how the principles of Design Thinking impacted the way in which students worked toward solving a challenge in a way that embraced creative thinking and empathy. Design Thinking and innovative education is significant in addressing the rapidly progressing complex world we live in (Brown, 2009; Martin, 2009, Wager, 2012), in a way that empowers students to research empathetically and problem-solve effectively.

As mentioned in section 3.2.1.3, the iterative process of prototyping enabled me to understand my target market’s physical and emotional needs, as well as, their thoughts and motivations in regard to creative and solution-orientated thinking, thus facilitated immensely in the improvement and development of an eventual meaningful solution suited specifically to them based on results gathered from these prototypes. This eventual solution was the development of a Design Thinking Toolkit. The following sections describe the Design Thinking Toolkit and the test and observation process that was undertaken in order to gather additional valuable information, which contributed significantly toward addressing the research question of this study.

3.2.3.2 The Toolkit

As noted in Chapter Two, though numerous studies indicate how the principles of the Design Thinking process could adequately equip the modern marketer with the right tools for tackling challenges they may face in this rapidly progressing world, there is an evident lack of research conducted in the area of Design Thinking and the Marketing student. Thus, this toolkit was
developed with an aim to examine how the Design Thinking methodology impacted the way in which Marketing students dealt with a challenge, which required creative and solution-orientated thinking.

D.school’s crash course – which is offered through the form of an instructional video accessible online on their institute website – requires its users to work in pairs towards completing a specific challenge – to redesign the user’s (their work partner’s) ‘gift-giving experience’. The goal of this challenge is to create something useful and meaningful to their work partner – in the form of a product or service that predominantly focuses on their partner and their partner’s needs – with the purpose of improving their work partner’s future experiences when thinking/making/buying and/or wrapping a gift for a loved one or colleague. The crash course helps users to gain a better understanding of the Design Thinking methodology through the completion of this challenge with the help of ten instructional steps that embrace empathy, idea generation and solution forming. Each step of the course informs the user of its purpose and provides prompts and useful examples of how to apply the specific step. Strict timeframes are given to complete each step and users are continuously prompted to communicate with one another and ask ‘why’. As users are quickly guided through each step of the course, they become familiar with the principles of Design Thinking. Appendix D provides a glimpse of d.school’s Virtual Crash Course’s playbook, which is provided for those who wish to facilitate a Design Thinking workshop themselves, and a page from the accompanying worksheet, which is used with the course video, can be seen in Appendix E. The course steps allow the application of the Design Thinking methodology towards any problem in any field (d.school, S. (2017). D.school’s ‘Virtual Crash Course in Design Thinking’, was specifically redesigned and adapted with my research question in mind.
Using d.school’s Crash Course’s playbook as a guide, along with the information gathered from previous research methods used in this study, a Design Thinking Toolkit was developed. The Toolkit similarly shared the same ‘ultimate challenge’ as d.school and guided the user through the Design Thinking steps used by the institute. While the Virtual Crash Course required ninety minutes to complete the whole challenge, the time required for the Toolkit was reduced to sixty minutes. As student participation had been difficult in the past, it was anticipated that ninety minutes would have been a huge time commitment for students to donate to the testing of the Toolkit alone, as time for the rating scale survey and focus group also needed to be taken into consideration. In addition, participation fatigue was a concern. Participation fatigue occurs when participants become tired, in this case of the testing due to its duration. Thus this results in a high probability that the quality of the information provided by the participants begins to deteriorate as their attention and motivation drop toward later stages of the test. Thus, with the above being considered, the re-evaluation of the feedback gathered from my prototypes was necessary to aid in identifying the areas in which students struggled or required longer time allowances for certain activities, and carefully reconsider the possibly ‘excessive’ time allowed for other activities in each step, in order to appropriately reduce the overall duration of the toolkit.

Furthermore, based on the research gathered from my student interviews, a number of assumptions were made prior to the development of the Toolkit with regard to its perceived effect on the students’ enjoyment. As an emphasis on the students’ particular appreciation toward ‘learning by doing’ emerged in the interviews, it was assumed that an interactive, computer-based format, with reduced, purposely chosen content would make for a better user experience. The Design Thinking Toolkit was developed on Adobe Flash and became an engaging and somewhat visually appealing on screen process, which featured a brief warm up, challenge and guiding steps. Helpful tips and an integrated timer were also included to accompany each guided step (Fig. 10).
3.2.3.3 Participants

As finding Marketing students to participate in such a time consuming study proved to be quite difficult, participants for the testing and observation of the Toolkit were obtained with the help of a Marketing Department Year Coordinator who reached out to Marketing students verbally and via email. Subsequently, ten third-year, level 8 Marketing students from CIT were gathered.
They were a relatively homogeneous group ranging between the age of twenty to twenty-three and of the same racial background – Irish. The group consisted of six females and four males. Though testing the Toolkit on a homogeneous group could be considered as a bias or limitation, the homogeneity arguably gave a clearer idea of the experience and effects of using the toolkit, as there were no other confounding variables that had to be controlled.

3.2.3.4 Toolkit Test and Observation

The Design Thinking Toolkit test and observation took place in CIT and the facilities in the institute allowed for the Toolkit to be exercised at desks in a large classroom. Prior to the arrival of my participants, these desks were grouped together to create five separate ‘work areas’ with ample workspace for any activities, which followed. The interactive Design Thinking Toolkit was set up on five laptops, with one placed at each work area. In addition, two cameras were set up in each corner of the room, with the attempt of being unobtrusive. The purpose of the video recording of the testing was strictly for research purposes and was used only when a review of the test was needed, as a way to re-examine the students’ behaviour and dialogue, to aid with the analyses of the study.

Once all my participants arrived, I introduced myself to the group and explained my research study, thanking the participants for taking part. Participants were then given two copies of a consent form (Appendix F), both to be signed by them for full approval, with one obtained for my records and the other to be kept as their own. Before any video and voice recording of the study took place, consent was obtained from participants in a manner that was informed and voluntary. As participants were aware that they would be working in pairs, each pair was established prior to the beginning of the testing. The following outlines the structure of the study of the Design Toolkit test.
As a means of getting the paired participants energized and engaged, the toolkit test began with a light two minute warm up exercise (Fig. 11). This involved each participant to working together towards building a simple paper airplane with just one hand. The paper airplane had to be able to travel steadily across the room when thrown. As the pairs completed their warm up, they then proceeded to move on to begin their Design Thinking challenge (Fig. 12). At this point the toolkit designated each individual to the titles of either ‘Partner A’ or ‘Partner B’. This helped to inform the team members of the specific instructions they had to undertake during each step (Fig. 13). At this stage, the toolkit also introduced the participants of the function of the built in timer, which would alert them when their time was up during each step.

Figure 11. The Design Toolkit screen grab: Warm up
Figure 12. The Design Toolkit screen grab: The Brief
The steps in which the participants undertook are as follows:

1. Interview – to gain empathy.
2. Reflection – taking the time to write and reflect on data gathered from interview.
4. Define – to identify their work partner’s specific need through a problem statement based on deeper insights discovered so far.
5. Sketch – to generate solutions, through sketching, that will meet their work partner’s specific need.

6. Feedback – taking turns to share their solutions and exchange feedback.

7. Reflect – to reflect on feedback and generating new improved solutions.

8. Build – to prototype the solution.

9. Share – to allow your work partner to examine and interact with the solution.

10. Feedback – taking turns to share their solutions and exchange feedback.

Materials to be used for the ‘building’ step of the process were provided. These were purposely limited and basic, to examine how they dealt with limited resources. Materials consisted of scraps of paper, card, empty boxes, lollipop sticks, glue, scissors etc. The testing of this Toolkit was allocated a one-hour time slot in the study schedule. During this time, I observed the participants in a ‘non-intrusive’ way, allowing them to engage with each other and the Toolkit with as little help from me as possible. I sat passively in the opposite corner of the room to where the video cameras were placed and noted my observations as accurately as possible.

On completing the challenge, students were asked to fill in a Rating Scale Survey (previously discussed in section 3.2.1.4). This helped to contextualize some of the observations that were made during the Design Thinking Toolkit testing.

3.3 Ethical Issues

The proposed research directly involved participants over the age of eighteen. Such subjects were mainly required for research methods such as interviews, discussion, observations, and testing. In order to ensure compliance with CIT ethics guidelines, interviews and observations only proceeded if informed consent was obtained from participants. I ensured that all those
involved were instructed on the basis of my study – what exactly the interview, discussion, testing, observation would entail – and what was required of them. Participants were made aware that involvement was completely voluntary and that they had the right to withdraw from my research at any stage. Furthermore, they were assured that their need to withdraw would not cause prejudice or negative repercussion, and that non-participation would not affect their rights. In addition, the confidentiality and anonymity of my research respondents was respected.

3.4 Limitations

Limitations should be noted. Firstly, while I did include a quantitative tool in my research (The Rating Scale), the study is largely qualitative, thus it would not be valid to generalise findings to wider populations. Secondly, keeping with the qualitative research style that strives to understand the experiences and behaviours of participants, the sample sizes used for the study is consequently quite small. Furthermore, as mentioned previously, the sample group were relatively homogeneous. Thirdly, to generalize the results, the sample size would not only have had to have been much larger but would also have needed to include participants of different backgrounds, ages or different year groups.

Fourthly, another operational difficulty which relates to the small sample sizes in my study refers to the difficulty in the enrollment of participants. This in turn raised reliability issues. As third-level education students live exceptionally busy lifestyles, opportunities to engage with them occasionally proved to be challenging due to time restrictions. A much longer timeframe to complete the study is a factor to be considered for future research.

Fifthly, observation of the testing may have affected the behaviour of the participant that involved in it, and thus what is observed, raising the concern of reactivity. If the participants
changed their behavior due to my presence during the observation, their behavior may no longer be representative of their normal behavior. This is considered as another limitation to my study.

Sixthly, a final limitation relates to reflexivity. In regard to my own background, as well as having a degree in Graphic Design, I have a personal interest in creative and solution-orientated thinking which influenced the focus of my study and in addition the way in which it was implemented. Moreover, though it was not specifically associated with Design Thinking, research carried out for my primary degree similarly involved an investigation into creative and solution-orientated thinking and the Marketing student. This thesis can be somewhat viewed as an expansion of that research, thus this background could propose bias towards the potential of Design Thinking for Marketing students.

3.5 Summary

This study addresses the research question: What potential can Design Thinking offer marketing students in meeting workplace learning and performance challenges? While Chapter Two highlighted the common challenges that Marketing industry professionals often encounter when dealing with complex problems of the 21st century that require creative and solution-orientated thinking coupled with deep and meaningful consumer insight, it revealed the value of Design Thinking as a strategic process that could address such challenges and aid them in producing solutions with greater customer value and competitive advantage. Though practitioners in the field assert that Design Thinking and innovative education is essential to addressing the rapidly progressing complex world we live in (Brown, 2009; Martin, 2009; Wager, 2012) in a way that empowers students to research empathetically and problem-solve effectively, there is a particular gap in the research regarding applications of Design Thinking specifically in Marketing education settings.
This chapter sought to address the research question by firstly trying to identify and understand the underlying difficulties that the Marketing students face in the context of learning and performance challenges, and then accordingly identifying if the Design Thinking methodology can truly accommodate those needs. A number of data gathering methods and sources were adopted in support of this investigation. Data collected from these methods became the main source for the analysis phase and the findings both of which are described in some detail in the chapter that follows. The study findings are presented in two stages, analyses and syntheses.
Chapter 4: Findings

4.1 Overview

This study saw data being gathered in a way that predominantly involved engagement, interaction and observation. In order to transform my discoveries into compelling insights and address my research question, the collected data from methods discussed in Chapter Three was unpacked, analysed and synthesized. Thus, this chapter is divided into two sections. The first – Analysis – describes how each method aided in breaking down the collected information into more manageable and more comprehensible pieces. A number of sequences and codes are detected through this analysis, which consequently contributes to the second part of Chapter Four – Synthesis.

Synthesis entailed creatively combining my analysis and research pieces together in an attempt to forge associations between seemingly unrelated matters with an aim to form ‘whole ideas’ (Brown, 2018). This part of Chapter Four, re-examined and reconstructed my data analysis in order to try to understand the challenges that the main individuals of my study face in the context of learning and performance challenges, and accordingly identify if Design Thinking can truly accommodate those needs.

A large focus on the voice of the participant is illustrated in order to present the findings as accurately as possible. Necessarily, participant names were randomly sequenced and given pseudonyms based on the ascending letters of the alphabet, for instance, participant three was assigned the letter “C” and the name “Colin”. Furthermore, first phase codes are highlighted throughout this chapter with the use of italics and second phase codes are highlighted throughout the chapter with the use of uppercase letters.
4.2 Analysis

4.2.1 Qualitative Data Analysis

4.2.1.1 First Order Coding

The highest frequency codes that were produced in the initial phase of coding, that is the codes that emerged over three times for each interviewed group are outlined below. It should be noted that some of these codes might appear somewhat dissimilar in text due to the format of a specific sentence in the representation of the findings, for example, the need for idea generation could be referenced as ideas that were generated; or time limitations could be referenced as limited time.

After the first collaborative coding session, thirty-six first order codes emerged. In the second collaborative coding session, further in-depth analysis ensued, and after reviewing the initial list of codes, only the most frequent were discussed throughout this section. Their relationships, connections and similarities and differences, were then examined to form two major coding categories.

As detailed in Chapter Three, interviews were semi-structured and were conducted on individuals from three specific categories. These were:

(i) Marketing Industry Professionals
(ii) Marketing Department Lecturers
(iii) Marketing Department Students

The findings from this qualitative data gathering method are summarized in the following pages.
(i) The Marketing Industry Professionals

There was a high frequency of industry professionals describing the need for creativity as something immensely necessary in this era of “new technology” (Adam). Notable, when the topic of creativity arose, it was often followed by the mention of the words “fresh ideas” or “new ideas”. Industry professionals spoke enthusiastically about their implication of creativity in projects undertaken by their own organisations. It was evident that imagination and “new lines of thinking” were considered as valuable and highly appreciated by Marketing industry professionals.

A high frequency of the need to engage with the consumer was apparent also. Marketing industry professionals that were interviewed emphasized their strong belief that the 21st Century marketer needs to have an understanding of the consumer. They need to “connect with the consumer on a deeper level” (Adam). An “emotional trigger” needs to be found (Amy). Bridget explains, “Listening and hearing are NOT the same thing”. Engagement with the consumer “is a must”.

(ii) Marketing Department Lecturers

Similarly, Marketing lecturers identified creativity as a “hugely important” necessity for all marketers to have. It was brought to my attention that creativity is encouraged in marketing modules by the lecturers, and a number of modules offer marks toward creativity. However, lecturers expressed their concern that creativity is still a difficult thing for a Marketing student to grasp as Brian explains, “they [the marketing student] have the misfortune of being stuck in the mind-set of how the second-level education system has left them”. However, it is asserted that creativity is “how a company is going to stand out” (Elaine). Frank adds, “It’s how a student is going to become more attractive to an employer… this, and being open to change”.
The ability to think differently and look at things from a different perspective was frequently described as another important requirement of today’s marketer. The lecturer interviewees express that the Marketing student needs to be capable of producing innovative and relevant solutions when faced with “difficult [marketing] situations” (Elaine).

The consumer emerged during discussions also. Marketers need to “try to actually engage with the consumer and build customer loyalty” (Frank). Brian highlights that the “modern marketer…needs to have the desire to understand the consumer.”. He explains, “The real marketer talks to the consumer, walks with the consumer, observes the consumer”. He adds however, “graduates don’t want to do this I don’t think”. Catherine insists “actually connecting with the customer is a challenge for marketers”.

Markedly, the “ability to work in real-time” and design, frequently emerged during both Marketing lecturers and Marketing Industry Professionals interviews.

(iii) Marketing Department Students

Many students expressed that creativity was an appealing factor in module projects and feelings of satisfaction and enjoyment often stemmed from it. Signs of passion and excitement were detected as they spoke about creative ideas that they were applying to a particular project, “the more creative the better to be honest” (George).

Interestingly, a high frequency of contrasting emotions such as frustration and strain were also detected, when the topic of creativity was discussed. Students admitted that they sometimes encountered difficulties with the process and application of creativity, in the context of idea generation, “it’s kind of annoying because it takes me so long” (Hannah). Sentences including
“Where am I going to start?” (Gemma), “It takes me awhile” (Harry), and “I need more practice” (Ian), indicate the students struggle with the creative thinking process. Students also asserted that they do not know of any particular methods or processes that could be used to help guide them through in ‘thinking outside the box’, other than the common brainstorm method which most found “boring” or unsuccessful. Fiona adds that when it comes to applying creativity, “bringing the idea to life is a lot more difficult”. She explains, “it’s easier to think of it than to do it. Sometimes it doesn’t work out as I thought it would”.

In contrast to the other two interview group categories, there was a low frequency of the students expressing their awareness of the importance of consumer research. Though when it briefly came up, factors such as time limitations and lack of resources were mentioned as factors that influenced the lack of consumer research. “We have six modules, we don’t have the time”(George). Furthermore, engaging directly with the consumer was not a common desire to gain consumer information, “because online you have everything”, Gemma adds “you can do it at home, in your bed and get all your information just there”. George explains, “People just don’t want to respond to you. People have more interest in their phones” as opposed to talking to “strangers who want information from them” (George).

4.2.1.2 Second Order Coding:
Following the analysis of the first phase of codes, a second series of coding was undertaken in order to reinforce these findings and to highlight some broader themes. This process lead to the establishment of two larger code categories. These categories generally absorbed or helped to clarify some of the first phase codes and allowed for the findings to be carried forward to discussions and ultimately address the research question. Similarly to the first series of coding, this second phase was also cyclical but was predominantly achieved by means of pattern, as well
as clustering of the initial established codes. The broad themes that emerged through the second phase of coding are (i) CHALLENGES and (ii) SKILLS.

(i) CHALLENGES

The most prominent theme to transpire from the above findings is CHALLENGES. As the intention of this study was to establish the contribution Design Thinking could offer in the context of learning and performance challenges, the emergence of CHALLENGES was of immense interest. The first stage of analysis allowed for a pattern to become apparent within the data presenting several codes related to different aspects of CHALLENGES, all of which were clustered to form this theme. The high frequency codes from the first phase that fell into this theme include, but are not limited to, difficulties, frustration, strain, change, new technology. This theme can be broken down to form two sub categories. One referring to the challenges in the workplace, and the second regarding challenges faced by the Marketing student.

Industry challenges

In this era of “new technology”, marketers have been forced to rapidly adapt to change and the challenges that come with it. On observing society today, Elaine highlights “there is so much change”. Commenting on change, Catherine insists that the Internet has changed the industry, and today “the internet is a massive consumer service tool”. Due to the immense impact of the internet, consumers are said to be “well-informed”. Frank adds that a marketer must thoroughly examine the technologies that the consumer is using also and try to connect with them through “digital media”, as a means of getting the consumer engaged. Elaine explains, however, that though the internet is an opportunity, it also has threats. She stresses that it is necessary for the modern marketer to know how to communicate, solve issues and also deal with difficult
situations that may emerge from internet threats. An example of these threats was negative comments.

Developing on the topic of the consumer, Adam insists that today “you must try to connect with the consumer on a deeper level”. Adding to this, Frank asserts that it’s major challenge in today’s industry, “creating that intimate connection” with the consumer. Amy expands on the notion of connecting with the consumer and insists that “you need to go further than that and understand people’s emotions”. An “emotional trigger” needs to be found, and this in turn, builds “customer loyalty” (Amy).

**Learning Challenges**

This subcategory refers to the learning challenges that the student experiences in the context of Marketing. This theme absorbs some of the high frequency codes such as creativity. Interviews conducted with third-level Marketing students highlighted the difficulties that presented themselves during the students’ creative thinking process. Hannah indicates that creativity doesn’t come naturally to her. She explains, that when she attempts to be creative, for instance, when coming up with creative ideas, “its kind of annoying because it takes me so long”.

Sentences including “Where am I going to start?” (Gemma), “It takes me a while” (Harry), and “I need more practice” (Ian), indicate other students’ struggles with the creative thinking process. A sentence expressed during the interviews conducted with Marketing lecturers develop on this as Brian explains, “they [the marketing student] have the misfortune of being stuck in the mind-set of the how the second-level education system has left them”. Evidently, the task of creative thinking appears to be a challenge for a number of Marketing students to grasp.
Furthermore, a number of students asserted that due to limited resources, such as time and money, they feel that their creativity is impacted in a negative way. Fiona explains, for instance, that due to an assigned budget as part of a project she’s currently undertaking, she finds her creativity is “limited”—“If you had like an unlimited budget, I could make something really, really amazing”. George adds to this, “it’s hard to be creative when you’re under pressure with time”.

(ii) SKILLS

Another theme emerging from the analysis is SKILLS. This theme absorbs some codes that can also be found under the theme of CHALLENGE. Some of these include, but are not limited to, the ability to be creative, the ability to generate ideas or think differently, the ability to engage with the consumer. During interviews conducted with both lecturers and industry professionals, the skill of creativity appeared to be highly regarded as interviewees spoke fondly on how they have applied or encouraged creativity in the past and at present. Catherine explains that she creates ‘in-class challenges’ for her students that “fosters creativity”. She asserts that these challenges need to appear attractive or ‘sexy’ to the student, in an attempt to make creativity interesting to them, so they “develop a hunger for it”. It is evident that the ability to form creative solutions and to think differently is seen as a valuable skill for marketers – “It’s how a student is going to become more attractive to an employer”(Frank). Fiona highlights that there’s an opportunity to be creative in every aspect of marketing, “from campaigns to content”.

Expanding on this, Elaine explains that her students get the opportunity to challenge their creative and problem solving abilities through working on a “real-world problem in conjunction with a real company”. “They’re given a brief, budget and timeline” and “have to come up with something different, something ‘wow’ but still fits the brief. It has to be creative, interactive and engaging”. She asserts that students are encouraged to “seek inspiration from what’s there
already”. She adds, “on completion of the project they receive the opportunity to showcase their ideas, which is brilliant!”.

Similarly, many students expressed that creativity was an appealing factor in module projects and feelings of satisfaction and enjoyment often stems from it. George asserts:

..It’s kind of the thing of seeing your idea come to life. It’s nice to think.. this is my idea on paper.. I’ve worked towards it and now it’s come to life and it’s like an achievement!

Rather than, if it was just a written project on something..

Signs of passion and excitement were detected as they spoke about creative ideas that they were applying to a particular project. Furthermore, their awareness of the importance of creativity is evident during discussion, “You need creativity to keep up and stand out.”(Ian).

The ability to engage with the consumer falls under the theme of SKILLS also. Mainly discussed by Marketing professionals as a requirement in this constantly changing and complex ‘Consumer Age’. When the topic of the consumer emerged during student interviews, in the context of consumer research, a number of students expressed that they “didn’t have the time to do it”. Furthermore, Adam adds “we couldn’t tell you how to make up a market research survey or questionnaire, that’s a complete business in itself. We could probably make up something very small.”

It should also be noted that codes such as design, communication and sales also emerged under this theme.
These themes become further intensified as the first order codes discovered through the initial interview stage of my research can also be seen throughout findings collected from other data gathering methods of the study.

4.2.2 The Five Whys Approach

Discoveries in section 4.2.1 relating to interviews conducted with industry professionals and lecturers of the Marketing department indicated their belief that a marketer’s ability to study and “connect” with a consumer is an exceptionally valuable trait in this era of “constant change” and “new technology”. In contrast, student interviews indicated a lack of desire to engage with, and learn about, their consumer. As there were notable contrasting views between the industry and lecturer interview candidates and the Marketing student interview candidates in regard to consumer research, it was necessary, with Design Thinking and empathy at the heart of this study, to investigate this new information further as a way of better understanding the students’ motivations and emotions. This desire to further investigate this discovery was intensified by the recollection of the emphasis in Chapter Two, as the literature highlighted the importance and necessity of the marketer’s ability to embrace the consumer and truly understand their “needs and desires”. Thus, The Five Whys Approach, with the help of two of the eight previously interviewed students, was adapted and employed.

As the interviewed students heavily emphasized the reason of not having enough time, as to why consumer research is not often undertaken in projects, this issue became the defined problem the participating students began to initially re-examine and reflect on during The Five Whys process. As demonstrated in Fig. 14 (i) on page 72, the first ‘why’ that was applied to the defined problem revealed that research on the consumer was often left until last minute. The participant’s response prompted me to consider the possibility that the marketing students may
not be aware of or fully comprehend the importance and contribution consumer research could have on the creation of any product, service, idea or solution.

Subsequently, the participants were asked why once again, to dig deeper. A number of reasons were expressed – “I forgot to”, “I presumed it wasn’t important to put in”, “It’s hard”. These answers supported my previous presumption that a quantity of Marketing students may be unaware of, or may not be well informed on, the necessity of consumer research.

When the participants were challenged with the question ‘why’, more discoveries surfaced – “Didn’t know how”, “Didn’t know what to look for”. A statement was added, “Sometimes you might research the wrong thing, then it’s just a waste of time”. A sense of doubt and uncertainty related to the process of consumer research emerged. On the fifth and final ‘why’ on why the student may have forgotten to research or why they found it difficult to tackle the task, students answered, “I didn’t understand the target market”.

To increase credibility the process of The Five Whys approach was repeated on the exact same defined problem once again, and this time the participants were encouraged to dig deeper and reply honestly once again, but with answers that had not already been asserted. Fig 14 (ii) outlines the results that arose from this process. A sense of indifference in relation to consumer research was detected.

With the remainder of available time leftover, another question was asked, based on additional information that emerged relating to consumer research during the student participant interviews. It attempted to re-examine why any information on market research that was undertaken by the students was predominantly obtained online. Fig 14 (iii) outlines these results.
The perception of the Marketing students’ apathy towards learning about the *consumer* and lack of knowledge on the process was stimulated once again.
Figure 14. The Five Whys Approach
4.2.3 Feedback Capture Grid

Following the application of The Five Whys and enhancing my understanding of the Marketing students’ thoughts and values, a Feedback Capture Grid was utilized to aid with the collection and analysing of data obtained from each informal discussion that immediately followed the ideation and prototyping process. As the ideation and prototyping process was iterative and cyclical, quite a lot of data was gathered. This data not only contributed to the improvement of my prototype as a toolkit that offered instruction and a learning experience, but also, expanded my knowledge on my user – the Marketing student – and their interaction and engagement with factors relating to creative and solution-orientated thinking. Subsequently, all data gathered from each Feedback Capture Grid combined were re-examined and broken down to identify reoccurring patterns. These patterns then went through a process of judging and eliminating and were finally redistributed to a final, ‘conclusive’ Feedback Capture Grid. The following describes and analyses these findings.

Words such as “enjoyable”, “exciting” and “fun” were used to describe the overall experience that the prototype offered. Participants particularly valued the process of “learning by doing” and concurred that the prototype contributed positively to a good grounding in the creative thinking and idea generation process, asserting sentences like “it was a fun way to learn and be creative”, “It pushed me”, “It helped me to think in a different way”, “It was nice to understand what I had to do and why I was doing it”. In addition, participants particularly valued the process of “learning by doing”.

Though feedback was generally positive, The Feedback Capture Grid encourages the unearthing and embracing of negative feedback and criticisms about the prototype. A prime issue concerning the prototype’s challenge was brought to my attention. As the prototype required the
student to design a solution in the form of either a product or service for the person whom they are paired with, concerns on difficulties that may arise when applying the prototype to the development of a service were voiced – “In comparison to a product, it would be difficult to construct something that depicts a service properly from raw materials like paper, lollipop sticks and that”. Another participant suggested that it might just work better for the development of products alone. Moreover, participants admitted to failing to adhere to the time limit that was assigned to each step and expressed that a feeling of “panic” set in during some steps, which, they explained, affected their thinking – “..it caused my mind to go blank”.

Some suggestions were also offered including the addition of a distinctive ‘time up’ sound which would alert the user when their time is up, and the proposal of employing this prototype in more amicable and spacious settings with enough capacity for creative activities. All criticism and suggestions were taken into consideration and applied during the development of my final Design Thinking Toolkit. Alterations included the addition of extra minutes to the amount of time assigned for certain steps, particularly at stages where the student revealed signs of struggle.

4.2.4 Toolkit Test and Observation

Through the observation of the participants’ interaction and engagement with each other and the developed Design Thinking Toolkit, the following observations were noted.

Generally, participants appeared to be relaxed in their demeanor throughout the testing. A lot of discussion was observed as each pair collaboratively worked through the guided steps of the toolkit. Notably, some individuals appeared to be more vocal than others. As time progressed, it was noticeable that all participants began to demonstrate a greater amount of confidence in their
engagement with one another and interaction with the toolkit. Individuals openly asked each other questions and voluntarily offered support and constructive criticism, “What if you..”, “How about instead maybe..”, “Did you try..”. An eagerness to achieve a meaningful solution was observed as the questions they asked one another gradually became more refined and thoughtful. As participants sketched their ideas and jotted notes their keen desire to deeply explore and understand their work partner was detected. Participants were observed generating a large number of different ideas for their solution and constructing new ideas through building on each others’. Furthermore, participants were observed thoroughly negotiating the meaning of the problem and ensuring both understood their intended goal. Improved communication and peer support was detected.

Excitement was identified as the participants reached the more ‘hands on’ step where they were required to build their idea from scratch with the provided the materials. During this process participants appeared to demonstrate careful consideration as well as creativity as they eagerly explored, through trial and error, various ways in which their solution could best be represented. Whilst most participants immediately started constructing their idea, minor struggle was observed in two individuals from two different pairs. They appeared to spend more of the time that was assigned for the ‘creation phase’, contemplating. An indication of more time still needed for some steps emerged. Another occurrence where difficulty was observed involved one participating pair during the testing. My aid was required here. The matter concerned the clarification of one question in a step that the pair did not fully comprehend.

While only one pair of the five participating pairs showed signs of struggle, it’s important to be aware of, and consider “Hawthorne Effect”; the notions that individuals tend to perform better under observation because of the attention paid to them. Another consideration, is the possibility
of participants feeling intimidated as they become aware that they are being observed, thus impacting their way of working. Moreover, a reminder that the Design Thinking Toolkit was in fact reduced to sixty minutes instead of ninety due to time limitations, should be noted.

Overall, the solutions, which the students created in the form of prototypes, appeared well thought out and well represented through the materials chosen by the student. Fig. 15 displays an example of Gemma’s solution to an issue that she identified, with the help of the Design Thinking Toolkit, that her work partner, Sophie, had during her last ‘gift giving experience’. Gemma recognized that Sophie experienced anxiety due to money concerns when trying to purchase a gift for her mother. The “Personal Security ‘Hands-off’ Piggy” with its integrated fingerprint access will reduce Sophie’s chances of spending the money she saves. It is intended that the fingerprints needed to access her savings is that of trustworthy friends or family and Sophie will need the three fingerprints in order to “get her hands on her money, which will make her reconsider trying to access her funds and think, ‘are those new shoes I want to buy really worth the effort’?”(Gemma).
Figure 15. Gemma’s Prototype Solution
4.2.5 Rating Scale

Fig. 16 presents the results of the rating scale.

The following describes the data represented in Fig. 16:

- 7 of 10 participants agreed that they were successful in accomplishing what I set out to do.
- 2 of 10 participants indicated that they did not feel at ease when they were using the Design Thinking Toolkit.
- 2 of 10 participants indicated that they were stressed when they were using the Design Thinking Toolkit.
• 1 of 10 participants felt that the Toolkit did not stimulate their problem solving abilities.
• 7 of 10 participants agreed that the Toolkit pushed them to ‘think outside the box’, while 1 strongly agreed.
• 6 of 10 participants agreed that the Toolkit helped them to gain a better understanding of their partner’s needs, while 4 indicated that they strongly agreed.
• 4 of 10 participants agreed that the Design Thinking Toolkit would be something that could potentially help them with certain module projects in the Marketing Course, while the remaining 6 indicated that they strongly agreed.
• 8 of 10 participants agreed that the Toolkit could potentially help them to address a number of future challenges they may face in the Marketing workplace, while 2 strongly agreed.

One question, question 7, allowed the student to offer input on which Marketing modules they felt the Design Thinking Toolkit could potentially facilitate with. These included: Market Research Methods Module, Marketing Strategy Principles, Selling Module, and group work assignments.

It should be noted that the participants that were observed completed the rating scales anonymously. Thus, participants who indicated, for instance, that they were stressed or did not feel at ease when they were using the Design Thinking Toolkit, cannot be linked to those who showed signs of struggle during the observation.

4.2.6 Empathy Map

An Empathy Map helped me to unpack the data collected from the focus group session, which occurred immediately after the completion of the Design Thinking Toolkit rating scale.
Generally, most of the feedback gathered during this session was positive, with useful suggestions that could be applied for future development of the toolkit noted. Participants expressed how the “structure” of the process they were guided through “spurred creativity”, and “pushes you to answer questions and consider questions you usually wouldn’t think of”.

Furthermore, the “short time windows” put pressure on to be innovative quickly, with one participant adding, “I liked the challenge of that”. The notion that the toolkit was “good for time management” emerged as students developed on the appeal of the “short time windows”.

Furthermore, participants found the teamwork aspect of the process particularly valuable, as it helped them to “bounce ideas off each other” and encouraged feedback and constructive criticism, which “pushed ideas”.

As the discussion progressed, some difficulties were identified. Three participants highlighted that one of the steps appeared very similar to the other. This caused a slight confusion. It was due to iterative nature of the Design Thinking methodology, as the participants were frequently prompted to “dig deeper” a number of times, and to “once again ask why”. At stages, they admitted, the iterative process was unappealing to them, as it “felt a bit repetitive”. A suggestion of a ‘go back’ button was communicated as students felt the option to “go back and look at a question again” or look at previous questions would be useful. Furthermore, a button option to pause the timer was proposed as two students admitted, “sometimes I would panic with the time pressure” and a pause button would “give me a breather”. Notable, while time pressure was seen as a positive to a number of participants, a negative impact was bestowed on others.
4.3 Synthesis

4.3.1 POV Madlib Technique

In section 4.2, data was carefully broken down with the aid of different analysis techniques, in pursuit of understanding the Marketing student and their engagement with the Design Thinking methodology. This section applies The POV Madlib Technique, which provided me with valuable steps that guided me through the process of synthesizing the needs and insights that accumulated during my analysis stage. The following describes the steps and my findings.

The first step of the POV Madlib Technique, required the evaluation of the findings gleaned from the analyses findings described in Section 4.2. This evaluation had the specific aim to distinguish distinctive emerging traits that defined the type of person whom my study was focused on – the Marketing student. The following adjectives described the qualities that were noticed: busy, occupied, active, creative, uninterested, insecure, anxious.

For the second step of the process, it was necessary to re-examine the discoveries made in section 4.2, and select the Marketing students’ most essential needs, the needs which appear to be most important to fulfill. The following were selected: to have the ability to be creative, to generate valuable ideas, to engage with their consumers, to have the hunger to gain an understanding of the consumer, to know how to to deal with complex Marketing situations.

Step three, the final step, encouraged me to extract interesting insights that emerged from section 4.2, and develop a number of statements from this, in a way in which combines the defined user (information gathered in step one), and their needs (information gathered in step two). A
simplified explanation can be seen in the madlib presented in Fig. 17 which was used to capture and harmonize the three elements: user, need, and insight that were explored above.

Point of View Madlib

![Madlib Diagram]

Figure 17. POV Madlib

The following are the formulated statements which transpired from this technique:

- A diligent third-level Marketing student, who often experiences anxiety and frustration when dealing with creative and solution-orientated thinking, needs to be supported with the right instructional and adaptable tools that will guide them through the process of creative thinking and idea generation, thus allow him/her to improve and develop his/her creative confidence, as he/she is unaware of any particular methods or processes that could be used to help guide him/her through ‘thinking outside the box’.

- An energetic and preoccupied Marketing student needs to be equipped with an engaging and efficient tool that can swiftly guide the student through the necessary process required to complete relevant market research, as this research is often seen as a boring and unimportant process in the eyes of a Marketing student, and consequently a “waste of time” – however, an understanding of the consumer is a major necessity the eyes of
thriving businesses as a means of staying relevant and gaining a competitive advantage in this digitalized and globalized world.

These statements, considered as problem statements, allowed me gain a deeper understanding of the Marketing student and who they are as individuals in the Marketing education environment, with the aim of trying to understand the learning and performance challenges that they face, and accordingly identify if Design Thinking can truly accommodate those needs.

4.4 Summary

In this chapter, the collected data that was gathered during this study was unpacked, analysed and synthesized, in order to transform my discoveries into compelling insights and address my research question. The findings in section 4.2, presented some interesting observations and saw the emergence of codes forming patterns throughout each method of the study. Following this section, the synthesis of my findings allowed me to forge associations between seemingly unrelated matters with an aim to form “whole ideas” (Brown, 2018). The POV Madlib Technique aided me in the re-examination and reconstruction of my data analyses and subsequently, enhanced my understanding of the Marketing student and the challenges that they face in the context of learning and performance challenges, and accordingly identify if Design Thinking can truly accommodate those needs.
Chapter 5: Discussions and Conclusions

5.1 Discussion

5.1.1 Overview

On completion of the study, it has become more apparent that a specific set of skills is required of the Marketing student in order for them to progress favorably in this ‘technological upheaval’. Chapter Two offers information on today’s modern marketer requirements and expresses the idea that Marketing students lack the skills that are most sought after by employees. Ultimately, the insight that was collected through the methods utilized in this thesis confirms these findings.

This chapter discusses the key areas regarding the potential of the Design Thinking methodology for Marketing students in third-level education in the context of workplace learning and performance challenges. Section 5.1.2 describes the most predominant challenges that emerged through the analysis and synthesis of my collected data. This section presents a comparative study of the findings presented in the literature review in Chapter Two and the insights, which emerged in Chapter Four of my study. In Section 5.1.3, the potential of the Design Thinking methodology as a beneficial and effective learning process for Marketing students in third-level education is discussed. Section 5.2 then outlines the implications for further research and development, as well as, practice, education and curriculum design.
5.1.2 The Marketing Student

In this section, challenges refer to the difficulties, regarding the Marketing student, that were detected through the study’s various engagement and observation methods. Three most frequent challenges emerged relating to (i) change, (ii) creativity, (iii) problem solving and, (iv) the students’ inability to connect with the consumer on a deeper level.

The first obvious challenge the Marketing graduate will have to be able to adapt to in the Marketing workplace is ‘change’. Research has emphasized the numerous difficulties encountered by businesses that are forced to adapt rapidly to the changes compelled by forces of globalization and exponential technical growth of the digital revolution (Aaker, 2010; Harvey, 2006; Napier et al., 2006; Pleil & Zerfass, 2014; Zerfass & Piwinger, 2014). Failure to quickly respond to such compelling factors will inevitably result in failure to competitively survive (Gijbels et al., 2010, p. 240; Tynjälä, 2008, p. 131). In today’s marketplace, creative ideas and solutions to problems can equip any marketer with a competitive advantage (McCorkle, et al., 2007). Creativity, in its simplest form, is the construction of an idea that combines known elements into something new (Ciardi, 1956). For years, practitioners have stressed the necessity of constant creativity and innovation for guaranteed success in business (Anderson, 2006; Titus, 2000). A grasp of the skill can improve the quality of ideas and solutions to marketing problems (McCorkle et al., 2007).

Findings that emerged from interviews in this study conducted on Marketing industry professionals and Marketing lecturers have also expressed creativity’s significant role in marketing today. It has been described as “how your company is going to stand out” (Elaine), and a relevant skill required by employees in the Marketing industry.
While creativity is evidently an important skill needed for future marketers (Anderson, 2006; Andrews & Smith, 1996; BusinessWeek, 2010; Lemon, 2016), my study reveals that it can be regarded as a learning challenge faced by numerous Marketing students. A problem statement synthesized from section 4.3 reflects this.

While literature highlights the Marketing student’s inability to form unique or imaginative ideas that are capable of creating competitive advantage (Beverland & Farrelly, 2011; Lunsford, 1990), this study suggests that this creative deficiency and struggle that is apparent in my research, may be due to the lack of information provided to the student on specific instructional creative thinking processes.

Another learning challenge that emerged from my study, which is often linked with creativity, is the process of idea generation in relation to problem solving. Practitioners in the field express that often when students set out to problem solve they chose the first reasonable solution that is found, thus often do not give themselves the opportunity to push ideas to their full potential. Furthermore, often when solutions do demonstrate characteristics of creativity or innovation, researchers found that these ideas were often “unsupported” or “disconnected” to the research that the student had gathered (McCorkle, et al., 2007).

According to Weber and Henderson, creativity fuels our connection with our customers. The Marketing student’s inability to connect with the consumer on a deeper level is also considered as another learning challenge experienced by the Marketing student. It is vital for today’s Marketer to engage with their customers (Teece, 2010) and to understand not what they want, but why they want it (Drews, 2009). Interviews conducted with Marketing industry professionals and Marketing Department lecturers reveal that consumer engagement is key to gaining a
competitive advantage. An examination into literature however, reveals that though businesses may succeed in obtaining knowledge on the consumer, often many marketers fail to effectively utilize and apply the information that they learn, to what they offer consumers (Achenbaum, 1987; Allen & Markey, 2006; Carlgren et al., 2016; Chahal, 2014; Newman, 2015; Schultz, 2014).

In addition, though literature indicates that organisations have purposely shifted from a production orientation towards a more market-orientated means, where customer demands predominate, the research undertaken in this study reveals that Marketing students’ appear uninterested in researching or engaging with the consumer. A problem statement synthesized from section 4.3 reflects this.

There is an evident need for methods that empower the marketer to go beyond what the customer can voluntarily articulate (Zaltman, 2003, p. 75) and “dig more deeply” below “surface-level thinking and behaviour” (Price et al., 2015). Discussions in section 5.1.3 will include the examination of the potential of Design Thinking for Marketing students in the context of learning challenges related to creative thinking, idea generation and consumer engagement. Furthermore, an outline of findings regarding performance challenges, that have been derived from the Design Thinking Toolkit testing and observation, is provided.

5.1.3 The Potential of Design Thinking for Marketing Students

The potential of Design Thinking can be addressed by examining the students’ understanding and application of the Design Thinking principles. This study has informed the following headings in relation to the potential Design Thinking can offer Marketing Students in third-level
education: (i) Design Thinking can be a tool that fosters creative thinking, (ii) Design Thinking can add structure to the students’ idea generation process when dealing with matters that require problem solving, (iii) Design Thinking can facilitate with consumer engagement. The subsequent paragraphs in this section describes these in more detail.

(i) **Design Thinking can be a tool that fosters creative thinking.**

During the testing of the Design Thinking Toolkit, the students demonstrated a growing creative confidence in their engagement with one another and interaction with the toolkit. Though it was not apparent at the beginning of the session, as time progressed and students showed evidence of creativity as they gained a better grasp of the methodology. Individuals were observed openly asking each other questions and voluntarily offering support and constructive criticism, “What if you..”, “How about instead maybe..”, “Did you try..”.

The process of building their prototype further intensified the notion that Design Thinking fostered the creative thinking of the study participants. During this process participants moved around their tables investigating the various materials that they could use to build their idea, whilst also sharing ideas with one another, and then continuing to eagerly explore, through trial and error, the various ways in which their solution could best be depicted. A majority of participants demonstrated proficient use of limited material and imagination paired with good logic. Furthermore, a number of students took it upon themselves to create inventive names for their prototypes, that demonstrated creativity.

Moreover, the notion that the toolkit stimulated creative thinking was proposed during the focus group session with participants asserting that the process they were guided through “spurred creativity”, and “pushes you to answer questions and consider questions you usually wouldn’t
think of”. Furthermore, they added that, the “short time windows” put pressure on to be innovative quickly, with one participant adding, “I liked the challenge of that”. 7 of 10 participants agreed that the Toolkit pushed them to ‘think outside the box’, while 1 strongly agreed. Furthermore, 8 of 10 participants indicated that they did not feel stressed when utilizing the Design Thinking toolkit.

(ii) Design Thinking can add structure to the students’ idea generation process when dealing with matters that require problem solving.

The Design Thinking Toolkit invited the participants to redesign the user’s (their work partner) ‘gift-giving experience’. The ‘ultimate goal’ was to improve the experience their work partner would usually undergo during the process of thinking of; creating; buying; wrapping; delivering a present for their loved one or comrade. Each individual in each pair set out to design a solution in the form of a product or service, that predominantly focused on their partner and their partner’s needs.

During the testing of the toolkit, participants demonstrated a thought process that reflected a good understanding of the Design Thinking methodology. They were observed thoroughly negotiating the meaning of the problem and carefully developing a plan to reach their goal. The idea generation process (Ideation process) in the Design Thinking methodology gave the participants an opportunity to combine the information and understanding they gained from engaging and interacting with their work partner, the person whom they were providing a solution for, with their imagination and creativity to generate solution concepts best suited for their work partner. The sketches of their ideas and jotting of notes which evidenced insights, reflections and concepts, demonstrated their deep exploration and understanding of their work partner and the process. The participants were observed generating a large number of different
ideas for their solution and constructing new ideas through building on each others’. Finally, the Design Thinking Toolkit allowed them to evaluate the competing ideas they had generated and bring forward the most relevant idea which best addressed the challenge they were initially provided with. Whilst generating and reflecting on different ideas and concepts, the participants embraced the collaborative approach of Design Thinking.

Feedback gained during the focus group session, indicated that the idea of asking why encouraged the students to ‘further explore various possibilities’ which they would not have initially thought of. They asserted that it encouraged them to “think differently”. Moreover, participants expressed that the Design Thinking Toolkit could aid in the idea creation process of a number of possible Marketing modules. These included: Market Research Methods Module, Marketing Strategy Principals, Selling Module, and in addition, any group work assignments. Findings from the Rating Scale Survey indicated that only 1 of 10 participants felt that the Toolkit did not stimulate their problem solving abilities.

(iii) Design Thinking can facilitate with consumer engagement.

Human-centered innovation begins with “developing an understanding of customers’ or users’ unmet or unarticulated needs” (Naiman, 2018). It is suggested that the best and most successful source of new ideas that “have true competitive advantage, and hence, higher margins, is customers’ unarticulated needs” (Liedtka, 2011, p. 17). According to Jeanne Liedtka, American strategist, particularly known for her work on strategic thinking, design thinking and organic growth, “Customer intimacy—a deep knowledge of customers and their problems—helps to uncover those needs” (Naiman, 2018).
An important component of Design Thinking is understanding human needs. This is encouraged through empathy. As the toolkit guided the participants step by step through the methodology of Design Thinking, participants demonstrated their desire to understand their work partners’ needs. They engaged with one another through interviews and discussions which encouraged them to dig deeper and learn more about their work partner’s feeling and emotions. Well thought-out empathetic questions were detected during observation and participants appeared interested in learning more about their work partner, asserting words and sentences such as “Why?”, “and how did you feel about that?” “Could you tell me more about it?” Such questions allowed for the emergence of ‘needs’ that could be identified and interesting ‘insights’ which the participants may have never thought of before. As the participants progressed on to the steps of the toolkit which involved the process of idea generation (as discussed previously), the Design Thinking methodology urged participants to provide feedback and criticism on each others’ thoughts and ideas allowing for more opportunities to extend their understanding on their work partner’s motivations and beliefs. Each participant then reflected carefully on what they discovered each time and continued to enthusiastically create new and more meaningful solutions for their partner.

The participants appeared to have attained a deep knowledge of their partner and their problems. This was reflected through the prototypes that they created to represent their solution. An eagerness to practice empathy was demonstrated in their efforts to meet the specific needs of their work partner successfully. Students expressed that they were satisfied with their outcome. The focus group session which followed the toolkit test demonstrated the idea that participants become aware of the importance of consumer research and how the information gathered from their work partner hugely contributed to their ability to create a more meaningful and relevant solution – “I asked questions I never thought of before” (Fiona), “I have this massive feeling of
satisfaction..like accomplishment!” (Gemma). Rating Scale findings indicates that 6 of 10 participants agreed that the Design Thinking Toolkit helped them to gain a better understanding of their partner’s needs, while 4 indicated that they strongly agreed.

5.2 Conclusions

5.2.1 Overview

This study examined the potential of Design Thinking as a beneficial and effective learning process for Marketing students dealing with marketing problems that require creative and solution-orientated thinking. The following section, by way of concluding the findings and discussions in this thesis, offers some thoughts concerning potential future research and some implications for practice, education and curriculum design.

5.2.2 Implications for Practice

An investigation into Design Thinking reveals the enormous contribution it could offer the Marketing student in terms of creativity and idea generation processes, as well as a tool that offers a basis for deep and meaningful consumer research. Studies reveal, however, that early marketing educators appear to be less inclined to adapt or take on the teachings of Design Thinking. Traditional marketing methods are preferred (Ferrell et al., 2015) as many marketing educators have not been trained on the methodology of Design Thinking, and thus do not have adequate knowledge to teach the process of Design Thinking to students. Subsequently, teachers should perhaps be supported in integrating such learning processes. Some thoughts regarding the possible implications for practice in this context are discussed.
Firstly, The Design Thinking Toolkit could offer a replacement or support for having internal or in-house design thinking capacity or expertise as the toolkit provides opportunities for skills development potentially useful for academic leaders or faculty members within higher education thus reducing skills and competencies gaps. Secondly, as the process of Design Thinking embraces creativity, it could be used as a tool aimed at offering instruction and guidance through processes such as ideation or brainstorming, for example, where creative and solution-orientated thinking is required in the classroom. Thirdly, the toolkit strives to guide its user through an effective exploration strategy that aids them in successfully tackling a problem. The desired effect of repeating the practice of the Design Thinking methodology, is that potentially over time the student will eventually apply the toolkit or methodology habitually and with more ease, when confronted with unfamiliar problems that may arise in the workplace for instance. In addition, the notion of what it means to be a marketer of the future can perhaps be expanded as evidently marketers are now seen as being much more central to the customer experience – as individuals who maybe cannot be kept separate any longer from the people who design our products and our services.

5.2.3 Implications for Education and Curriculum Design

It is essential for educational institutions at all levels to become more responsive to societal transitions and offer educational services that can make the contributions that are necessary to support our society of innovative graduates (Ananiadou & Claro, 2009; Kereluik et al., 2013; Laguardia & Pearl, 2009; Norris, et. al, 2012; Rutkowski et al., 2011; Yan Yan, 2010). In this section, some thoughts regarding the possible implications for education and curriculum design are discussed.
Firstly, the toolkit could support a ‘flipped classroom’ module. Creating time for creative thinking activities is important, but sometimes difficult to achieve (Cambridgeinternational.org, 2011). The objective of ‘flipping the classroom’ so that lecture material is covered by students as a practice of self-directed learning outside of class provides extra in-lecture time for experiential-learning activities. Employing a flipped classroom approach for example, would allow students to prepare for a specific challenge or brief provided by the educator in advance in the home environment, thus enable educators, in turn, to plan for toolkit based higher-level creative thinking activities during class time. As students are occupied with minimal lecturer instruction, the constructing of their own meaning from interactions with other peers is consequently encouraged (Parker et al., 2013). Introducing the toolkit to this approach, could reward individuals not for what they know and prepared for at home, but for what they can do with what they know and prepared for.

Secondly, my toolkit could facilitate constructivist type activities where the students are actively involved. A constructivist approach develops thinking skills such as problem solving, as well as communication and social skills, and can ultimately help students transfer skills to the real world. Consequently, the toolkit could potentially offer support for teachers and lecturers who wish to go beyond conventional, instructional training – teacher-centric classrooms that are often seen as restricted and lacking collaboration and group learning (Nazzal, 2014). Thirdly, it is suggested that there is a demand for methodologies in Marketing that better address the needs of today’s and tomorrow’s marketer (Constantinides, 2006). The human-centred, problem-solving activities in the toolkit that ground Design Thinking in practice has the potential of addressing this (Brown, 2009; Martin, 2009; Mohr, 2015; Wager, 2012). Lastly, the toolkit could prepare teaching staff and student alike for a future that emphasizes the role of creative and solution-
orientated thinking – skills both important and necessary for present and future generations (Anderson, 2006; BusinessWeek, 2010; Lemon, 2016).

5.2.4 Implications for Further Research and Development

With regard to the study and toolkit, there are a number of implications in which would be interesting to investigate further. Firstly, further research implementing different and more robust data gathering techniques would be useful in order to reduce the range of limitations and validity threats. This could include, for instance, the utilization of other peripheral devices not used in the present study such as eye tracking devices. This could contribute to the usability testing process in a way that offers an improved user’s experience as a result. Secondly, regarding the participant group for example, the sampling strategy could be altered to make for a less homogeneous group (e.g., a variety of those with very different cultural or educational backgrounds, age group etc.). Thirdly, for the purpose of adapting to the participants busy schedule, the duration of the testing was reduced. The consideration of a prolonging the duration of participant interaction with the toolkit would be beneficial. In addition, a further expansion of the environments used in the study would be of value. The prototype could be tested on a group of Graphic Design graduates for instance or utilized in a workplace setting on marketing industry professionals. With that, longitudinal research should also be considered as repeated observations of the same variables such as people over longer periods of time, could present findings based on the effectiveness of the toolkit as it becomes something that’s more habitual as study participants and other users deal with workplace challenges. Lastly, the design and actual construction of the toolkit would also be valuable for further research also.
Appendix A – Prototype and Toolkit Explanation

Prototype 1
- Low fidelity
- Paper prototype
- Black & White

Feedback based on test of prototype on 2 pairs of participants

Prototype 2
- Low fidelity
- On screen
- Moderately Interactive
- Black & White

5 rounds of Prototypes were developed, tested and improved upon each time

Additional improvements made based on all feedback gathered on prototypes

The Design Thinking Toolkit
- High fidelity
- On screen
- Visually appealing
- Engaging

Feedback based on Test & Observation of 5 pairs of participants all at the same time

Ideate & Prototype
‘CREATE’ stage seen in Fig. 6

Test & Observe
‘BUILD’ (Validate) stage seen in Fig. 6
Appendix B – Rating Scale Survey

What year are you in? ________________

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<thead>
<tr>
<th></th>
<th>STRONGLY DISAGREE</th>
<th>DISAGREE</th>
<th>AGREE</th>
<th>STRONGLY AGREE</th>
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<tbody>
<tr>
<td>1.</td>
<td>I felt that I was successful in accomplishing what I set out to do.</td>
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<tr>
<td>2.</td>
<td>I felt at ease when I was using the Design Thinking Toolkit.</td>
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<tr>
<td>3.</td>
<td>I felt stressed when I was using the Design Thinking Toolkit.</td>
<td></td>
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<tr>
<td>4.</td>
<td>I feel that this Toolkit stimulated my problem solving abilities.</td>
<td></td>
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<td>5.</td>
<td>I feel that this Toolkit pushed my ability to ‘think outside the box’.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6.</td>
<td>I feel that this Toolkit helped me to gain a better understanding of my work partner’s needs...</td>
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<tr>
<td>7.</td>
<td>I feel that this Design Thinking Toolkit would be something that could potentially help with certain module projects in the Marketing Course.</td>
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<td>7 i.</td>
<td>Please state why you feel this way and, if applicable, which module in particular</td>
<td>__________________________</td>
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<tr>
<td>8.</td>
<td>I feel that this Toolkit could help to address a number of future challenges I may face in the Marketing workforce...</td>
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Appendix C – Consent Form (Research Interview)

Consent for participation in a research interview

**Project:** An Investigation of Design Thinking as an Innovative Teaching Tool in Third Level Marketing Education.

I agree to participate in a research project led by Christina Pinkaow from Cork Institute of Technology (CIT). The purpose of this document is to specify the terms of my participation in the project through being interviewed.

1. I have been given sufficient information about this research project. The purpose of my participation as an interviewee in this project has been explained to me and is clear.

2. My participation as an interviewee in this project is voluntary. There is no explicit or implicit coercion whatsoever to participate.

3. The interview will last approximately 20 minutes. I allow the researcher to take written notes during the interview. I also may allow the recording (by audio/video tape) of the interview. It is clear to me that in case I do not want the interview to be taped I am at any point of time fully entitled to withdraw from participation.

4. I have the right not to answer any of the questions. If I feel uncomfortable in any way during the interview session, I have the right to withdraw from the interview.

5. I have been given the explicit guarantees that, if I wish so, the researcher will not identify me by name or function in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure.

6. I have read and understood the points and statements of this form. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

7. I have been given a copy of this consent form co-signed by the interviewer.

Participant’s Signature __________________________ Date ________________
Researcher’s Signature __________________________ Date ________________

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Appendix D – d.school’s Virtual Crash Course Playbook
(d.school, 2017)

Start by gaining empathy.

Here is language to support how to facilitate these steps.

1. Interview your Partner
   - Your challenge is to design something useful and meaningful to your partner.
   - The most important part of designing for someone is to gain empathy for that person.
   - Example: While there are lots of ways to gain empathy for someone else, a simple, easy way to do that is to have a conversation and ask open ended questions. “When was the last time you gave a gift? How did it go? What was your favorite part? Least favorite part? Etc.”

2. Dig deeper
   - Try to dig for stories, feelings, and emotion.
   - Ask ‘Why?’ often.
   - Forget about the gift, find out what’s important to your partner.
   - Example: For example, if your user mentioned that it’s challenging to decide on which gift to purchase, ask why? Maybe it’s because they don’t really know what the other person wants, or maybe it’s because they’re afraid of what the gift says about THEM as the giver - any answer will lead you to understand your user (the gift giver) better. The key is to identify anywhere you’re making assumptions and then ask a question to test whether your assumption is valid.

3. Capture findings
   - Try to synthesize your learning into a few ‘needs’ that you have discovered, and a few ‘insights’ that you find interesting.
   - Needs should be verbs - think about it this way - in the process of giving a gift, what does your user actually trying to accomplish? What does gift giving do for THEM?
   - Insights are discoveries that you might be able to leverage when creating solutions.

Ideate: generate alternatives to test.

Here is language to support how to facilitate these steps.

4. Take a stand with a point of view
   - This is your point of view.
   - Take a stand by specifically stating the meaningful challenge you are going to take on.
   - It should feel like a problem worth tackling!
   - Example: Maybe you found that your partner is really trying to reunited the family, or reignite a lost love, or infuse adventure into a boring suburban existence; or reconnect with an old friend, or demonstrate his own creativity!

5. Sketch to ideate
   - Rewrite your problem statement at the top of the page.
   - Now you are creating solutions to the new challenge you’ve identified.
   - GO FOR VOLUME! This is time for idea generation, not evaluation.
   - You don’t have to draw well, stick figures and squiggly lines are A-OK!

6. Share solutions and capture feedback
   - Spend the time listening to your partner’s feedback.
   - Fight the urge to defend your ideas. This is not about validation.
   - This is an opportunity to learn more about your partner’s feelings and motivations (remember: empathy).
Appendix E – d.school’s Virtual Crash Course Worksheet
(d.school, 2017)

Your mission: Redesign the gift-giving experience ... for your partner. Start by gaining empathy.

1 Interview
8min (2 sessions x 4 minutes each)
Notes from your first interview

2 Dig deeper
8min (2 sessions x 4 minutes each)
Notes from your second interview

Switch roles & repeat Interview 1.
Switch roles & repeat Interview 2.

d. ●●●●

Reframe the problem.

3 Capture findings 3min
needs: things they are trying to do*
*use verbs

insights: new learnings about your partner’s feelings/worldview to leverage in your design*
*make inferences from what you heard

4 Define problem statement 3min

<table>
<thead>
<tr>
<th>partner name/description</th>
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needs a way to __________________________ user’s need

Surprisingly // because // but...
(circle one)

_________________________

insight
Appendix F – Consent Form (Toolkit Test and Observation)

Consent for Participation in a Prototype Testing

Project: An Investigation of Design Thinking as an Innovative Teaching Tool in Third Level Marketing Education.

I agree to participate in a research project led by Christina Pinkaow from Cork Institute of Technology (CIT). The purpose of this document is to specify the terms of my participation in the project.

1. I have been given sufficient information about this research project. The purpose of my participation as a prototype tester in this project has been explained to me and is clear.

2. My participation as a participant in this project is voluntary. There is no explicit or implicit coercion whatsoever to participate.

3. I allow the researcher to take written notes during the prototype testing. I also allow the recording (by audio/video tape) of the testing. It is clear to me that in case I do not want the testing to be taped I am at any point of time fully entitled to withdraw from participation.

4. I have the right not to answer any of the questions. If I feel uncomfortable in any way during the session, I have the right to withdraw from the prototype testing.

5. I have read and understood the points and statements of this form. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

6. I have been given a copy of this consent form co-signed by the interviewer.

_________________________________________  ________________________
Participant’s Signature                     Date

_________________________________________  ________________________
Researcher’s Signature                      Date

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