MOOCs as a Pathway into Higher Education

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Certificate of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Charles Sturt University or any other educational institution, except where due acknowledgement is made in the thesis. Any contribution made to the research by colleagues with whom I have worked at Charles Sturt University or elsewhere during my candidature is fully acknowledged.

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14/2/19

Jason Howarth
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Publications


Abstract

MOOCs (Massive Open Online Courses) are increasingly used by higher education providers to promote their fee-paying programs or courses. This is particularly the case for university institutions, many of whom offer MOOCs to showcase their brand and to attract additional students. However, while multiple studies have examined the reasons why individuals enrol into MOOCs, little is understood about the effect of course engagement on their later educational goals and enrolment behaviour. The current work redresses this gap by investigating the effectiveness of MOOCs as a free trial of the aligned university’s courses, including the impact of MOOC engagement and completion on participants’ future study intentions and choices.

This research uses a mixed methods approach to examine the goals, attitudes and selection preferences of MOOC students concerning universities and university study. This was accomplished through the use of two separate longitudinal studies of MOOC participants. The first of these consisted of a demographic survey and two sets of individual interviews (pre and post-MOOC) with 19 participants enrolled in a course on business analysis. The second study involved the use of pre- and post MOOC surveys of 106 participants enrolled into courses on project management and cyber security.

The findings from both these studies show that engagement with a MOOC can positively influence the future university intentions of participants as well as their choice of an academic provider. In the case of an increased intention to enrol at university, this was typically accompanied by an increase in the number of goals which participants thought could be successfully reached through a university pathway. The main catalyst for this change did not appear to involve the successful completion of a MOOC; rather, it was particularly evident for those who attended an in-MOOC information session that focused on the goal-benefits of university study.

In terms of participants’ post-MOOC enrolment intentions and consideration processes for the host university, a dedicated marketing session appeared to have little effect, as did MOOC completion or participants’ educational background. Instead, satisfaction both with the overall MOOC experience as well as with particular elements (learning materials and teaching
style) emerged as the most important factors. These results highlight the marketing potential of Massive Open Online Courses as a pathway into higher education, giving hope of a sustainable future for a technology that has often been considered financially unviable.
CHAPTER 1
Introduction

1.1 Overview

Of recent advancements in education, few have captured public attention so much as Massive Open Online Courses (MOOCs). Defined as “university-affiliated courses offered to masses of online learners for little or no cost” (Selwyn, Bulfin, & Pangrazio, 2015, p. 175), the early popularity of MOOCs was boosted by their link with high-profile academic institutions such as Stanford, Harvard, and Princeton, by the fact that course materials were offered entirely online, and through the open enrolment policies of providers, which imposed neither entry restriction nor cost on participants (Daniel, 2012). These features also brought MOOCs into the media spotlight, with the New York Times declaring 2012 as the Year of the MOOC (Pappano, 2012), and others pronouncing them an existential threat to traditional on-campus providers (Barber, 2013; Mazoue, 2014; Vardi, 2012).

This early hype was perhaps well-founded. Beginning as an experiment in the learning theory of Connectivism (Cormier & Siemens, 2010), MOOCs won mainstream prominence in 2011 when two colleagues from Stanford University gave free online access to their course on Artificial Intelligence, attracting 160,000 students (Rodriguez, 2012). This event led to the establishment of the first commercial MOOC platforms (Daniel, 2012). Demand soon followed, and by 2013 there were 279 documented MOOC offerings with a median enrolment of 42,844 students (Jordan, 2014). One year later, MOOC provider Coursera reported 10.5 million registered users, edX 3 million, and Udacity 1.5 million (Shah, 2014). Clearly MOOCs had lived up to the first letter of their acronym (they were ‘massive’) and on this basis alone threatened to disrupt higher education (Jacoby, 2014).

But it was not just the sheer scale of MOOCs that first roused interest; it was also their potential for widening access to tertiary education for those traditionally unable or unwilling to attend (Jansen & Konings, 2018; Lane, Caird, & Weller, 2014; Liyanagunawardena, Williams, & Adams, 2014). As noted by Yuan and Powell, “the development of MOOCs is rooted within the ideals of openness in education, that knowledge should be shared freely,
and the desire to learn should be met without demographic, economic, and geographical constraints” (2013, p. 6). Thus, alongside their ability to attract massive enrolments, MOOCs promised a higher good: That of expanding educational access. Such an approach might be especially important in burgeoning markets like India, where demand for higher education outstrips the number of university places available (Liyanagunawardena, Williams, et al., 2014).

It wasn’t long, however, before this early MOOC idealism was overtaken by more sombre commentary. Researchers began to censure the high levels of MOOC attrition (Altbach, 2014; Fischer et al., 2014; Hollands & Tirthali, 2014a; New, 2014; Sandeen, 2015), the conservative pedagogies used (Yuan & Powell, 2013), and the traditional demographic which these courses served – mostly educationally-privileged males (García-Peñalvo, Fidalgo-Blanco, & Sein-Echaluce, 2018; Glass, Shiokawa-Baklan, & Saltarelli, 2016). In addition, from a financial perspective, MOOCs were unlikely to be sustainable because “even the most generous estimates of ... revenue streams do not seem to equal documented investments in MOOC platforms, let alone providing any return on those investments” (Sandeen, 2015, p. 17). Thus, in terms of the Gartner Hype Cycle (see Linden & Fenn, 2003) MOOCs went from the peak of inflated expectations in 2012 through to the trough of disillusionment, with their viability questioned (Hollands & Tirthali, 2014a; Sandeen, 2015; Tirthali, 2016).

But do these more recent (and damning) views represent an over-correction of the earlier idealism? Rather than taking an all-or-nothing approach, a more nuanced assessment is called for, one which navigates the extremes of both hype and condemnation (Fischer, 2014). So instead of speculating (as some have done) about how MOOCs might help relieve world poverty (Friedman, 2013) or displace traditional university campuses (Gaebel, 2014) – or, at the other extreme, about their disappointment in failing to live up to such expectations (Ichou, 2018; Kolowich, 2013a; Krause, 2014; Reich & Ruipérez-Valiente, 2019; van de Oudeweetering & Agirdag, 2018), this thesis attempts a more modest goal: That of understanding how MOOCs are currently used, and their effect on the university ambitions and choices of those who take them.

While MOOCs may not have extended, in any significant way, the reach of higher learning to the educationally disadvantaged, their effect on the university intentions of those who
Currently take them is still a worthy insight, one that will help us understand how MOOCs and universities fit together into a broader educational ecosystem. This approach is, in fact, consistent with some of the more moderate MOOC commentary, which notes that they are likely to “augment rather than replace formal educational models” (Daniel, Cano, & Cervera, 2015, p. 66). So far, however, the link between MOOCs and university has been established in only one direction, with researchers reporting that a high proportion of MOOC students are qualified at the bachelor level (Carr, 2013; Christensen et al., 2013; Ho et al., 2015; Sandeen, 2015). Little is known, in contrast, about the effect of the MOOC experience on students’ subsequent university goals. At a time when policymakers in both developed and developing countries seek to widen university participation, this is an important topic of focus (Burke, 2013; Chowdry, Crawford, Dearden, Goodman, & Vignoles, 2013; Gale & Parker, 2013; James, 2007).

How might an ambition for university study arise from a MOOC context? The answer could involve the way that goals, and the means used to reach them, often undergo revision as a result of previous goal-striving activity (Fishbach, Zhang, & Koo, 2009; Gollwitzer, Fujita, & Oettingen, 2004; Oettingen & Gollwitzer, 2007). Unfortunately, the dynamic nature of goal-oriented behaviour is a topic largely ignored by the current MOOC literature, which has most often focused on the goals of MOOC students as they appear at the outset of their enrolment (e.g., Carr, 2013; Jordan, 2014; Williams, Stafford, Corliss, & Reilly, 2018; Youngman, 2013; Zheng, Rosson, Shih, & Carroll, 2014) without also examining how the course experience may affect their choice of later educational pathways.

Since goal attainment often involves the use of products and services (Bagozzi & Dholakia, 1999; Epp & Price, 2011), any change in goal direction may also influence the selection of brands used to reach one’s objective (Brandstätter, Heimbeck, Malzacher, & Frese, 2003; Oettingen & Gollwitzer, 2007). In the current context, this means that an individual who transitions from MOOC to university must choose a specific institution to study with. Can the MOOC experience affect such a decision? While the strategy of brand exposure is noted as a key reason for offering MOOCs (Aparicio, Bacao, & Oliveira, 2014; Jansen & Konings, 2018; Karsenti, 2013; New, 2014) little evidence is given in support of its efficacy; and indeed, MOOC
providers “are only just beginning to think about how to capture and quantify brand related benefits” (Hollands & Tirthali, 2014a, pp. 8-9).

Although some scholars doubt the branding power of MOOCs (e.g., Sandeen, 2015), others suggest this is fertile ground for closer investigation (Howarth, D’Alessandro, Johnson, & White, 2016; Tirthali, 2016). Karsenti (2013), for example, found that a positive MOOC experience not only increased exposure to the associated university brand, it also encouraged participants to look favorably on that brand. This suggests that those completing a MOOC may explore follow-on study opportunities; and that, for some, MOOC participation does not represent some isolated or discrete educational event, but a milestone on a longer educational journey (Landau et al., 2014) – one that may lead to formal university enrolment in a course\(^1\) with the host institute (Howarth et al., 2016). Positioning MOOCs in this way could allow them to become financially sustainable, a goal which has eluded providers to date (Sandeen, 2015).

1.2 Research Focus

Formally, this thesis investigates the educational goals of MOOC participants and how they might change or develop as a result of interaction with a given Massive Open Online Course, particularly with respect to future university enrolment. For those individuals who do create a later goal for university study, the impact of both MOOC participation and their previous educational experiences on their consideration and choice processes when selecting an academic provider is also investigated. To achieve these outcomes, the focus is on the following questions:

1. What goals do participants seek to satisfy when they enrol in a MOOC? Which of these goals are focal (primary) and which are secondary (background goals)?
2. Do the focal and background goals of MOOC participants make MOOC enrolment preferable to university enrolment; and if so, why?

\(^1\) Within this thesis, MOOCs are referred to (as suggested by their acronym) as courses. When speaking of a university course, the author uses terminology appropriate to his own institution (Charles Sturt University), where a course refers to the overarching program of study, and a subject refers to the individual units of study that comprise the course.
3. What is the effect of MOOC completion on participants’ goal intentions to enrol in a university course?
4. For those MOOC participants who express a new or enhanced goal intention for university enrolment, is this accompanied by a change in their focal and background goals and/or their approach to learning?
5. Can a marketing appeal that occurs as part of the MOOC influence participants’ goal intentions for university enrolment or the choice of a university provider?
6. Can satisfaction with the MOOC experience influence the consideration process when choosing a university provider?
7. Do the previous educational experiences of MOOC participants influence their formation of the consideration set of university providers?

1.3 Key Research Theories

The research questions presented above were suggested by the literature on MOOCs, goal theory, and consumer decision-making, as well as by the metaphor of goal and consumer journeys in which the main objective is reached through a series of intervening goals and product interactions (Epp & Price, 2011). In particular, this thesis draws on theories involving goal setting and pursuit (Gollwitzer, 2012; Koo & Fishbach, 2010; Locke & Latham, 2006; Oettingen & Gollwitzer, 2007), multifinal goal behaviour (Chun, Kruglanski, Sleeth-Keppler, & Friedman, 2011; Kopetz, Faber, Fishbach, & Kruglanski, 2011; Kruglanski et al., 2013), the link between goals and consumer behaviour (Bagozzi & Dholakia, 1999; Paulssen & Bagozzi, 2005), and the shortlisting and selection of products and services through the use of consideration sets (Hauser, 2014; Hauser, Ding, & Gaskin, 2009). Theories around the promotion of products and services via a free testing process are also considered (Anderson, 2009; Cheng & Tang, 2010; Howarth et al., 2016; Schmitt, 2012).

1.4 Research Methodology

The approach taken in this thesis involves a mixed-method study of those enrolled in several MOOCs offered through Charles Sturt University (CSU), Australia. This was done through the use of a qualitative study involving individual interviews with participants (Chapters 6-7) followed by a quantitative-based survey of a larger cohort (Chapter 9-10).
The research objectives above were expressed as propositions for use within the qualitative study before being refined as hypotheses for testing within the quantitative study. A mixed methodological approach was chosen to allow an exploration of the problem space through interviews with participants. Such an approach allowed the findings from the qualitative study to inform the construction of more precise hypotheses for testing against a larger cohort of participants. The link between propositions and the outcomes of the qualitative study with the research hypotheses is provided in Chapter 8.

1.5 Theoretical Significance

Although several researchers (e.g., Christensen et al., 2013; Jordan, 2014; Marcus, 2013; Youngman, 2013) have examined the goals of MOOC students at the time of their enrolment, the impact of the MOOC experience on their subsequent ambitions has been largely ignored. Moreover, previous studies have tended to aggregate all participants’ goals in their reporting, without considering those held by specific individuals. As a consequence, little insight is given into how individuals use MOOCs as part of their ongoing goal-directed behaviour, particularly with regard to their future academic ambitions, or how the MOOC experience may affect such ambitions. The current work redresses this gap by investigating under what conditions a MOOC experience might lead to a new or revised academic goal, one that may involve university study with the host institute. Such an approach builds upon existing theories of goal-oriented and consumer behaviour, including the connection between goals and consumption.

Two of the main points of investigation in this thesis concern the factors likely to prompt a modification to MOOC students’ goals or goal pathways, as well as the consumer implications of such a change. As a theoretical basis for this, the literature shows that goal changes may occur because an individual, having achieved a given objective, might then aim for a related yet more ambitious target (Locke & Latham, 2002). This is known as climbing the goal ladder (Koo & Fishbach, 2010). Within the current work, this theory is used to support the assertion that those who successfully complete a MOOC are more likely to create a new (or enhanced) goal for university study than those who fail to finish.

A change in goal-oriented behaviours might also be due to increased understanding about
the pathways likely to lead to one’s overarching objective (Fishbach et al., 2009; Gollwitzer et al., 2004; Oettingen & Gollwitzer, 2007). Increased knowledge about optimal goal pathways may occur through an individual’s previous goal-striving experiences, as well as through exposure to the different available pathways for reaching a goal (e.g., through the use of marketing and promotional material). Both these goal-theoretic areas inform the current research – in particular, through propositions and hypotheses that deal with the impact of MOOC satisfaction and the efficacy of marketing and information sessions on participants’ later consideration of alternate educational pathways (such as university).

The potentially fluid nature of MOOC students’ goals is another key theme of this research. This is consistent with the literature on the nature of goal pursuit, which has been likened to a journey (Epp & Price, 2011). As with physical journeys, goal-related journeys may be prepared in advance with more or less precision; they may also evolve in unexpected ways, as well as influence the choice of later journeys and destinations. Accordingly, the author also examines how the current and future goals of individuals enrolled in a MOOC may either persist or change after interaction with their course.

Goals and goal pursuit may also involve the use of consumer products and services (Bagozzi & Dholakia, 1999); for this reason, the impact of the MOOC experience on participants’ choice of a specific university for enrolment is also investigated. This approach is supported by the literature on brand consideration and choice. It is also supported by the literature on free product sampling – a process that leads to greater product awareness, making selection more likely (Cheng & Tang, 2010; Lee & Tan, 2013; Schmitt, 2012). While sampling higher education through a free course has been previously offered as a beneficial marketing strategy (Howarth et al., 2016; Howarth, D’Alessandro, Johnson, & White, 2017; Pentina & Neeley, 2007) no study has fully tested this approach.

1.6 Practical Significance

The knowledge gained from this research may help educational institutions to better understand why individuals take Massive Open Online Courses, and to learn more about the impact of MOOC study on participants’ subsequent academic goals and study preferences. This knowledge may then be used to encourage more people traversing a MOOC pathway to
undertake tertiary study, an outcome likely to assist the MOOC initiative become financially sustainable.

Notwithstanding these benefits, an obvious objection may be raised concerning the need for such research; namely, if MOOCs are indeed such a likely conduit into university, why do so few institutions report this benefit? The author contends that there are three main reasons for this. As an overall justification for the research that follows, these arguments are summarised below.

The first reason why MOOCs have so far failed to deliver the branding benefits promised might be due to a misalignment between the qualifications of those enrolled and potential follow-on university programs. Most MOOC participants are qualified at the bachelor level (Carr, 2013; Christensen et al., 2013; Ho et al., 2015; Sandeen, 2015); yet, in spite of this, a large number of MOOCs focus only on bachelor level content, with several also promoted as a pathway into bachelor programs (e.g., see Kolowich, 2013b). Such a strategy has so far not succeeded, perhaps because many MOOC participants are unwilling to embark on further tertiary study that is at the same level as their current qualification.

The second reason is that several institutions have tended to rely on a MOOC-to-university pathway that involves conversion from an online MOOC to an on-campus university course (e.g., see Kolowich, 2013b). Perhaps unsurprisingly, this has not resonated with participants, many of whom are adult learners with existing careers (Christensen et al., 2013). Using MOOCs to sell on-campus enrolment also runs counter to the findings of the software industry, in which (free) trial software has been shown to act as a greater incentive for purchase only when its fundamental features align with those contained in the premium (paid) version (Wagner, Benlian, & Hess, 2014). Indeed, in the few places where conversion statistics between MOOCs and online university courses are reported, the results show promise (Tirthali, 2016).

The third reason why we may not have seen a significant transition of students from MOOCs to university is that the former is only a recent educational phenomenon, and “substantial time often elapses between the time consumers recognize the need for a product and the time they actually purchase it” (Greenleaf & Lehmann, 1995, p. 186). Hence, for those MOOC
students considering later tertiary study – which in Australia can typically cost between A$15,000 and A$30,000 (Norton & Cherastidtham, 2015) – there may be considerable delay between the stages of course completion and subsequent university enrolment. This phenomenon of delayed purchasing behaviour also creates a problem when seeking to measure the effect of MOOCs on later university demand.

1.7 Scope and Limitations

Each of the MOOCs selected for investigation as part of this thesis were intended as a possible entry point into online postgraduate courses with the host university. This approach has allowed the research questions (see §1.2) to be tested under conditions where the MOOC-to-university pathway promises a consistent delivery experience (online), and where the target university courses are at an appropriate level (postgraduate). This focus on postgraduate-oriented MOOCs is particularly salient given the forecast growth of the postgraduate educational segment over the next 5 years (Markets and Markets, 2018).

Rather than tracking actual MOOC-to-university conversions, the approach taken in this thesis involves measuring the strength of participants’ university enrolment intentions, both from a pre and post-MOOC perspective. Since purchase intentions are often used as an indicator of actual purchasing behaviour (Morwitz, Steckel, & Gupta, 2007), this method offers an advantage over conversion tracking for a study that is necessarily limited by time.

One of the possible limitations of this research relates to the MOOCs under investigation. These MOOCs were run on a bespoke rather than a commercial platform, and were structured around live webinar lectures with a particular institution. Given this scope, it is not clear whether the results obtained here will hold for more traditional MOOC formats. Notwithstanding this, it is noted in the next chapter (§2.2) that there is no uniform definition of a standard MOOC, so such a limitation is likely to hold for applied MOOC research in general.

1.8 Thesis Structure

This thesis is structured as follows. Chapter 2 gives an overview of Massive Open Online Courses, including an appraisal of their success in helping both students as well as the
institutions which offer them to achieve their goals. The literature on goal theory and consumer decision-making is reviewed in Chapters 3 and 4, with an emphasis on understanding these areas from a MOOC-to-university perspective. These chapters (2-4) form the conceptual basis of the thesis.

In Chapter 5 several propositions relating to the research objectives of the thesis are given. These propositions have been suggested by the literature on MOOCs, goal theory and consumer behaviour, and were used to guide the direction of the qualitative study of MOOC participants, which is described in Chapter 6. The key findings from this study are discussed in Chapter 7.

This thesis uses a mixed research methods approach that involves a longitudinal, quantitative survey of MOOC participants, in addition to the qualitative case study. In Chapter 8, the research hypotheses tested within the quantitative study are introduced and linked with the earlier propositions of the thesis. Chapter 9 then discusses the quantitative methodology used, with the results reported in Chapter 10. Finally, Chapter 11 summarises the findings of the thesis by drawing on results from both the qualitative and quantitative studies, and offers suggestions for further research that may continue to advance the use of MOOCs as a pathway into higher education.
CHAPTER 2
Massive Open Online Courses (MOOCs)

2.1 Introduction

Massive Open Online Courses emerged as a popular educational technology in 2012, a year in which they were offered by “18 of the top 20 universities in North America” (Bean, 2013). That same year saw the birth of the first MOOC providers, Udacity, Coursera, and edX – companies established to promote, host, and manage the delivery of these courses (El Ahrache, Badir, Tabaa, & Medouri, 2013). Of yet greater significance was the demand for these early MOOCs, with Jordan (2014) noting median enrolments of over 42,000 per course. While online education was hardly new, and even the MOOC acronym itself had previously been applied to a number of smaller, Internet-based courses (Rodriguez, 2012), it was in 2012 when the institutional support, instructional format and technology all aligned “to allow online classes of that size on a global basis” (Hyman, 2012, p. 20).

Encouraged by this early success, commentators soon made bold claims about the new technology (Economist, 2012; Friedman, 2013). MOOCs were seen (among other things) as a solution to the affordability crisis that had begun to trouble American higher education (Sandeen, 2013), as a way of providing global access to tertiary learning (Friedman, 2013), and even as the digital disruptor of the entire higher education industry (Economist, 2012). Most such claims, however, did not stand up to closer scrutiny. Instead, reports soon emerged that MOOCs were plagued by high attrition rates, poor design elements, the use of unimaginative pedagogies (Yuan & Powell, 2013), and an overall lack of student diversity (Sandeen, 2013). Moreover, they were offered for free, with no viable business model to make them sustainable (Christensen et al., 2013).

This failure to live up to the early hype prompted changes to the MOOC format, which was thereafter modified to achieve the institutional and commercial goals of some who offered them (Ronkowitz & Ronkowitz, 2015). In this way, MOOCs soon became “disaggregated and hybridized into different forms” (Sandeen, 2014, para.2). This means that there is no single entity called a MOOC, a term which has been used to embrace a number of different online
course designs. This evolution of MOOCs is charted in the opening sections of this chapter, from first beginnings to their subsequent fragmentation into more specialised course types.

While a clear guiding purpose was not always apparent in the early use of MOOCs (Daniel, 2012), more recent surveys of higher education providers have revealed several common strategies (Hollands & Tirthali, 2014b). These include using MOOCs to reach a broader educational audience and as an additional source of institutional revenue. This chapter contains a summary of these goals along with an appraisal of their success, as measured against the latest research on participant demographics, completion rates, and MOOC economics.

Increasingly, one of the more common reasons for offering MOOCs has been to promote the universities who typically design and run them (Billsberry, 2013; Hollands & Tirthali, 2014b; Howarth et al., 2016; New, 2014; Tirthali, 2016). However, while multiple institutions have adopted this tactic, there is no consensus on the effectiveness of such a strategy (Karsenti, 2013; New, 2014; Sandeen, 2015). While comprehensive data about the branding benefits of MOOCs is lacking (Belleflamme & Jacqmin, 2016; Fischer, 2014; Sandeen, 2015), there are isolated cases of institutions reporting flow-on enrolments into their fee-paying courses (Karsenti, 2013; Tirthali, 2016). Within this chapter, these observations are used to promote the idea of MOOCs as a possible pathway into higher education through university enrolment.

Any study focusing on the potential of MOOCs as a conduit into university also needs to investigate the reasons why individuals currently enroll in them. To this end, the reported goals of MOOC students are discussed. Using MOOCs as a pathway into university, possibly with the host institute, requires a more holistic and long-term examination of participants’ goals than currently appears in the literature. Thus, the chapter closes with a discussion about goal and consumption journeys, and argues that such journeys are likely to form the link between MOOCs and future university selection.

This chapter is arranged as follows. First, the evolution of MOOCs is reviewed, from their inception to the present day. Next a discussion on the relationship between universities and MOOCs is presented. This is followed by a summary of the reasons why higher education institutes typically offer MOOCs. The success of these institutional objectives is then
measured against empirical findings from the literature. Following this, arguments are given in support of the untapped potential of MOOCs to encourage participants to undertake later fee-paying study with the universities who design and run them. Finally, a summary of findings from the literature on goal and consumer theory is given in support of this MOOC-to-higher education pathway.

2.2 The Evolution of MOOCs

While free, online, university-affiliated courses may be classified under the MOOC acronym there is, in fact, limited agreement about the core design, delivery, and pedagogical elements of a standard MOOC (Bayne & Ross, 2014; Gaebel, 2014; Hollands & Tirthali, 2014a; Siemens, 2012). This lack of consensus is supported by the range of MOOCs that currently exist, which include cMOOCs (constructivist MOOCs), xMOOCs\(^2\), as well as specialist derivatives such as SPOCs (Small Private Online Courses) and SMOCs (Synchronous Massive Online Courses). To categorise these different variants, several distinct eras (MOOC 1.0, 2.0, and 3.0) have been proposed (Sandeen, 2013, 2015). However, since the use of MOOC version numbers is both imprecise as well as inconsistently applied throughout the literature (Moe, 2015b), the approach taken here is to summarise the main course types from their inception through to the present day.

In discussing their evolution, it should be noted that the earlier-style courses (such as cMOOCs) continue to co-exist with those appearing later (such as SPOCs). Further, while the discussion here concerns only Massive Open Online Courses, it should be noted that the phenomenon itself is not ahistorical, having roots in earlier online learning initiatives from providers such as the Open University in Britain and the Massachusetts Institute of Technology (Daniel, 2012; McAndrew & Scanlon, 2013; Yuan & Powell, 2013), extending back through to earlier televised public lectures (Grimmelmann, 2014) and correspondence courses (Moe, 2015a).

\(^2\) It has been suggested that the ‘x’ in xMOOC stands for ‘extension’, based on the fact that MOOCs are typically an extension of the core offerings of the associated university provider (Liyanagunawardena, 2014).
2.2.1 cMOOCs

Notwithstanding these precursors, the first MOOC commenced in 2008 with the running of an online course used to both discuss and implement the learning theory of *Connectivism* (Cormier & Siemens, 2010; Daniel, 2012; Siemens, 2005). This course, named *Connectivism and Connective Knowledge (CCK08)*, attracted 24 fee-paying participants, as well as 2,200 learners who enrolled at no cost, and without any expectation of college credit (Siemens, 2013). This inaugural MOOC has come to represent the strain of cMOOCs – online courses based on the Connectivist philosophy.

Connectivism describes a style of learning suited to technology-rich environments, one in which “know-how and know-what is being supplemented with know-where (the understanding of where to find knowledge needed)” (Siemens, 2005, p. 4). Since information increasingly resides within communication networks, the ability to navigate such networks and to form connections between information resources and other learners is critical (Downes, 2008). These elements, along with the use of open educational resources, represent the core tenets of Connectivism (Downes, 2008; Mackness, Mak, & Williams, 2010; Siemens, 2005, 2013).

The theory itself was tested using *CCK08*, an Internet-based course that used technologies such as blogs, RSS feeds, online meetings, and discussion boards to link course participants with each other and to information about the course topic. This strategy allowed participants to “make their own choices what they read” so that they could bring “unique perspectives ... to the conversation” (Downes, 2008). However, while cMOOCs were lauded as innovative, the thought of disrupting the traditional university business model was not a stated goal of the movement (Porter, 2015a). Such disruption was, however, the express aim of the next wave of MOOCs.

2.2.2 xMOOCs

After cMOOCs, the next major stage in MOOC development occurred in 2011 when several professors from Stanford University gave free access to their online courses on *Artificial Intelligence* and *Machine Learning* – a move which led to an influx of enrolments from 190
countries (Rodriguez, 2012). Encouraged by this success, members of the Stanford group went on to create the Udacity and Coursera platforms. These developments heralded the start of a new MOOC era (Sandeen, 2013, 2015). Courses from this phase were termed xMOOCs, and characterised by massive enrolments, traditional pedagogical approaches, and the use of proprietary platforms that were often funded by venture capital or institutional endowment (Dellarocas & Van Alstyne, 2013; Moe, 2016).

These xMOOCs, with their focus on video presentations, standard lecture formats, and conventional testing, were less pedagogically ground-breaking than cMOOCs (Yuan & Powell, 2013). Rather, as noted by Ng and Widom (2014), “Online education has been around for decades ... what changed in 2011 was scale and availability” (p. 34). This increase in scale became readily apparent to the early MOOC adopters. As an example, by offering MOOCs Vanderbilt University managed in a period of just 8 months to double the number of students it typically taught (Schmidt & McCormick, 2013). Facts like this attracted wide and sometimes sensationalist coverage from the mainstream press, which in turn prompted more universities to adopt their own online education strategies (Bulfin, Pangrazio, & Selwyn, 2014; Lewin, 2013a).

While the first wave of xMOOCs and their associated platforms encouraged many observers to view the movement as a disruptive force (Waldrop, 2013), concerns soon emerged about the extreme levels of student attrition (Allione & Stein, 2014; Gütl, Rizzardini, Chang, & Morales, 2014; Onah, Sinclair, & Boyatt, 2014), about the pedagogical shortcomings of the xMOOC format (Bali, 2014; McAndrew & Scanlon, 2013; Siemens, 2012), and about the high cost of course production, low investment returns, and the absence of valid business models (Altbach, 2014; Fischer et al., 2014; Gaebel, 2014; Hollands & Tirthali, 2014a; New, 2014; Sandeen, 2015). Further, as more institutions began to offer MOOCs, the average cohort size declined, with the earlier six-figure enrolments decreasing as a result of greater competition (Jordan, 2014). These and similar facts caused the xMOOC moniker to be increasingly regarded as a pejorative term (Moe, 2015a). Despite these issues, however, MOOCs continued to evolve. The next phase of development introduced more specialised courses, as well as hybrid MOOCs that combined face-to-face with online elements (Hollands & Tirthali, 2014a; Saltzman, 2014; Sandeen, 2013).
2.2.3 MOOC Derivatives and Hybrids

The emergence of MOOC derivatives came about in response to earlier shortcomings – in particular, over the inability of universities and MOOC providers to capitalise either financially or pedagogically on the potential of the xMOOC phenomenon. Thus, MOOCs of this type focused on closer integration with university courses and processes (Sandeen, 2015). Further, this attempt by universities to assimilate aspects of the MOOC model led to softened perceptions of any competitive threat (Jacoby, 2014). Examples of this type of assimilation include the use of MOOCs to blend online learning elements into traditional classrooms (Bogdan, Bicen, & Holotescu, 2017; Israel, 2015), and increased recognition of MOOC credentials for university course entry and credit (Ong & Grigoryan, 2015).

This period also saw the emergence of more specialist course designs, many with their own acronym. These included SPOCs and SMOCs (Hollands & Tirthali, 2014a; Sandeen, 2015). SPOCs are closed online courses with a formal enrolment process that is used to restrict numbers (Kaplan & Haenlein, 2016), while SMOCs share the same commitment to ‘massiveness’ as traditional MOOCs but are also designed to facilitate real-time (rather than asynchronous) interaction (Kaplan, 2017). Many other MOOC variants have been noted, including DOCCs (Distributed Open Collaborative Courses), SSOCs (Synchronous Small Online Courses) and LOOCs (Little Open Online Courses) (Chauhan, 2014; Hollands & Tirthali, 2014a; Kaplan, 2017).

MOOCs continue to be a “quickly moving target” (Gaebel, 2014, p. 3). The recent emergence of micro-credential courses offering nanodegrees and micro-masters are testimony to this (Milligan & Kennedy, 2017). Micro-credentials are discrete learning modules that can serve as a workplace credential, or as a credit or entry pathway into traditional tertiary study. Micro-credentials can also be combined into a broader academic qualification tailored to the learner’s needs (Mischewski, 2017). While the number of MOOC providers offering these micro-credentials is increasing, the overall concept is still in its infancy, with a number of challenges to be overcome before achieving widespread acceptance (Caudill, 2017).
2.3 MOOCs and University

The narrative above suggests that the relationship between MOOCs and universities may range from competitive through to cooperative. One of the first to raise the competitive argument was Udacity founder Sebastian Thrun who, at the outset of the xMOOC era, predicted that only ten of the world’s universities would eventually remain, perhaps with Udacity as one of them (Economist, 2012). The emergence of MOOC credentialing also increased the fear of direct competition (Young, 2013). A decision by Georgia Tech to offer a MOOC-based master’s degree in computer science, at a fraction of its on-campus cost, did nothing to allay such concerns (Lewin, 2013b). This competitive mindset was likewise apparent in a 2013 survey of American college and university administrators, 47% of whom (from a sample of 1081) saw MOOCs as a threat to their business model (Jaschik & Lederman, 2013).

Over time, however, the tenor of this relationship has moved towards greater integration, with MOOCs representing “simply an additional learning opportunity that the community is still trying to understand and effectively leverage, instead of a direct challenge to higher education itself” (Kiers, 2016, p. 140). The types of leverage that Higher Education Institutes (HEIs) seek from MOOCs is perhaps best understood by their reasons for offering them. A study by Hollands and Tirthali (2014b) involving 62 HEIs, mostly from the United States, found their main goals to be:

- Improving educational access
- Promoting their educational brand
- Increasing institutional revenues
- Improving educational outcomes for students
- Creating an environment where innovation into teaching and learning can flourish
- Using MOOCs to conduct research into learning and teaching

These findings are supported by numerous other studies. For example, the goal of using MOOCs to reach a wider audience, including students from non-traditional backgrounds, has been noted by researchers and policymakers from Australia (Low, 2013), Europe (Jansen & Schuwer, 2015), India (Nath, Karmakar, & Karmakar, 2014), and Malaysia (Mat-jizat,
Samsudin, & Yahaya, 2014). Using MOOCs to showcase the university brand has likewise been cited as a widespread institutional objective (Aparicio et al., 2014; Billsberry, 2013; New, 2014; Porter, 2015b; Sandeen, 2015; Tirthali, 2016), one that allows people to “taste what is available, getting them familiar with higher learning, so they can build the confidence to go into further study” (Counihan, 2013, para.5). Similarly, direct revenue generation and improved cost efficiencies are frequently noted as core objectives (Saltzman, 2014). Other goals from the Hollands and Tirthali (2014b) study – such as using MOOCs to improve the quality of learning and teaching or as a source of research analytics – appear elsewhere as motivations for involvement (e.g., Jansen & Schuwer, 2015; Kay, Reimann, Diebold, & Kummerfeld, 2013).

But how are MOOCs tracking when measured against these and similar objectives? In the sections which follow, the success of institutions in achieving such goals is examined alongside what is currently known about MOOC demographics, course completion rates, and economic considerations. It will be seen that, while there are diverging views concerning the success of MOOCs, there is nonetheless broad consensus on one key point; namely, that the lack of a viable business model is a threat to their sustainability. In this regard, the branding influence of MOOCs – an area relatively unstudied – may offer new hope to both platform and content providers alike over the future of this technology.

2.4 Student Profile

One of the key measures for judging MOOC success against institutional objectives is the makeup of the student profile. While there is considerable variation in the types of people who take MOOCs, the most dominant observation is that of a “white, college-educated employed male in his mid-20s to 30s” (Glass et al., 2016, p. 44). This characterisation has remained largely consistent ever since the launch of xMOOCs in 2011, and is supported by the work of several researchers across multiple platforms (Christensen et al., 2013; Ho et al., 2015; Liyanagunawardena, Lundqvist, & Williams, 2015; Schmidt & McCormick, 2013; Youngman, 2013). While agreeing with most aspects of this standard profile, others note that gender participation is largely dependent on course topic, with higher female enrolments more likely in non-STEM (science, technology, engineering and mathematics) based courses (Hennis, Skrypnyk, & De Vries, 2015). Notwithstanding this difference, researchers generally
concur that the leading demographic for MOOCs is similar to the one which currently dominates enrolments at traditional universities, particularly in advanced Western countries such as the United States (Altbach, 2014; Glass et al., 2016; Koutropoulos & Zaharias, 2015).

Does this mean that institutions have failed in their quest to reach non-traditional academic audiences via MOOCs? While multiple authors have suggested so (Meisenhelder, 2013; Norman, Lockyer, & Bennett, 2015; Schulmeister, 2014), others report significant course participation (in terms of raw enrolments) by those from less privileged backgrounds. Hence, while those without tertiary qualifications may not represent the main demographic for MOOCs, it remains the case that “seemingly small percentages of registrants with low educational attainment can be a large number [of students]” (Ho et al., 2015, p. 19). Given this observation, and the fact that the MOOC experiment is still relatively new, the author concurs with Glass et al. (2016) that “although dramatic gains in access have failed to materialize, it is simply premature to conclude that MOOCs will not live up to their promise to provide a truly world-class education to anyone with an Internet connection” (p. 42).

2.5 Completion

The completion rate of a MOOC, as traditionally defined, represents the percentage of enrolled students who passed the course or earned a certificate; the attrition or dropout rate is the percentage of those who don’t complete (Reich, 2014). Completion rates between 2 and 10 percent, and dropout rates of about 90 percent, are cited as typical (Jordan, 2014; Reich, 2014; Rivard, 2013; Voss, 2013). These statistics reveal what is seen as the Achilles heel of the MOOC initiative (Clow, 2013; Dalipi, Yayilgan, Imran, & Kastrati, 2016; Meisenhelder, 2013; Voss, 2013) and appear to contradict their use as a valid approach for improving educational outcomes (Tirthali, 2016).

Poor completion rates also undermine several other institutional goals for offering MOOCs – in particular, the objective of broadening access to higher learning. As noted by Meisenhelder (2013): “For access to be meaningful ... students must have a real chance, if they work hard, to succeed in getting a quality education” (p. 13). The average completion rates cited above suggest that many who enrol don’t get this opportunity. For disadvantaged students, the chances of completing are lower still (Reich, 2014), in part because the learning and teaching
environments provided in MOOCs are generally aimed at those with college-level experience (DeBoer et al.; Hennis et al., 2015; Shrader, Wu, Owens-Nicholson, & Santa Ana, 2016). Facts like these have tended to reinforce the view that many of the earlier, more bullish, claims about MOOCs amount to nothing more than oversell (Popenici, 2015).

But as with nearly all MOOC statistics it is possible to interpret them less bleakly. Thus, it has been argued that completion rates are themselves misleading since many who enrol have no serious intention of engaging (Koller, Ng, Do, & Chen, 2013), sometimes dropping out before the course starts (Kevat, 2014). In addition, there are others who commence a MOOC only to access specific content (Ronkowitz, 2013; Zheng et al., 2014). For these reasons, completion statistics may be viewed as “baseline numbers which include registrations by people who never engage with the course or who engage in their own way but without completing assessments” (Onah et al., 2014, p. 5833).

Indeed, when these baseline numbers are examined alongside student intentions, a different story presents itself. A study conducted on the HarvardX platform reported a 22 percent completion rate (from a sample size of 79,525) by considering only those whose main objective at the outset was to finish their course (Reich, 2014). This is further supported by research from Liyanagunawardena, Parslow, and Williams (2014), who found that many MOOC students did not consider the action of dropping out to signify a failure to reach the formal end of their course, so much as a failure to realise their own objectives for enrolling in the first place.

Clearly more work needs to be done to improve retention in MOOCs; however, given the significant level of research now focused on this area (e.g., Khalil & Ebner, 2014; Sharkey & Sanders, 2014; Vilitiello, Walk, Hernandez, Helic, & Gutl, 2016), and the fact that raw completion rates are increasingly viewed as an over-simplistic measure (Ho et al., 2015; Koller et al., 2013; Liyanagunawardena, Parslow, et al., 2014; Reich, 2014; Zheng et al., 2014), it is almost certainly premature to announce the failure of MOOCs on the basis of this metric alone (Glass et al., 2016).
2.6 Economics

In discussing MOOC economics, it is important to first distinguish between the revenue that is generated by platform providers (such as Coursera) and that which is earned by the course content owners (typically universities). In some cases, these entities are the same (Porter, 2015a). Where this is not the case, a certain percentage of platform revenue is returned to the content owner in accordance with their specific commercial agreement (Porter, 2015a, 2015b). Notwithstanding this distinction, a strong consensus exists regarding the inability of MOOCs to generate enough income to remain sustainable – either for the platform providers or the universities which use them (e.g., see Dellarocas & Van Alstyne, 2013; Hollands & Tirthali, 2014a; Porter, 2015a; Rodriguez, 2013; Sandeen, 2015).

The major MOOC platforms themselves first launched with the support of start-up investments, often from venture capitalists (Dellarocas & Van Alstyne, 2013; Moe, 2016). Coursera, for example, was initially launched with the help of $22 million in venture capital, Udacity through speculative funding of over $21 million, and edX with the support of $60 million in resources from its institutional founders, Harvard University and MIT (Yuan & Powell, 2013). And yet despite such seed funding, and the subsequent massive enrolments, there is no compelling evidence that the MOOC phenomenon can survive “beyond the initial injection of speculative investment” (Porter, 2015a, p. 52).

The imperative to come up with an effective business model becomes even more evident when the cost of course design is taken into account. Hollands and Tirthali (2014) report on a survey of four institutions where course development costs range from $38,000 to $325,000. For specific institutions, the University of California Berkeley give a cost per MOOC of between $50,000 and $100,000 (Altbach, 2014), while at the lower end of the scale Stanton and Harkness (2014) cite a figure of $28,275 for MOOCs associated with a small, non-profit US-based higher-education institute.

To recoup such costs in the absence of course enrolment fees, numerous attempts have been made to integrate revenue-generating products and services. This includes payments for certifications, for add-ons such as employee matching, and for platform services (Sandeen, 2015). There is limited evidence, however, to support the success of these or similar initiatives
(Belleflamme & Jacqmin, 2016; Fischer, 2014; Sandeen, 2015). But while several analyses (e.g., Jia, Song, Bai, & Xu, 2017; Porter, 2015a; Sandeen, 2015) have focused on the direct revenue earned via MOOCs (such as through certification charges), less is known about the indirect benefits, such as revenue generated as a result of fee-paying enrolments prompted by exposure to the university brand.

2.7 Branding

As noted above, the strategy of brand exposure is a key reason for offering MOOCs (Aparicio et al., 2014; Billsberry, 2013; New, 2014; Tirthali, 2016). This strategy recognises that “marketing is major part of the continued success of higher education” (Moe, 2015b, p. 1042) and that MOOCs are well-suited to showcasing an institution’s course design, teaching, and delivery capabilities, in addition to creating an appetite for further education (Howarth et al., 2016).

Despite this, some authors have expressed scepticism about the branding power of MOOCs, including their use as a conduit into university. Sandeen (2015), for example, has commented that “for various reasons...few current MOOC students are active degree seekers” (p. 15). The same author goes on to note that most MOOC participants are degree-qualified and thus “not enrolling...for further degree attainment” (Sandeen, 2015, p. 15). This argument is consistent with at least one high-profile report on MOOC credit, which resulted in a poor uptake into corresponding university programs (Kolowich, 2013b).

Other research, however, suggests that a MOOC-to-university pathway is worth taking seriously. Karsenti (2013), for example, reports that after successful completion of a MOOC, participants often look favourably on the host institute, with a number considering enrolment. More recently, the ULIP (University of London International Programmes) reported that 142 students who did their MOOCs in 2013-14 went on to enrol in one of their fee-paying distance programs, a number that increased to 155 in 2014-15 (Tirthali, 2016). In addition, the observation that most MOOC students identify as continual learners (Yuan & Powell, 2013) is entirely consistent with the notion that they might later enrol into a fee-paying course with the host university. Similarly, from a MOOC perspective, Ho et al. (2015), notes that 30% of HarvardX and MITx students undertook several courses with the same
provider in succession – further evidence that MOOC providers and the universities associated with them are capable of generating brand loyalty.

A key reason that individuals transition from a Massive Open Online Course to a fee-paying course with the host is likely to involve their satisfaction with the MOOC experience (Howarth et al., 2016; Karsenti, 2013; Tirthali, 2016). Some of the causes of potential MOOC satisfaction (and within e-learning environments generally) relate to the online format and digital technologies used (Manalo, 2014), the course content and structure (Cole, Shelley, & Swartz, 2014; Gameel, 2017; Moskal, Thompson, & Futch, 2015), and the overall effectiveness of the facilitator (Belanger & Thornton, 2013; Khalil & Ebner, 2014). Further, it has been shown that those who are satisfied with their educational experience are likely to encourage others to follow the same route (Shahijan, Rezaei, & Amin, 2016).

Notwithstanding these insights, few institutions are aware of the impact on their traditional course enrolments from those traversing a MOOC pathway (Hollands & Tirthali, 2014a). Thus, while multiple studies have researched topics such as MOOC demographics, completion rates, and even the reasons for enrolment, very few have examined the branding influence of MOOCs, despite the fact that “viable business models [are] one of the key challenges that they face, and will determine whether they continue to exist and to grow in the long term” (Porter, 2015a, p. 54). To examine any such influence, it is important to understand not only why people take MOOCs but also the effect of the experience on their future educational goals and choices.

2.8 MOOCs, Goals and Consumer Journeys

Several studies have focused on the reasons for MOOC enrolment. Carr (2013), for example, reports on a study by the survey firm Qualtrics, who polled nearly 700 individuals enrolled in a MOOC through the Canvas Network. The most frequently cited reasons for enrolment were the MOOC topic (76%), the fact that the course was free (75%), professional development (61%), and curiosity about the MOOC concept (44%). These findings were broadly corroborated by Zheng et al. (2014) who found that the main motivations were to fulfill current educational or professional needs, prepare for the future, satisfy curiosity, or create social connections.
However, while these and other researchers (e.g., Jordan, 2014; Youngman, 2013) have examined MOOC students’ goals at the outset of their course, they have not examined the impact of MOOC participation on subsequent goal-setting behaviour. Such a longer-term perspective is important for establishing the branding influence of MOOCs, since the reasons individuals give for enrolment at the outset may, in fact, represent only the starting point in a longer goal-directed journey (Epp & Price, 2011).

Goals and goal journeys may also involve the use of products and services (Bagozzi & Dholakia, 1999). When choosing a brand, the consumer will often do so with reference to a particular goal or set of goals (Van Osselaer & Janiszewski, 2012). Further, the consumption process may lead to the adoption of new or amended goals, and new products to satisfy those goals (Brandstätter et al., 2003; Oettingen & Gollwitzer, 2007). Thus, as with goals and goal-related journeys, individuals may also embark on a consumer journey (Richardson, 2010; Riivits-Arkonsuo, Kaljund, & Leppiman, 2014; Wolny & Charoensuksai, 2014).

Consumer journeys do not always involve consumption alone; they may also impact on later decision-making (Wolny & Charoensuksai, 2014). This is because while consideration of a product typically precedes choice (Shocker, Ben-Akiva, Boccara, & Nedungadi, 1991), the use of a product or service may also influence future brand consideration (Paulssen & Bagozzi, 2005). Within a MOOC context, this observation is supported by research about the favourable attitude of participants towards the host institution after a positive MOOC experience (Karsenti, 2013; Tirthali, 2016). It is also consistent with the concept of free product sampling, a technique that has been successfully employed across different consumption domains as a purchase incentive (Cheng & Tang, 2010; Lee & Tan, 2013; Schmitt, 2012). A sampler strategy, applied in an educational setting, could allow MOOCs to become financially sustainable – a goal keenly sought after but so far unrealised (Dellarocas & Van Alstyne, 2013; Matkin, 2013; Sandeen, 2013; Yuan & Powell, 2013).

### 2.9 Conclusion

In this chapter, the evolution of MOOCs was considered, from their commencement to the present day. The MOOC acronym encompasses a broad range of different course types, including cMOOCs and xMOOCs, which were likewise discussed. The relationship between
higher education institutes and MOOCs was also examined. Increasingly, HEIs use MOOCs to complement their own teaching and research activities, to expand educational access, generate additional revenues, and to promote their brand. The success of these goals and the MOOC initiative overall was appraised against findings from the literature on demographics, completion rates, and economic considerations.

While the literature offers guarded support about the ability of MOOCs to achieve several of the institutional objectives noted above, the quest to make MOOCs commercially viable continues. The strategy of using MOOCs to promote the aligned university brand may function as an indirect method for generating revenue; however, no comprehensive research exists on the impact of MOOC engagement on participants’ future educational goals and study choices.

Notwithstanding this, some scholars have provided examples of how individuals may use MOOCs as a pathway into fee-paying courses with the aligned host institute. Similarly, there is theoretical support from the goal and consumer literature that MOOC study may represent just an isolated point on a longer goal and consumer-oriented journey – one that may influence the future educational direction of participants as well as their choice of an academic provider. These concepts are explored more deeply in the pages ahead, commencing with a discussion of goal theory in Chapter 3.
3.1 Introduction

In the last chapter the history of MOOCs was reviewed, along with their use by higher education providers for achieving institutional goals such as expanding educational access, generating revenue, and brand promotion. However, while MOOCs are often used to create awareness of the aligned university brand, little is currently understood about their effect on participants’ subsequent educational goals. To better understand this impact, and to learn how a new or enhanced goal for university study might emerge from a MOOC context, this chapter examines the literature on goals and the self-regulatory processes that occur during and after goal pursuit.

Goals themselves can be studied from either a structural or behavioural standpoint. The structural view describes how goals at different levels of abstraction interrelate to form a goal hierarchy (Bagozzi & Dholakia, 1999). At the top of the hierarchy sit the abstract, superordinate goals, which typically relate to an idealised version of the self (Carver & Scheier, 2001). Next come the focal goals; these are concrete goals through which the ideals of the superordinate goals are reached. Finally, at the base of the hierarchy are the task-oriented, subordinate goals, whose completion leads to the focal goals. Together these different goal types form a means-end chain that connect behaviours with goal-related outcomes (Bagozzi & Dholakia, 1999; Gutman, 1997; Pieters, Baumgartner, & Allen, 1995).

A key aspect of the goal pursuit process involves choosing the behaviours (or means) that will lead to goal attainment (Shah & Kruglanski, 2000). The pathways to a given goal may be equifinal, in which multiple behaviours lead to a single goal, or multifinal, where multiple goals connect to a single behavioural pathway (Kruglanski et al., 2002). A multifinal solution may be valued by those seeking additional background goals alongside their focal goal (Kopetz et al., 2011; Kruglanski et al., 2013). Where a multifinal means to a set of goals is sought, it often restricts the available choice of behaviours or products, since each goal brings with it additional requirements that must be satisfied (Kopetz et al., 2011).
The goal pursuit process can also be viewed from a behavioural standpoint that includes the stages of goal setting, goal striving, and evaluation (Oettingen & Gollwitzer, 2007). Individuals have more wishes and aspirations than they can achieve, and so must deliberate on their feasibility and desirability before turning the most suitable of them into a conscious goal (Gollwitzer, 1990, 2012). This deliberation stage may involve the resolution of goal conflict, in which competing wishes vie for goal status. Once a goal is chosen, an individual may then enter the implementation stage where a particular course of action is decided on, followed by the goal-striving stage, in which the behaviours necessary to reach the goal are implemented. Goal pursuit concludes with a final evaluation stage where the individual reflects on their goal attempt (Gollwitzer, 1990, 2012).

This evaluation stage, as well as the goal pursuit process itself, might prompt the emergence of new goals (Paulssen & Bagozzi, 2005; Shah, 2005). It may also encourage existing goals to be abandoned or to have their importance re-assessed (Kopetz et al., 2011; Kruglanski et al., 2013). Where new goals are formed, or a different emphasis applied to existing goals, new means for attaining them might also emerge (Shah, 2005). In this way, the pursuit of a goal may unfold like a journey (Landau, Oyserman, Keefer, & Smith, 2014).

New or revised goals may also cause different products to be selected (Paulssen & Bagozzi, 2005). Thus, the link between goals and consumption is also reviewed in this chapter. The concepts presented here will inform later propositions and hypotheses about the goals of MOOC participants and how these goals, and the pathways used to reach them, may evolve in response to MOOC engagement, potentially leading to university enrolment with a specific provider.

The chapter is organised as follows: First, an overview of the literature on goal pursuit is given. This includes a discussion of goals and their levels, as well as the various stages of goal pursuit. The different learning goals of students are then reported. Following this, the hierarchical relationships of the different goal types are explored, along with the structure of the means-goal link. Also discussed are the types of self-regulation that may occur during goal pursuit to manage issues such as goal conflict, in addition to the different behavioural processes and mindsets that occur enroute to goal achievement. The chapter ends with a discussion of the relationship between goal pursuit and consumption.
3.2 Overview of Goal Theory

Human action is purposefully directed and may be regulated by an individual’s goals (Locke, Shaw, Saari, & Latham, 1981). Broadly speaking, goals may be classified as either ‘be’ goals or ‘do’ goals (Carver & Scheier, 2001). ‘Be’ goals relate to some aspect of the ideal self (Carver & Scheier, 2001; Gollwitzer, 2012; Oettingen & Gollwitzer, 2007) or reflect well-being needs (Van Osselaer et al., 2005). Such higher-order goals determine the contents of the lower-order ‘do’ goals, which typically represent actions that must be completed to attain the high-level objectives (Oettingen & Gollwitzer, 2007; Shah, 2005). The goal of becoming a doctor, for instance, will require a tertiary degree, which requires admission into an appropriate university course, undergoing exams, and so on. These different goal types are often arranged hierarchically, as a means-end chain (Bagozzi & Dholakia, 1999; Gutman, 1997; Pieters et al., 1995).

Effective goal pursuit first involves goal setting (Gollwitzer, 1990). Setting a goal implies “discontent with one’s present condition and the desire to obtain an object or outcome” (Locke & Latham, 2006, p. 265). Goals are chosen on the basis of their feasibility (how likely it is to reach the goal) as well as their desirability (the perceived value of the goal) (Ajzen, 1985; Gollwitzer, Heckhausen, & Ratajczak, 1990; Oettingen & Gollwitzer, 2007). Successful goal pursuit may also involve self-efficacy considerations, since the individual must be confident that their chosen behaviours will lead to the desired outcome, and that they possess the skills and resources to perform these actions (Eccles & Wigfield, 2002).

Setting a goal does not ensure it will be acted upon (Gollwitzer, 1999; Locke et al., 1981); for this to occur, the individual must commit to their goal. Such commitment causes the goal in question to become active (Fishbach & Ferguson, 2007; Gollwitzer, 1990; Sheeran, Webb, & Gollwitzer, 2005). To achieve a goal also requires activity; hence, once a goal is activated, it will cause lower-level means (i.e., behaviours) to be identified through which the higher-level goal is reached (Shah & Kruglanski, 2000). In pursuing the means to a goal, individuals are also likely to engage in an ongoing assessment of their performance, leading to either continued pursuit or abandonment of their journey (Laran & Janiszewski, 2009).

The means to a particular goal might involve a single behaviour, a series of (possibly
interdependent) behaviours or, in a consumption context, the purchase of goods and services (Bagozzi & Dholakia, 1999; Paulssen & Bagozzi, 2005; Shah & Kruglanski, 2000). Moreover, there may be multiple behaviours that lead to a given goal (e.g., the goal of reaching one’s holiday destination might be achieved by air, bus, car, or train) or a single behaviour that leads to multiple goals (e.g., undertaking a MOOC might satisfy goals for personal development, curiosity, and conserving money) (Kopetz et al., 2011; Kruglanski et al., 2013; Kruglanski et al., 2002).

A key characteristic of goal-oriented behaviour is that the outcomes may be affected by external circumstances, including the actions of others. One example is achievement of a tertiary degree, which is “a goal-driven behavior subject to interference such as lack of ability, the intervention of outside forces, or both” (Bay & Daniel, 2003, p. 672). In other words, goals are subject to obstacles that must be overcome. Commitment to a specific goal assists with this by directing one’s attention towards actions that lead to success, by encouraging persistent effort, and by facilitating the discovery and application of task-appropriate strategies (Locke & Latham, 2002). In setting (and pursuing) a goal an individual might also experience conflict – either in deciding which goals to pursue or during the striving process itself when other plans might intervene, causing disengagement from the original aim (Slocum, Cron, & Brown, 2002). These and similar barriers require active management of the goal-striving process (Fishbach et al., 2009; Gollwitzer, 1990; Locke & Latham, 2006; Oettingen, Hönig, & Gollwitzer, 2000).

After goal striving is complete, the individual enters upon an evaluation stage where new goal-oriented behaviour may emerge in response to their recent undertaking (Paulssen & Bagozzi, 2005; Shah & Kruglanski, 2000). In the case of a failed goal attempt, the person may learn from their experience, such that other means for attaining the objective are recognised (Shah & Kruglanski, 2000). Or, where the original goal was achieved, an increase in confidence (self-efficacy) may lead to higher ambitions, prompting them to aspire to the next level of a particular goal ladder (Koo & Fishbach, 2010).

One example of a goal ladder concerns the progression from one educational level to the next, where, after achieving a given academic objective, an individual may go on to attempt a more difficult or specialised educational goal. In this way, a person’s goal network may
evolve in dialectical fashion as certain goals are completed, others abandoned, and yet others are revised or newly-established as a consequence of previous efforts (Oettingen & Gollwitzer, 2007). The unfolding nature of an individual’s goals and the strategies for attaining them play a central role in this thesis, where the effect of MOOC engagement is investigated to determine its influence on participants’ subsequent educational ambitions and the route taken to reach them.

3.3 Learning Goals

In the previous section, a brief overview was given of the goal pursuit process and the self-regulatory processes that might be invoked throughout. In this section, the different goal types that might be adopted within an academic context are examined. This discussion will illuminate the main learning approaches used by MOOC participants. It will also explain why those with particular learning orientations are attracted to certain MOOCs over others.

As noted above, goals may be framed as high-level and abstract or as low-level and concrete. Goals can also be framed positively or negatively, or as performance or mastery-oriented (Elliot, Shell, Henry, & Maier, 2005; Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Oettingen & Gollwitzer, 2007). Mastery goals are centred on attaining new skills or knowledge, while performance goals are typically used by someone to validate their own ability, or as a reference point against the ability of others (Grant & Dweck, 2003). Performance goals are further qualified as either performance-approach or performance-avoidance, with approach goals motivated by the need to demonstrate competence, and avoidance goals by the need to bypass failure (Elliot et al., 2005).

The adoption of either of these orientations (mastery or performance) in an educational setting may affect the way students perform in their studies (Harackiewicz et al., 2000). Some researchers have found that those who pursue mastery goals are more likely to engage in deep learning and to have a stronger sense of self-efficacy than those who adopt other orientations (Sullivan & Guerra, 2007; Zimmerman & Schunk, 2006). One reason for this is that “a mastery goal orientation focuses students’ attention on processes and strategies that help them acquire skills and improve their competencies” (Zimmerman & Schunk, 2006, p. 358). In contrast, a performance-avoidance approach is thought to have a damaging effect on
academic success because it is based on social comparison and “does not highlight the importance of the processes and strategies needed to learn or raise self-efficacy for learning” (Zimmerman & Schunk, 2006, p. 358).

Mastery and performance orientations are also closely related to intrinsic and extrinsic motivational concepts. Intrinsic motivation comes about when the target activity is an end in itself, while extrinsic motivation treats such activity as a bridge to something else, such as recognition or a monetary incentive (Eccles & Wigfield, 2002). Expectancy beliefs – that is, the perception of one’s likelihood to attain a goal after taking into account factors such as self-belief – impacts significantly on both the choice of goal and the motivation for achievement (Pintrich & De Groot, 1990). While an individual’s goal orientation is typically stable, within an academic context it is not uncommon for students to adjust their expectancy beliefs in response to their perceived competence, which may cause them to alter their previous orientation (from mastery to performance or vice versa) (Anderman & Midgley, 1997). Such a change may be brought about through a new educational context, leading to an increase in self-efficacy (Anderman, Austin, & Johnson, 2002). These findings are supported by a recent study which has shown that classroom context may promote certain behaviours, thereby shaping the goal types adopted by learners (O’Keefe, Ben-Eliyahu, & Linnenbrink-Garcia, 2013).

Classroom contexts may also attract learners with specific goal orientations. This was borne out by an earlier survey of MOOC participants, which showed that certain course topics (such as those based on the social sciences) attracted more performance-oriented individuals than others (such as humanities-style courses), which had a higher representation of mastery-based learners (Christensen et al., 2013). Relating to this, another study found that there was no significant difference in the completion rates of MOOC participants who identified as either performance or mastery focused (Wang & Baker, 2015).

Consistent with the literature that some educational contexts may promote a change in students’ perceived academic competence and, as a consequence, their learning orientation (from mastery to performance or vice versa), it is later asserted (in Chapter 5) that a change in orientation is more likely to be associated with a new or enhanced goal intention for university study than for someone whose orientation remains stable. This observation relates
not only to the sense of discontent that frequently heralds the formation of a new goal (Locke & Latham, 2006) but also to a change in perceived academic competence that may occur after the completion of a MOOC. Such circumstances may be a catalyst for a positive change in self-belief, which often signifies a readiness to move up the goal ladder (Koo & Fishbach, 2010).

3.4 The Goal Hierarchy

People are seldom governed by a single goal or by goals that are isolated from other aims (Kopetz, Kruglanski, Arens, Etkin, & Johnson, 2012). MOOC students, for example, typically cite several goals to explain their enrolment (Christensen et al., 2013; Hew & Cheung, 2014; Zheng et al., 2014). Thus, while goals can be studied in isolation, it is useful to consider them as part of a larger, hierarchical structure of related objectives. Within the current study this approach allows an individual’s MOOC goals to be understood from within the context of their broader ambitions.

A goal structure “comprises the set of goals that are relevant to a given behavior and ... specifies how these goals are organized” (Pieters et al., 1995, p. 228). Such a structure may be represented (Figure 3.1) with abstract goals at the top served by more concrete, task-oriented goals at the bottom (Bagozzi & Dholakia, 1999; Pieters et al., 1995; Shah & Kruglanski, 2000). These different goal types, when so arranged, function as a means-end chain, with the higher-level goals reached via a sequence of shorter-range subordinate goals. This arrangement also suggests the motivating role that goals play; that is, it represents what the individual is trying to achieve (focal goal), how they are trying to achieve it (subordinate goals), and why they want to achieve it (superordinate goals) (Pieters et al., 1995).
The goals at the top of the hierarchy are termed superordinate goals. These provide the reasons and motivation for the lower-level goals that lead to them (Bagozzi & Dholakia, 1999; Oettingen & Gollwitzer, 2007). Superordinate goals might be abstract, and deal with some feature of the ideal self (e.g., the goal to be honest and trustworthy) (Carver & Scheier, 2001) or, more pragmatically, established due to a scarcity of resources (e.g., a lack of food will cause other lower-level goals to be activated in order to satisfy one’s hunger) (Van Osselaer et al., 2005). The focal goal represents the active, target goal. This goal, when attained, is thought to bring about the desired end state represented by the superordinate level goals. The goals at the lowest level of the hierarchy – the subordinate goals - represent the tasks that must be completed to achieve the focal goal; for this reason, they are sometimes referred to as task goals, action goals, or means (Cuijpers, van Schie, Koppen, Erlhagen, & Bekkering, 2006; Shah & Kruglanski, 2000).

The means used to reach a focal goal might involve ordinary behaviours (e.g., driving one’s car to reach a holiday destination) or the purchase of goods and services (e.g., buying clothes to satisfy an appearance goal) (Van Osselaer et al., 2005). To give an example of a goal hierarchy that invites both, consider an individual whose ideal self is of someone ‘accomplished and intelligent’. Such a concept represents the superordinate goal. Next in the hierarchy is the focal goal, which represents a quality or state associated with the top-level goal (Bagozzi & Dholakia, 1999; Carver & Scheier, 2001). In this example, the individual may
strongly associate having a university degree with a sense of accomplishment and, as a consequence, make this their focal goal. To achieve this objective requires multiple activities or tasks, including those involving consumer choice (i.e., selection of a university) and volitional behaviour (enrolment in a course, completion of assignments, etc.) (Bagozzi & Dholakia, 1999; Laran & Janiszewski, 2009).

One of the main challenges of goal achievement is in choosing the correct behaviours to reach a given end (Bay & Daniel, 2003). The individual must also take advantage of opportunities to act and to persist in the face of difficulty (Oettingen & Gollwitzer, 2007). In addition, where obstacles are encountered it may be necessary to substitute one set of behaviours for another (Kruglanski et al., 2002; Oettingen & Gollwitzer, 2007; Shah & Kruglanski, 2000). The relationship between behaviours (or means) and their associated goals can be represented by a goal network that highlights the pathways to goal completion (Shah & Kruglanski, 2000).

3.5 Goal Networks

A goal network is a collection of goals that are associated with their means of attainment (Kruglanski et al., 2002; Shah & Kruglanski, 2000). The links between means and goals may differ, both in their form and number of associations. The means that are discussed here represent the task-oriented subordinate goals that must be accomplished to achieve one or more focal goals. The means-goal link may be either equifinal (Figure 3.2) or multifinal (Figure 3.3). Equifinality depicts a many-to-one association between means and the focal goal, while multifinality exists when several goals can be achieved through a single means (Kruglanski et al., 2002). Equifinality is considered here first.
As shown in Figure 3.2, an equifinal network exists where one or more means lead to the same focal goal. The number of means in the equifinal set represents the choice of possible behaviours with respect to that goal (Shah & Kruglanski, 2000). The size of the equifinal set also impacts on the strength of the link between means and its related goal: The larger the set, the less likely that any single pathway will be strongly associated with attainment of the focal goal (Kruglanski et al., 2002).

To give an example: The goal of learning to program a computer might be satisfied in multiple ways (undertaking a MOOC, learning from an experienced programmer, enrolling in a university course, self-study, and so on). Someone with this goal must therefore decide on the most suitable behaviour to attain it. The means chosen will be influenced by the individual’s view of how likely a given pathway is to lead to the desired outcome (Kruglanski et al., 2002). As these means multiply so does the competition between them – a situation which serves to attenuate the strength of the link between the target goal and each of the behavioural pathways that connect with it (Kruglanski et al., 2013; Kruglanski et al., 2002).

Notwithstanding this weakening effect, the diversity of means within the equifinal set may also serve to increase the likelihood of goal attainment. This is particularly so for difficult goals where, if one pathway is unsuccessful, another can be chosen (Kopetz et al., 2012). The means that are used to reach an objective may also depend on an individual’s knowledge and experience with the goal-domain (Aurier, Jean, & Zaichkowsky, 2000; Laroche, Kim, & Matsui, 2003; Viot, 2012). Other factors may impinge on the choice of goal pathway – for example, the availability of any given means (Van Osselaer et al., 2005) or the ability of an individual to
recall or associate a particular means with a specific goal on the relevant occasion (Cuijpers et al., 2006).

In choosing between means, additional background goals may influence the decision (Chun et al., 2011; Kopetz et al., 2012; Kruglanski et al., 2002). Hence, in some situations, goal-oriented behaviour “may be driven by an interplay of explicit and implicit goals” (Chun et al., 2011, p. 1124). Our prospective programmer, for instance, might hold background goals for conserving time and money, which could convince him to enrol in a MOOC over university. The more that additional goals impinge on the decision-making process, the further one’s goal structure moves from having an equifinal architecture to one involving multifinal choice (Figure 3.3) (Kruglanski et al., 2002).

Multifinality exists where a single means serves multiple goals. The act of walking, for example, may be associated with the aims of increasing one’s fitness as well as travelling to work; or, the act of undertaking a MOOC may be associated with the goals of personal development, meeting new people, and cost-effective education. The multifinal set is defined as the collection of goals that are served by a given means (Kruglanski et al., 2002). Thus, ‘getting to work’ and ‘staying fit’ may appear as goals in the multifinal set that is connected to the means ‘walking’.

Figure 3.3
Multifinal goals (adapted from Kruglanski et al., 2002)

The focal and background goals that an individual seeks to attain (and which can be reached through completion of one or more subordinate goals, or means) are referred to in this thesis as the active goal set. The goals that make up this set are termed the co-active goals (Kopetz et al., 2011). For example, the active goal set for the subordinate MOOC goal in Figure 3.4
consists of the goals: develop professionally, gain an academic credential, and save money. The goals within this set represent the combined reasons for doing the MOOC.

![Figure 3.4](image)

**Figure 3.4**
Active goal set for a MOOC subordinate goal

Where an individual has a focal goal along with one or more active background goals, and where a multifinal pathway is sought, the effect will be to constrain the choice of behaviours, since a means to the focal goal must be found that will not hinder, and preferably advance, the background goals also (Kopetz et al., 2011; Kopetz et al., 2012). This is considered further in the next section.

3.6 Goal Conflict and Goal Shielding

Goal pursuit, of course, involves more than the right choice of behaviours. In many situations, an individual is likely to have several competing goals that may not be easily resolved through a multifinal pathway. For example, the unique focal goals (a, b, and c) depicted in Figure 3.2 share no common means for their achievement, potentially causing conflict over which to pursue. Where conflict exists, the interfering goals can be balanced or shielded (Fishbach et al., 2009; Kruglanski & Kopetz, 2009; Oettingen & Gollwitzer, 2007).

Goal balancing involves embarking on a sequence of behaviours that each serve conflicting ends (Fishbach & Dhar, 2005; Fishbach et al., 2009). Thus, someone with the competing aims of staying in shape and enjoying sumptuous food may, when at a restaurant, order a healthy main meal followed by a high-calorie dessert to satisfy both requirements. This tendency to balance goals is supported by other literature, which shows that after progress is made towards a given objective some individuals may interpret this as a license to temporarily
disengage and pursue competing ends (Fishbach, Dhar, & Zhang, 2006; Gollwitzer, Sheeran, Michalski, & Seifert, 2009; Louro, Pieters, & Zeelenberg, 2007).

Instead of balancing goals, an individual may prioritise them. In this case, the more important goals are emphasised over others less salient (Fishbach et al., 2009; Gollwitzer et al., 2004; Oettingen & Gollwitzer, 2007). Such goal shielding may allow someone to overcome the temptation of multiple active goals, which might otherwise weaken their commitment and hinder progress toward their main objective (Kruglanski & Kopetz, 2009). Prioritisation may also occur dynamically in response to an individual’s feelings about goal progress and the proximity of achievement (Louro et al., 2007; Shah, 2005). Goals can also be completely deactivated – in particular, a goal that has been achieved may lose its motivating effect, and so cease to impact on an individual’s future decision making ( Förster, Liberman, & Higgins, 2005).

One effect of goal shielding or deactivation may be to increase the number of means that associate with a given set of goals (i.e., those goals that remain after the shielded or deactivated goals are removed). In some cases this could make a multifinal solution more feasible (Kopetz et al., 2012; Kruglanski et al., 2013). As an example, a diner may seek to choose a restaurant that satisfies three objectives: One, to have an enjoyable meal; two, to impress her dinner guest; and three, to dine within walking distance of her hotel. As these intersecting goals increase, the number of multifinal means for achieving them are likely to reduce (Kopetz et al., 2012). Conversely, as some of these same goals are shielded or deactivated, the number of multifinal means may increase (Kruglanski et al., 2013). Thus, if this diner ignores the goal of a restaurant that is close to her hotel she can then choose from more venues, since only two goals must now be satisfied (to eat a good meal and to impress her guest).

This concept is explained further with the help of Figure 3.5, which depicts the linkages between three sample goals and their associated means. Here, goal A is satisfied by means 1 and 2; and goals B and C by means 2 and 3. The multifinal pathway to all three is through means 2 (depicted in bold font).
Within this thesis, a subordinate goal or means that is consistent with an individual’s active goal set is one whose completion is expected to result in attainment of all goals within that set (hence, there is a pathway that links the means to each of them). A subordinate goal whose completion is expected to reach some, but not all, goals within the active goal set is termed partially consistent. Using these definitions, in Figure 3.5 it follows that means 2 is consistent with the active goal set, while means 1 and 3 are only partially consistent because they connect with just a subset of the co-active goals.

It is important to note that this consistency state may be disturbed through the deactivation of focal or background goals. To illustrate the effect of goal deactivation in a multifinal scenario, assume that goal A from Figure 3.5 is deactivated, leaving only goals B and C (Figure 3.6). This serves to increase the number of multifinal means that will reach the co-active goals (from a single means in Figure 3.5 to two in Figure 3.6).
There are other, more subtle consequences that may ensue after goal shielding or deactivation. Consider Figure 3.7. Here, goals B and C have been shielded (indicated by the shaded circles) by increasing the importance of goal A. In this case, assume goals B and C are ‘nice to have’ but not essential. The choice is now between an equifinal pathway to the main focal goal A and a multifinal pathway to all goals A, B and C.

![Figure 3.7](adapted from Kruglanski et al., 2013)

There are situations where an equifinal solution might be preferred to a multifinal one (Kruglanski et al., 2013). Recall that goals are typically selected on the basis of their desirability and feasibility (Oettingen & Gollwitzer, 2007). For individuals who place more emphasis on desirability (i.e., on the value of attaining their goal) a multifinal solution might be preferred, since maximum value will accrue by reaching additional goals via this pathway. In contrast, for those with greater focus on feasibility (i.e., expectancy of achievement), an equifinal means may be sought, since it provides a more direct and certain link with the target goal (Kruglanski et al., 2013). Under this interpretation, for an expectancy-focused personality, means 1 in Figure 3.7 is a likely choice. For someone with a value focus, however, means 2 may be chosen, since it allows extra goals to be achieved enroute to the focal goal (Kruglanski et al., 2013). Adjusting the focus on goals within a given set may thereby alter the attractiveness of the means associated with them.

These notions are explored further within the propositions developed for this thesis (Chapter 5) where it is implied that, for some individuals, successful completion of a MOOC is likely to make an academic achievement goal more active, with less prominence given to peripheral aims such as cost and convenience. This may, in turn, liberate these people with respect to
the means to goal achievement, since fee-paying university study may no longer be inconsistent with their revised goal perspective. This also has implications for the consumer choice process, which is discussed in Chapter 4. To consider how the goal pursuit process may facilitate such revisions, such that some goals are deactivated, some shielded, and others made more prominent, the next section examines the behavioural view of goal theory.

### 3.7 Goal Phases and Mindsets

The hierarchical model presented above represents the structural approach to goal theory; there are other models, however, which focus more on behavioural aspects. One of these is the mindset theory of action phases (Gollwitzer, 1990, 2012; Oettingen & Gollwitzer, 2007).

This theory takes as its starting point the main action phases of goal pursuit, which are described as *pre-decisional*, *pre-actional*, *actional*, and *post-actional*. These phases correspond roughly with the stages of goal setting, striving and evaluation. Consistent with the name of the model, these action phases are associated with certain *mindsets*, which explain the cognitive approaches used by individuals throughout the goal pursuit lifecycle. The mindsets in question are *deliberative*, *implemental*, *actional*, and *evaluative* (Gollwitzer, 1990). Figure 3.8 depicts these relationships.
According to Gollwitzer (1990), goal setting consists of two phases; namely, the pre-decisional and the pre-actional. The pre-decisional phase is characterised by an individual having certain wishes that have established a precedence over others because of their feasibility and desirability. It is during the pre-decisional phase that the individual weighs up the benefits of achieving such wishes against the likelihood of success or failure (Oettingen et al., 2000). This stage is associated with the deliberative mindset, in which the individual has a biased focus towards assessing the desirability and feasibility of their wishes (Brandstätter et al., 2003; Gollwitzer, 1990). This stage differs from outright fantasising, in which only the desirability of a wish is assessed, not its feasibility (Oettingen, 1996). The outcome of the pre-decisional phase may result in a new goal intention (Brandstätter et al., 2003).

Next comes the pre-actional phase where the actions needed for goal achievement are planned. This will involve the choice of means used to reach a goal (Oettingen & Gollwitzer, 2007). This stage may also involve the creation of implementation intentions, which take the form “If situation x arises, I intend to do y” (Gollwitzer, 1999, p. 494). These intentions provide the individual with a plan of action when faced with other, competing influences that would otherwise draw them away from their target goal (Achtziger, Gollwitzer, & Sheeran, 2008; Gollwitzer et al., 2004). As planning proceeds, the individual moves from having a goal intention to forming a goal commitment (Oettingen & Gollwitzer, 2007).

Next is the actional phase, which corresponds to the goal striving stage discussed earlier. The actional phase is likely to invoke the actional mindset (Gollwitzer, 1990). Such a mindset “favors goal attainment by helping the individual to effectively cope with classic problems of goal striving, such as becoming distracted, doubting the attractiveness of the pursued goal, or being pessimistic about its feasibility” (Oettingen & Gollwitzer, 2007, p. 339). Here, the individual is no longer focused on the value of their goal or on alternative means for reaching it; instead, their sole concern is with the current set of goal-oriented actions that must be performed (Gollwitzer, 1990).

Once goal striving is complete, the individual enters the evaluative phase. Within this phase, if goal pursuit was successful, they deliberate on the value received from attaining their goal versus the value (i.e., the desirability) expected as part of the earlier pre-decisional phase (Gollwitzer, 1990). In the case of a failed goal attempt they may also reflect on feasibility
aspects, which might involve a choice of different means to attempt the same goal again in future (Shah, 2005). The evaluative stage may also be used to decide if further action is necessary in relation to either new or existing goals (Brandstätter et al., 2003). In later chapters, the impact of this evaluative stage is investigated from within a MOOC context by comparing participants’ post-MOOC goals and their intentions regarding university enrolment against their pre-MOOC status.

### 3.8 Goals and Consumption

The goal pursuit stages discussed above are now linked with consumption. Consumer behaviour is often goal-oriented. This is because consumers purchase goods or use services that facilitate the attainment of one or more specific ends (Bagozzi & Dholakia, 1999). This link between consumption and goals has been summarised by Kopetz et al. (2012), who state that “when people decide which products and brands to buy and in which quantity, what to eat for breakfast, what kind of soda to drink, whether to take the bus or drive to work, they do so on account of different goals they are attempting to pursue” (p. 208).

The connection between the various levels of the goal hierarchy and consumption activity was explored by Paulssen and Bagozzi (2005). Following Carver and Scheier (2001), these authors describe a three-tiered self-regulatory goal framework (Figure 3.9) that includes superordinate goals (system level), focal goals (principle level), and subordinate goals (program level) that represent a product, service or consumption activity through which the higher-level objectives are reached.
This model also allows for feedback (represented by the comparators and perceptual inputs), which may lead to adjustment of an individual’s goals and consumption activities in light of their recent experience. The model “proposes that higher-order goals, such as the ideal self, determine benefits that in turn determine brand consideration through self-regulatory processes” (Paulssen & Bagozzi, 2005, p. 693).

The self-regulation process depicted here shows how an individual might first establish a superordinate (system level) goal that relates to the ideal self – in this example, that of career prestige. The principle level benefits derive from this superordinate goal; these are created when the individual believes, through a feedback process (comparator 3 in Figure 3.9), that they have fallen below a certain standard or benchmark with respect to their ideal. The recognition of a discrepancy between an individual’s superordinate goal and their current state has been noted elsewhere as a catalyst for needs arousal, which may influence other goal-setting and consumption activity (Punj & Brookes, 2001). In this example, such a discrepancy gives rise to the focal goal (principle level) of achieving an educational award. This, in turn, suggests an actual product or service to achieve this aim. Once consumption is complete (in this instance, after an educational program with the necessary attributes has
been selected and studied), the individual will review their experience and evaluate whether it has provided them with the desired benefits for each goal in the means-end hierarchy. This evaluation process is represented by the comparators and perceptual inputs throughout Figure 3.9.

The above discussion highlights that, when choosing a brand, the consumer evaluates its suitability based on the perceived benefits with respect to some active goal (Van Osselaer & Janiszewski, 2012); where these benefits fall short, an adjustment in strategy may result (Wang & Mukhopadhyay, 2012). This approach is consistent with the goal-oriented process discussed earlier, in which an individual evaluates their goal striving activity and adjusts their future strategies as needed (Brandstätter et al., 2003; Oettingen & Gollwitzer, 2007).

As suggested by the location of the comparators and perceptual inputs in Figure 3.9, this adjustment strategy may occur at any level within the hierarchy (Paulssen & Bagozzi, 2005). For example, if the superordinate goal is not met, the consumer might question whether an educational award does indeed provide the benefit of increased prestige; or, they may instead conclude that this assumption remains valid but that the selected program of study was somehow deficient. This feedback might then stimulate a change in future consumption activity as the understanding between goals and their associated means deepens (Van Osselaer & Janiszewski, 2012).

As with the goal evaluation process discussed earlier, reflecting on a specific consumption experience might also cause someone to establish new goals, to discover alternate means to existing ones, or to emphasise different background goals within their current active goal set (Kopetz et al., 2012; Shah, 2005; Shah & Kruglanski, 2000). Such changes may alter the number of equifinal or multifinal means that lead to a given goal or set of goals, which may in turn affect how the consideration set of possible products or services is formed and evaluated. The literature on consideration sets and consumer decision-making is reviewed in the next chapter.
3.9 Conclusion

In this chapter the literature on goals and the goal pursuit process was examined, along with the self-regulation that occurs throughout this process. Research on the connection between goals and consumption was also reviewed. These concepts form a key part of several propositions given later in the thesis concerning the goals of MOOC students and how they might change as a result of interaction with a given Massive Open Online Course.

Goals may be abstract or concrete. Within an achievement context, goals may also be classified as mastery or performance-oriented. Goals can be studied from either a structural or behavioural standpoint. In the structural approach, goals are arranged into a hierarchy that stretches from high-level ideals through to a focal goal, and from there to a series of subordinate goals or means. These subordinate goals relate to the tasks, behaviours or consumer choices that must be completed to achieve the focal and superordinate goals.

Goal pursuit may also be viewed from a behavioural perspective, which involves the stages of goal setting, striving, and evaluation. Choosing a goal is a function of its desirability and feasibility. Selecting a goal involves the deliberation mindset, in which an individual weighs up the benefits and disadvantages of goal pursuit. Different networks of means may connect to a given goal. These may be equifinal, where multiple actions accomplish a single outcome, or multifinal, where a single task can lead to multiple outcomes.

When an individual commits to a goal they enter the goal striving stage, which represents part of the implementation mindset. This phase may involve self-regulatory control mechanisms that encourage persistence, single-mindedness, and appropriate levels of effort. Goal striving is succeeded by an evaluation phase where the individual will reflect on their goal attempt. This post-regulatory stage may suggest new goals or a different emphasis on existing ones. Within a consumption context, this may cause new products or services to be chosen. The link between goals and the consumer choice process is discussed further in the next chapter.
CHAPTER 4

Consumer Decision-Making

4.1 Introduction

Goals influence consumer decision-making (Bagozzi & Dholakia, 1999; Paulssen & Bagozzi, 2005). In this chapter, a link is established between the goal setting, striving and evaluation activities described previously and the consumer decision-making process – in particular, for those situations where an individual seeks to achieve their goal through some type of consumption behaviour. The literature discussed here establishes the connection between goals and consumer choice, a link that underpins later research findings about the effect of MOOC engagement on participants’ selection of future educational pathways and providers.

Consumer decision-making is often represented as a sequence of stages in which candidate products are reduced through a screening procedure, allowing a detailed analysis of just a few items to occur before a final choice is made (Gensch, 1987; Hauser et al., 2009; Shocker et al., 1991; Wright & Barbour, 1977). This phased decision process is depicted by the consideration set model examined here. The chapter also discusses the use of heuristics and how they are employed as a method for choosing between products and services that satisfy a goal or set of co-active goals. Also examined is how an individual’s experience with the consumption domain may influence the decision strategies used when deciding which brands to purchase, as well as the size of their consideration set. In addition, the efficacy of free product sampling as a method for decreasing consumer risk and increasing brand exposure is considered, including the effect of such sampling on the formation of later consideration sets.

In choosing products, consumers are typically guided by more than one goal (Kopetz et al., 2012). Accordingly, the research on multiple goals and their influence on product selection is also reviewed – in particular, how consumers seek to reconcile diverse objectives by choosing a single product or service that can satisfy several co-active goals. Further, since the consumption process may prompt a change or revision to existing goals, the influence of consumption on future consideration set construction is also considered.
The literature discussed here supports a number of propositions developed as part of this thesis, particularly those that relate to how MOOC engagement and completion may prompt some participants to establish a revised goal for university enrolment, culminating in the shortlisting of one or more universities. The literature also informs later research about the way that the consideration process is likely to unfold for individuals with varying levels of educational experience.

This chapter is organised as follows: First, the consideration set model and the decision strategies used to refine and evaluate brands for possible purchase is reviewed. This includes an examination of the different consideration and choice strategies used by those with differing levels of domain experience, as well as a review of the effect of free-product sampling on consideration set formation. Next, the link between goals and the consideration process is explored. Finally, the effect of consumption on future goal setting and product consideration is examined.

4.2 Consideration Set Model

Consumer decisions typically involve a choice between competing brands (Bettman, Luce, & Payne, 1998; Chartrand, Huber, Shiv, & Tanner, 2008; Eliaz & Spiegler, 2011; Hoyer & Brown, 1990; Romaniuk, Sharp, Paech, & Driesener, 2004). Such brands may encompass everyday items such as soap and shampoo, durable items such as automobiles and consumer electronics, as well as service-based products, such as university courses. Although for many brand categories there are multiple alternatives (Eliaz & Spiegler, 2011), consumers may consider just a fraction of these – perhaps only 1 to 6 items, depending on the product category and the experience of the consumer (Aurier et al., 2000; Brown & Wildt, 1992; Dawes & Brown, 2002; Hauser, 2014; Lapersonne, Laurent, & Le Goff, 1995). For these reasons, the consumer decision process is often represented as a sequence of stages in which the number of products or services considered for purchase is reduced to a manageable quantity through a screening procedure, leading to final choice (Gilbride & Allenby, 2004; Hauser et al., 2009; Shocker et al., 1991; Wright & Barbour, 1977).

This phased process may be depicted as a series of nested sets (Figure 4.1), extending from the universal set (containing all products and services) through to the choice set, from which
the chosen item is drawn (Hauser et al., 2009; Shocker et al., 1991). Also featured in this model are the awareness set and the consideration set (also known as the evoked set). The awareness set consists of brands known to the consumer and which are appropriate to their usage goals. The consideration set is a deliberately-formed subset of the awareness set; it represents a shortlist of brands actively considered for purchase. The choice set is a refinement of the consideration set and consists of the alternatives that are evaluated just prior to item selection (Hauser et al., 2009; Shocker et al., 1991). The brand selected from the choice set is represented here as a singleton; that is, a set of one (Halmos, 1960). This model is an example of a two-stage decision process in which candidate products are first identified using basic criteria before a choice is made from a smaller group of alternatives that have undergone deeper analysis (Baltas & Doyle, 2001; Gensch, 1987; Gilbride & Allenby, 2004; Hauser, 2014).

![Figure 4.1](image-url)

**Figure 4.1**  
Consideration set model (adapted from Shocker et al., 1991)

To give a brief overview of how this model works in practice, consider a consumer wanting to purchase a new car. Within a given market there may be 300 different car models available; this represents the universal set. Of these 300 models, this same consumer might be aware
of 10 that are broadly suitable; this is the awareness set. Rather than carry out a detailed examination of all 10 vehicles, the consumer is likely to apply a screening rule (or heuristic) to make the task less burdensome. This screening process yields the consideration set which, on average, is no more than half the size of the awareness set (Brown & Wildt, 1992). Applying this ratio to the current example yields a consideration set of, at most, 5 vehicles. At this point, it may be possible for the consumer to reject one of these vehicles without further evaluation (perhaps because she recently read a bad review from a trusted source). This would leave a choice set of just 4 vehicles. Once the decision problem has been simplified through this type of reduction process it becomes more feasible to evaluate each of the remaining alternatives (Dieckmann, Dippold, & Dietrich, 2009).

The restriction on choice imposed by this model is consistent with the notion that consumers are subject to the constraints of bounded rationality, with limited processing capabilities and working memory (Bettman et al., 1998; Masatlioglu & Nakajima, 2013). These limitations encourage a reduction in the number of items that must be closely examined before a selection is made (Baltas & Doyle, 2001). This approach offers both a psychological advantage in constraining complexity, as well as an economic advantage in limiting the amount of time and effort required to assess the main product alternatives (Masatlioglu & Nakajima, 2013).

The consideration set model not only depicts the conceptual sets that are used throughout the decision process; it also alludes to the decision activity that must occur to generate them (Chakravarti & Janiszewski, 2003; Shocker et al., 1991). This is represented by the arrows that connect the derived sets in the model (Figure 4.1). There are four main decision stages: First (arrow 1 in Figure 4.1), the decision to recognise an item as broadly relevant to the task or goal at hand (such an item will feature in the consumer’s awareness set); second (arrow 2), the decision to move an item from the awareness set into the consideration set for closer scrutiny; third (arrow 3), the decision to move an item from the consideration into the choice set for detailed evaluation; and finally (arrow 4), the decision to select a particular item from the choice set.

The approaches used in each of the above decision tasks may vary across individuals and occasions; indeed, the precise strategy adopted will depend on factors such as the consumer’s goals (Bagozzi & Dholakia, 1999; Paulssen & Bagozzi, 2005), their level of product knowledge
(Aurier et al., 2000; Broniarczyk & Griffin, 2014; Hauser, Dong, & Ding, 2014), how the information about products is framed or presented (Bettman et al., 1998), the number and complexity of options that must be considered (Huffman & Kahn, 1998), and the perceived importance of the decision scenario (Macdonald & Sharp, 2003; Morrow, Long, & MacDonald, 2012; Shocker et al., 1991).

Notwithstanding these various factors, many decision strategies can be characterised by how the information about brands is processed and evaluated (Bettman et al., 1998). In particular, a strategy may be classified according to whether it is heuristic or exhaustive, and compensatory or non-compensatory (Bettman et al., 1998; Gilbride & Allenby, 2004; Hauser, 2014). An example is given to illustrate these concepts.

The collection of educational providers in Table 4.1 represents the choice set for a prospective student. The student’s aim here is to select an institution that best meets her criteria. Each institution represents a distinct alternative. Associated with each is a collection of attributes: Prestige, course, duration (of the course), and cost. Each of these attributes has been given a subjective rating (out of 5) that measures how well it scores against the student’s hypothetical criteria (with 1/5 the worst and 5/5 the best). Such ratings will reflect the individual assumptions and preferences of the individual (Van Osselaer & Janiszewski, 2012).

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Institution A</th>
<th>Institution B</th>
<th>Institution C</th>
<th>Institution D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributes</td>
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<td>Prestige = 3</td>
<td>Prestige = 2</td>
<td>Prestige = 5</td>
</tr>
<tr>
<td></td>
<td>Course = 5</td>
<td>Course = 2</td>
<td>Course = 5</td>
<td>Course = 4</td>
</tr>
<tr>
<td></td>
<td>Duration = 3</td>
<td>Duration = 5</td>
<td>Duration = 2</td>
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<tr>
<td></td>
<td>Cost = 1</td>
<td>Cost = 3</td>
<td>Cost = 4</td>
<td>Cost = 5</td>
</tr>
</tbody>
</table>

Table 4.1
Sample choice set of educational providers

In making a choice, either an heuristic or exhaustive decision strategy might be employed (Bettman et al., 1998). Using heuristics, the student will only consider the salient information within a given context (Betsch & Haberstroh, 2012). For example, in selecting from the set above, only the course and cost attributes might be considered. In contrast, someone using an exhaustive approach will seek to evaluate all of the main product attributes (Gigerenzer & Gaissmaier, 2011; Hauser, 2014). Applying this to the current example, the student might
evaluate all attributes for each institution and use this information to construct an overall value judgment. The traditional view assumes that heuristic decision-making represents a trade-off between accuracy and effort (Shah & Oppenheimer, 2008); more recently, however, it has been argued that heuristic judgements may have greater accuracy than exhaustive strategies, in addition to requiring less effort (Gigerenzer & Gaissmaier, 2011). This makes the heuristic approach equally as rational as the use of exhaustive methods (Hauser, 2014).

The other main decision characteristic concerns whether the approach is compensatory or non-compensatory (Gilbride & Allenby, 2004). With non-compensatory processing, any item not having attribute x (either completely or to a given threshold level) is summarily rejected. Compensatory rules, in contrast, allow a low rating for one attribute to be compensated for by a high rating on some other (Bettman et al., 1998; Dieckmann et al., 2009; Hauser, 2014). To demonstrate the difference: Assume the student above stipulates that her chosen institution must have a cost rating as well as a prestige rating of at least 4; and any provider not meeting this threshold is immediately rejected. This is a non-compensatory rule that excludes all but institute D from further consideration. In contrast to this, the compensatory approach is more balanced – a broader set of attributes is considered, and a failure to meet a designated threshold for any one attribute is not grounds for rejection (Dieckmann et al., 2009).

Using compensatory methods, this student might instead consider all attribute ratings equally with respect to each provider. Using this approach, the attribute scores for individual providers would be totalled to determine an overall ranking, which will guide final choice. This is an example of an equal weighting strategy (Gigerenzer & Gaissmaier, 2011). This approach is compensatory because a poor score on one attribute can be offset by a good score on another. It also represents an exhaustive approach, since each item’s attributes are assessed in their entirety. A variant of this technique is the weighted adding method, in which each attribute is given a different subjective weighting (Dieckmann et al., 2009).

The above approaches may be combined so that particular strategies might be classified, for example, as non-compensatory and heuristic, or compensatory and exhaustive (Bettman et al., 1998; Gigerenzer & Gaissmaier, 2011; Gilbride & Allenby, 2004). In the next section such
combinations are examined further, including how they can be used to generate sets within the consideration model.

4.3 Decision Strategies and Set Generation

Consumers tend to use non-compensatory and heuristic strategies in complex choice situations, and compensatory and exhaustive processing strategies when confronted with more tractable scenarios (Gigerenzer & Gaissmaier, 2011; Papi, 2014). Consistent with this, much of the literature on consideration sets assumes the use of heuristic, non-compensatory screening rules to determine consideration set membership, and more exhaustive, compensatory rules for selecting an item from the choice set (Ben-Akiva & Boccara, 1995; Dieckmann et al., 2009; Gensch, 1987; Gigerenzer & Gaissmaier, 2011; Gilbride & Allenby, 2004; Hauser et al., 2009; Morrow et al., 2012; Wright & Barbour, 1977). This assumption is not universal, however, with other scholars emphasising a detailed evaluation phase before an item is added to the consideration set (Hauser & Wernerfelt, 1990; Paulssen & Bagozzi, 2005; Roberts & Lattin, 1991). Yet other researchers have argued that the consumer’s background may influence the strategy employed, with those unfamiliar with the product category more likely to use heuristic methods than consumers with domain experience (Aurier et al., 2000; Brennan, 2001; Viot, 2012). Further, in some decision scenarios (e.g., where an individual elects to choose an item that has previously been purchased) little or no processing may occur (Bettman et al., 1998; Hauser, 2014).

Consideration sets may evolve as items are added sequentially in accordance with the relevant criteria (Masatlioglu & Nakajima, 2013; Roberts & Lattin, 1991; Shocker et al., 1991). Also, since consideration sets are processed in working memory (Masatlioglu & Nakajima, 2013; Shocker et al., 1991) items not originally added (perhaps because the consumer had forgotten about them or was unaware of them) may suddenly enter into consideration in response to environmental and contextual prompts (Macdonald & Sharp, 2003; Shapiro, MacInnis, & Heckler, 1997). For example, a new MOOC encountered on the internet, and which the consumer was initially unaware of, may thereafter enter her consideration set of educational options. In addition, after assembling the consideration set, some items may be discounted without further processing (Hoyer & Brown, 1990; Macdonald & Sharp, 2003; Shocker et al., 1991).
This fluidity has encouraged researchers to define an additional set, called the choice set (Hauser et al., 2009; Shocker et al., 1991), which represents the final consideration set to be used in the decision making process. It is from the choice set that the selected item is drawn. The strategies used for selection from the choice set are typically different to the constraint-oriented approaches that are employed to generate the consideration set (Ben-Akiva & Boccara, 1995; Gilbride & Allenby, 2004), although others have argued for the superiority of heuristic methods throughout all phases of the decision process (e.g., Gigerenzer & Gaissmaier, 2011).

The consideration set model, and the evaluation strategies associated with it, have been applied to a variety of consumption contexts that include wine selection (Hauser & Wernerfelt, 1990), holiday destinations (Oppewal, Huybers, & Crouch, 2015), undergraduate university selection (Dawes & Brown, 2005), travellers’ airport choices (Başar & Bhat, 2004), automobile purchases (Kim & Ratchford, 2012), and mobile phone selection (Hauser, 2014). This highlights the model’s versatility. Such versatility is further demonstrated by including the consideration model as a key component in the current work, where it is later asserted that a positive MOOC experience may prompt a new goal for university study, which in turn will invoke the consideration process for the choice of tertiary institute.

Before further discussing how goals relate to the consideration model, however, it is necessary to examine the individual sets contained within it more closely, as well as the impact of contextual factors (such as the consumer’s product knowledge) on set construction. In the context of the current research, this will help determine if MOOC participants with varying levels of academic experience are likely to use different strategies when considering university enrolment, and whether they might also be influenced by distinct marketing approaches. As noted above, the first set in the model is the universal set, which represents the totality of brands available (Shocker et al., 1991). No processing occurs on this primary set (Roberts & Lattin, 1991); rather, it is used as a starting point from which other sets are derived. The discussion therefore commences with the awareness set.
4.4 The Awareness Set

Awareness represents the starting point of the consumer decision process; without awareness, a purchase commitment cannot be made (Eliaz & Spiegler, 2011; Macdonald & Sharp, 2003). The awareness set contains products known to the consumer and which are considered relevant to their consumption goal (Shocker et al., 1991). An individual’s awareness set may include items from long term memory as well as products that are newly-encountered at the time of decision-making (Shapiro et al., 1997; Shocker et al., 1991). Since consumption is often goal driven, items within a given awareness set (or its derivatives) need not be from the same nominal product category (Ratneshwar, Barsalou, Pechmann, & Moore, 2001; Shocker et al., 1991) – for example, the goal of having a healthy snack might involve a choice across food items such as cheese, fruit, nuts, and so on. These customised collections are known as goal-derived categories (Ratneshwar et al., 2001; Ratneshwar, Pechmann, & Shocker, 1996).

The most well-known type of consumer awareness is brand awareness (Huang & Sarigöllü, 2014). There are different levels of brand awareness: The most commonly cited are brand recall (top of mind awareness), brand recognition (spontaneous awareness) and aided awareness (Romaniuk et al., 2004). A prior awareness of brand is not, however, a necessary condition for entry to the consideration set, which may also include brands encountered for the first time at the point of purchase (Macdonald & Sharp, 2003; Shocker et al., 1991). This implies that awareness sets may differ across individuals, even where the same usage goals hold. Moreover, given the imperfect nature of human recall, as well as the presence of different situational factors, the awareness set of a given individual might be fluid across different contexts, even in the face of stable consumption goals (Nedungadi, 1990).

The size of an individual’s awareness set may be influenced by the category of products under review (Roberts, 1989). For example, Crowley and Williams (1991) report on awareness set sizes from the literature, and these vary considerably across food and beverage items, bathroom products and luxury goods. Awareness levels may also differ between individuals from different demographic backgrounds, as found by Dawes and Brown (2002) who examined the awareness sets of individual’s making a decision to study at a UK university, and who found that both nationality and age each had an effect on set size. Consumer expertise
may also determine the scope of awareness, with those having more knowledge about a given product category likely to have larger awareness sets than those with less knowledge (Aurier et al., 2000).

Consumers may also have different levels of knowledge on specific items within the awareness set. As noted by Shocker et al. (1991), “the decision-maker need not, and typically does not, possess the same level of knowledge about each alternative” (p. 183). There is evidence that either strong brand familiarity or greater subjective knowledge about products within the awareness set will exert a positive influence on final choice (Hauser, 2014; Huang & Sarigöllü, 2014; Macdonald & Sharp, 2003; Wirtz & Mattila, 2003). Brand familiarity is increased by frequent exposure to the brand (Park & Stoel, 2005), including interaction with the brand (Schmitt, 2012). Even vague brand familiarity may influence the choice outcome, as demonstrated by Shapiro et al. (1997), who show that incidental brand exposure can increase the likelihood of selection. Coates, Butler, and Berry (2006) declare similar findings, reporting that “single exposure to a previously unknown brand name was sufficient to cause a small but reliable increase in the selection rate” (p. 1113). In addition, aside from traditional advertising, free sampling of a product or service has been shown to lead to increased product awareness and choice (Lee & Tan, 2013). These observations show that consumer awareness is not just the starting point of the consideration process; it may also exert a strong influence upon later decision-making behaviour.

4.5 The Consideration and Choice Sets

As noted above, it is often inefficient to evaluate every item in the awareness set. Instead, consumers will first seek to reduce the number of possible options. The consideration set emerges from this need to constrain complexity and to minimise processing and storage costs (Hauser & Wernerfelt, 1990; Masatlioglu & Nakajima, 2013). Since the choice set is a refinement of the consideration set, both are discussed in this section. Indeed, in many cases, the choice set and the consideration set will be the same, since after assembling items for consideration the next decision task will yield a product choice (Hauser, 2014).

It has long been thought essential for a company’s brands to be included in the awareness and consideration sets of as many consumers as possible (Nedungadi, 1990; Roberts & Lattin,
1991); however, since for most product categories there are multiple alternatives, many brands are never considered (Eliaz & Spiegler, 2011; Hauser et al., 2009; Paulssen & Bagozzi, 2005). Hauser et al. (2009) make the point that, of the more than 350 automobile and truck brands available to the American market, the average consumer will consider only 5 or 6 brands for possible purchase. Assuming other factors are equal, if the consumer considers a specific brand for purchase in this market then the chances of making a sale will increase from 1 in 350 to 1 in 6. For these reasons, techniques which influence the composition of consideration sets are an essential part of a firm’s marketing strategy (Crowley & Williams, 1991; Eliaz & Spiegler, 2011; Hauser et al., 2009).

Within the literature, aside from the marketing benefits of awareness and consideration, most focus has been on the rules to form the consideration set and on the selection of an item from this set (e.g., Ben-Akiva & Boccara, 1995; Dieckmann et al., 2009; Gilbride & Allenby, 2004; Hauser, 2014; Hauser et al., 2009; Hauser & Wernerfelt, 1990). The rules used in constructing the consideration set are sometimes broadly referred to as *brand consideration rules*, while those used in making a final choice are known as *brand evaluation rules* (Paulssen & Bagozzi, 2005). Together, these rules, along with the information search and processing tasks that inform them, represent a cost in both time and computational effort. Choosing an item also yields a benefit, or utility, that is realised through consumption (Hauser, 2014; Hauser & Wernerfelt, 1990). In the ideal case, the use of effective screening rules will allow the consumer to make a choice that is just as optimal as if all items within the awareness set had been considered but with the evaluation costs considerably reduced (Hauser et al., 2009).

A principle reason for using heuristics is that consumers are often constrained by time pressure; moreover, this may be compounded by having to evaluate excessive information about products (Huffman & Kahn, 1998). In other cases, there may be limited information on products, which likewise encourages the use of heuristic judgements (Hauser et al., 2009). Consumers may also use heuristics when they lack knowledge of the product domain and so feel incapable of evaluating the brands within it (Aurier et al., 2000; Brennan, 2001; Viot, 2012). Further, where services are concerned, evaluation is difficult where the consumer does
not have first-hand experience, making it necessary for them to rely on heuristics to judge quality (Seth, Deshmukh, & Vrat, 2005).

The level of an individual’s familiarity with the product domain has been shown to impact on decision-making, including the type of heuristic that is adopted and the consequent size of the consideration set (Aurier et al., 2000; Johnson & Lehmann, 1997; Pramono & Oppewal, 2012; Viot, 2012). There are two dimensions to consumer familiarity; namely, depth and breadth (Aurier et al., 2000). Depth of familiarity relates to the individual’s experience with a specific product category. Such experience is acquired through the purchase and usage of products and services from the category. The other dimension, breadth, refers to the number of different brands purchased within a given category.

In a survey of the French beverage market, Aurier et al. (2000) reports that consumers with the lowest level of familiarity (breadth and depth) considered fewer products when making a choice - on average, just 1.57 products were considered, compared with more than 2 for those with greater familiarity. This tendency for novice consumers to consider fewer items is supported by the literature from other consumption domains. For example Viot (2012), reporting on wine consumption, found that experts considered up to 2.6 products across different consumption occasions, versus a maximum of 1.9 products for novices. Rortveit and Olsen (2007), examining fish consumption, note a significant positive relationship between consumer knowledge and consideration set size. In their study of prospective undergraduate students in the UK, Dawes and Brown (2002) report an average consideration set size of 6. While these latter authors did not examine the effect of consumer knowledge on set size directly, they did discover a positive correlation between the number of universities considered and the amount of time spent on information search, which may be regarded as a proxy for domain knowledge. The above observations may not apply in the case of low-value, frequent purchases such as grocery items, where experienced consumers may have firm preferences and so consider less items (Desai & Hoyer, 2000).

Experience with the product domain not only impacts the number of brands considered; it may also affect how they are evaluated (Alba & Hutchinson, 1987, 2000; Hauser et al., 2014). Exhaustive strategies (such as weighted adding) may be more appropriate for those with greater product knowledge, since sufficient expertise is required to establish appropriate
attribute weightings (Laroche et al., 2003). This is supported by Viot (2012), who found that experienced wine consumers, in making their choice, tended to evaluate more attributes (up to 7) than inexperienced users (who, on average, only considered 2 attributes). Within a tertiary education context, these findings are also consistent with the arguments of Brennan (2001), who contends that, when considering university enrolment, those with limited knowledge of the education domain are unlikely to embark on a comprehensive information search, mainly because they feel unqualified to determine which data is most relevant. Instead, such individuals often rely on simple heuristics, such as inferring the quality of the course from the prestige of the university (Brennan, 2001; Russell, 2005). Experienced students, in contrast, are more likely to engage in an exhaustive assessment of universities and courses before making a final choice (Brennan, 2001).

The mitigation of risk is another determinant of consideration and choice; where there is less risk, consumers are often willing to tolerate a reduced number of alternatives within their consideration set (Lapersonne et al., 1995). Moreover, where consumer’s perceive greater risk, not only will they consider more items, they will also evaluate products more extensively (Erdem & Swait, 2004). Within a consumption environment, risk may be reduced by allowing consumers to gain knowledge of a product or service through free product sampling (Cheng & Tang, 2010). Within the software industry, for example, the use of free trials allows the user to accurately assess product quality before purchase (Cheng & Tang, 2010; Lee & Tan, 2013). Product sampling also creates greater brand awareness (Liu, Au, & Choi, 2014), which has been shown to increase the likelihood of consideration (Hauser, 2014; Macdonald & Sharp, 2003; Wirtz & Mattila, 2003). Further, product sampling allows consumers to interact with a brand, such that they are no longer just passive recipients of advertising information, which may increase sales (Schmitt, 2012).

Product sampling represents one aspect of the freemium model, in which a free version of a product is used as an advertisement for similar, related products (Pujol, 2010). An empirical study of mobile applications on the Android platform, for example, found that free, limited-feature application is positively associated with increased sales for the paid version of the same software (Liu et al., 2014). Similarly, when examining music services, Wagner et al. (2014) found that the advertising sales effect was most powerful when the free service shared
nearly all features in common with the premium, paid version. A similar argument has been given by Howarth et al. (2016), who contend that MOOCs are most effective as a pathway into a specific university course where both programs share the same delivery and pedagogical approaches.

The observations in this section inform the research propositions developed in the next chapter, some of which relate to MOOCs as a freemium pathway into fee-paying study. For those MOOC students who do choose to pursue a university pathway, propositions are also established regarding the difference in the consideration set sizes for those with varying levels of educational experience. Before this, however, it is necessary to first examine how multiple consumer goals are resolved through single product choices, as well as how the consumption process may affect the formation of future consideration sets.

4.6 The Influence of Consumer Goals on Consideration and Choice

It was noted in the previous chapter how single goal pursuit is not a common scenario (§3.4). In most cases, people have several active goals as well as multiple pathways for achieving them (Chartrand et al., 2008; Kruglanski et al., 2002; Shah & Kruglanski, 2000). Consumers may likewise demand several features from products or services, such that numerous goals are satisfied (Kopetz et al., 2012; Thompson, Hamilton, & Rust, 2005). The evidence of multiple goals is apparent, for example, in a MOOC context, where career progression, free education, and curiosity factors are often cited as the main reasons for enrolment (Christensen et al., 2013; Milligan & Littlejohn, 2017; Zheng et al., 2014). Notwithstanding that one or more of these goals might be salient, their combined influence makes MOOC enrolment a logical choice for those holding such goals.

Where an individual has an active focal goal along with multiple background goals, the effect will be to constrain the available options for goal achievement, since a means to the focal goal must be found that is consistent with the background goals also (Kopetz et al., 2012). The effect of multiple active goals on decision making is similar to the constraints that might govern the screening and choice of items for purchase (Punj & Brookes, 2001) – for example, price is a likely decision constraint for a car purchase, and may relate back to other active goals of the consumer (e.g., the goal to save money for a house).
Paulssen and Bagozzi (2005) explored how multiple active goals might lead to a cross-classification of objects within a specific category. For example, within an educational context, MOOCs may be regarded as an appropriate member of the cross-category of educational courses that are cost-effective and short, while a fee-paying, two-year university course may not. Here, a new cross-category has been formed by synthesising aspects of multiple goals into one that may be satisfied through a single product or service (Durand & Paolella, 2013; Kruglanski et al., 2013); in this case a MOOC.

The impetus to create cross-categories in response to multiple goals will also occur after consumption is complete (Paulssen & Bagozzi, 2005). This is because, following the consumption process, new goals might be activated, or existing goals deactivated or suppressed through goal shielding (Kruglanski et al., 2013; Oettingen & Gollwitzer, 2007). This will create a new active set of goals that will influence the formation of future goal categories, which will then go on to drive consideration and choice. In the case of goal shielding, this will potentially allow the consideration set to be expanded since, by lessening the impact of background goals, the available means for achieving the focal goal are increased (Kruglanski et al., 2013). This notion is explored further in the propositions of the next chapter, where it is asserted that, for some students, successful completion of a MOOC is likely to bring certain goals to the fore, with less emphasis applied to other goals, such as those relating to cost and time. This may have the effect of making fee-paying university study consistent with some MOOC participants’ revised goal set.

### 4.7 Conclusion

Consumers are often confronted with multiple options to choose from, causing them to refine the number of products that must be considered. The two-stage consideration set model encapsulates this reduction process, in which consumers first reduce the number of potential purchase options into a consideration set before evaluating these limited options and making a choice. In this chapter, the literature concerning this model was reviewed, including the decision strategies that might be adopted. Such strategies may be heuristic or exhaustive, compensatory or non-compensatory.
The decision strategies employed by consumers when they consider and evaluate items may be influenced by the products under consideration, the goals of the individual, how the information is presented, and the importance of the decision scenario. Decision strategies will also depend on the experience of the user with the product domain, with less experienced users more likely to employ simple heuristic methods. In contrast, those with more domain experience tend to consider more product attributes as well as more alternatives when making a choice. Consumers are also likely to consider more alternatives when they perceive greater risks with product selection. This risk-aversion may be overcome through the use of product sampling. Product sampling is especially important in the case of services because it is difficult to assess the value of a service without first experiencing it. As a marketing technique that creates brand awareness, free sampling may also influence the composition of consideration sets.

Goals also influence consumer choice; however, people seldom choose products or services that satisfy just one goal – instead, they make a selection that will allow them to reach several goals. Having multiple goals may encourage the consumer to define a cross-category that embeds these goals into the features demanded of a product or service. And since goal pursuit ends with an evaluation phase where new or revised goals may be established, the consumption process may thereby influence the composition of future consideration sets. In the next chapter, the literature discussed here and in preceding chapters will support the propositions developed concerning university consideration from a MOOC context.
CHAPTER 5
Research Propositions

5.1 Introduction

The aim of this thesis is to investigate the goals of MOOC participants and how they might change as a result of interaction with a given Massive Open Online Course, particularly with respect to university enrolment. For those participants who do report a new or enhanced goal for university study, the author also seeks to investigate the impact of the MOOC experience on their consideration and choice processes when selecting an academic provider. To this end, nine propositions have been established. Within this chapter, these propositions are both presented and justified.

Broadly, the propositions given here deal with (a) the educational goals of MOOC participants and the alignment of these goals with possible future university enrolment; (b) the effect of MOOC completion on participants’ university enrolment goals; (c) the focal goal and learning orientation changes that are expected to occur in those who express a new or enhanced goal for university study; (d) the efficacy of marketing the host’s university courses as part of the MOOC; and (e) the effect of the MOOC experience on participants’ decision to later enrol with the host of the MOOC. These propositions have been suggested by the literature on MOOCs, goal theory, and consumer decision-making. In later chapters (6 and 7), these propositions are tested within a qualitative study of participants enrolled in a MOOC with Charles Sturt University, Australia. Several of these propositions, and the findings that emerged after testing them, were also used as the basis for the hypotheses of this study, which are described in Chapter 8.

5.2 Propositions

Although the marketing potential of MOOCs has been previously flagged (e.g., Freeman & Hancock, 2013; New, 2014) there has been no systematic attempt to explore the impact of the MOOC experience on students’ future educational pathways and choices. To address this gap, the theories of goal-oriented behaviour and consumer decision-making are applied below to posit reasons why an individual might create a new or enhanced goal for university
study after MOOC completion; and further, why the university aligned with the MOOC may be viewed favourably as the enabler of this educational goal. Within Chapter 8, these propositions are refined as hypotheses for use within the quantitative study of this thesis.

Since “choices are made to achieve goals” (Bettman et al., 1998, p. 192), the success of MOOCs as a marketing vehicle firstly depends on whether the goals of those enrolled align with university study. Accordingly, the first group of propositions (P1-P2) explore the relationship between MOOC participants’ goals and possible university enrolment. The next proposition (P3) concerns the predicted pre-condition (namely, MOOC completion) for the creation of a new or enhanced goal for university study, while propositions 4 to 5 deal with some of the associated goal changes that are expected to occur in those who express a new or enhanced objective for university study. The final set of propositions (P6-P9) relate more specifically to MOOCs as a marketing vehicle. Proposition 6 deals with the efficacy of marketing the host’s courses to participants of the MOOC, while propositions 7 to 9 deal with the impact of the MOOC experience on any subsequent decision by these same participants to enrol with the host.

Consistent with the advice given by Webster and Watson (2002), each proposition is justified below using both logic and/or past research findings. To ensure clarity of the terms used within these propositions, several key terms that were discussed in the literature review on MOOCs, goals and consumer choice are first given a more formal definition.

**Definition 1:** A **focal goal** represents the principle (main) goal of an individual within a given context (see §3.4). While people typically have multiple goals, the focal goal represents the most important objective with respect to a given scenario (it is the goal that has the primary focus) (Kopetz et al., 2012). To give an example, a student at university may have multiple goals that include making friends and learning new skills, but a focal goal of graduating from the course.

**Definition 2:** A **background goal** is a goal held by an individual within a given context but which is not considered as important as the focal goal (see §3.5). Such a goal may influence the behaviour of the individual in seeking to attain their focal goal, but is not in itself the main reason for goal-striving (Kopetz et al., 2011). Returning to the example above, a
student with a focal goal of graduating from their course may also have background goals for learning new skills, creating social connections, and so on. The difference between a focal and background goal is primarily one of salience, with a focal goal having greater priority than its associated background goals (Gollwitzer et al., 2009; Oettingen & Gollwitzer, 2007).

**Definition 3:** A **subordinate goal** is a task-oriented goal whose completion is expected to lead to the attainment of one or more focal and background goals. Subordinate goals represent the *means* that are used to achieve higher-level goals (Shah & Kruglanski, 2000). As noted earlier (§3.4), subordinate, background and focal goals may combine to form a hierarchy, such that the “higher level goals specify the purpose (‘why’) of action, and lower level goals provide increasingly specific actions (‘how’) required to accomplish the higher level goals” (DeShon & Gillespie, 2005, p. 1105). Subordinate goals may also be arranged hierarchically with respect to each other, such that more complex actions or means are served by the completion of smaller, discrete tasks (Kruglanski et al., 2002).

**Definition 4:** The **active goal set** refers to the collection (one or more) of focal and background goals that are held by a given individual with respect to one or more subordinate goals (see §3.5). Each of the goals which make up this set are termed **co-active goals** (see §3.6).

**Definition 5:** A subordinate goal that is **consistent** with an individual’s active goal set is one whose completion results in the attainment of all goals within that set – hence, there is a **multifinal pathway** (see §3.6) that links the subordinate goal to each of them. A subordinate goal whose completion reaches some, but not all, goals within the active goal set is termed **partially consistent** (see §3.6).

**Definition 6:** An individual’s **learning goal orientation** refers to their preference for either a **mastery** or a **performance** approach towards learning (see §3.3). Someone with a mastery approach is typically focused on attaining new skills or knowledge, while a performance-oriented individual is more concerned with validating their own ability or measuring their ability against others (Grant & Dweck, 2003).
**Definition 7:** A goal intention represents an outcome that an individual plans to achieve. Goal intentions differ from implementation intentions in which the actual behaviours and responses needed to reach the goal in question are decided upon and specified (see §3.7).

**Definition 8:** The host university is the university (where applicable) that is aligned with a given MOOC; typically, such a university is responsible for the design and delivery of content within the course (see §2.6). The host university may run a MOOC using their own computing platform or via a dedicated platform such as Coursera or Udemy.

**Definition 9:** A consideration set is the set of products or services that an individual has shortlisted for possible selection (see §4.2).

**Definition 10:** A MOOC participant is an individual enrolled into a given MOOC.

**Definition 11:** University enrolment refers to enrolment in a full-length, fee-paying university course or program (i.e., as distinct from a free MOOC).

After these definitions come the propositions. The first of these acknowledges that MOOCs are often used by participants as a pathway to achieve one or more co-active goals. This fact has been noted by numerous scholars, with some of the main reasons for enrolment identified as absence of cost, the course topic, professional development opportunities, curiosity about the MOOC concept, and creating social connections (Carr, 2013; Zheng et al., 2014). Thus, there is a multifinal connection (Kruglanski et al., 2013) between participants’ co-active goals and MOOC enrolment, such that these co-active goals may be said to form an active goal set (Definition 4) in relation to the MOOC subordinate goal. Further, the fact that participants are currently enrolled in a MOOC implies that they consider it a more suitable subordinate goal than university study for reaching these same co-active goals. By extension, at the time of MOOC enrolment, most of these same participants do not view university enrolment as consistent with their active goal set. In summary:

**P1:** At the start of a MOOC, participants report an active goal set that is only partially consistent with university enrolment.
The above proposition concerns participants’ co-active focal and background goals at the outset of MOOC enrolment. The next proposition concerns the nature of these co-active goals at the time of MOOC completion, and where university study has been adopted as a follow-on subordinate goal. The reasoning is as follows. Since (by proposition 1) university study was originally seen as inconsistent with participants’ active goal set, any subsequent decision to follow a university pathway is likely to have been accompanied by a change to this same goal set:

**P2: Participants who report a new or enhanced goal intention for university enrolment after MOOC completion also report a change to one or more goals within their active goal set.**

Propositions 1 and 2 relate to the goal hierarchies of those who start a MOOC as well as those who complete and thereafter establish a new subordinate goal of university study. They do not, however, speak to the reasons for such a change. Accordingly, the next proposition concerns the basic circumstances under which a participant is likely to create a goal for university study from a MOOC context:

**P3: Participants who successfully complete a MOOC are more likely to report a new or enhanced goal intention for university enrolment than for those who do not complete the MOOC.**

This proposition acknowledges that MOOC completion is likely to represent a successful outcome for the participant (Karsenti, 2013) who thereafter may set a new, more challenging educational goal. This is also supported by the consumer behaviour literature where it is noted that many choices occur as part of an ongoing sequence, with a satisfying consumption experience likely to affect later choices (Novemsky & Dhar, 2005). Further, although there is minimal literature on MOOCs as a pathway into university, it has been observed that they are often studied in succession (Ho et al., 2015). This suggests that those who complete a MOOC frequently explore follow-on study opportunities. The above proposition is also consistent with the concept of a goal ladder (Koo & Fishbach, 2010), in which an individual’s goal ambitions increase along with their confidence to perform more challenging actions. Any such increase in ambition may also cause existing focal or background goals to be abandoned or revised (Koo & Fishbach, 2010), thereby causing a change to the active goal set (P1-P2). This
may, in turn, lead to the adoption of a new subordinate goal (in this case, university study) that is consistent with this revised goal set.

For propositions 4 and 5, the focus moves from the goal environment of MOOC participants to the discontent that individuals often experience before they create a new goal (Locke & Latham, 2006). Consistent with this, it has been noted that participants who achieve goal satisfaction through a MOOC may be less likely to consider university as an option (Howarth et al., 2016). This suggests that, at the end of any MOOC, those who go on to set a university study goal are likely to do so because of a lack of current focal goal fulfilment and, further, that this goal discomfort may have been precipitated by the MOOC experience itself.

There is likely to be a delicate balance here with respect to goal satisfaction and MOOC engagement: Participants who complete a MOOC typically express satisfaction with the overall experience, hence their completion (Karsenti, 2013); however, the personal discontent that is implicit as a motivating factor in most goal-setting decisions also implies that this satisfaction is only partial (Locke & Latham, 2006):

**P4:** Participants who complete a MOOC and who, as a result of their experience, report a new or enhanced goal intention for university enrolment also report a lack of focal goal fulfilment with respect to MOOC completion.

In practical terms, the proposition above means that if a participant completes a MOOC but believes they have still not reached their focal goal (the main reason they enrolled), or if the goal that they have reached has left them unfulfilled, then they may consider university as a valid alternative subordinate goal. Recall that there are two main reasons why an individual, in pursuing a focal goal, is likely to change their subordinate goal: Firstly, because their original subordinate goal did not allow them to reach their chosen objective; or secondly, because the focal or background goals have undergone change (Kruglanski et al., 2013; Shah & Kruglanski, 2000). In either case, the original subordinate goal may need to be replaced with one that is expected to lead to the desired outcomes.

This observation draws on goal theory, which notes that if the behavioural pathway to a given objective is unsuccessful then an alternate route may be sought (Kopetz et al., 2012). Such
alternative-seeking behaviour is made more likely by the fact that both MOOC and university students share many co-active goals, including those that relate to career development, improved job prospects, and certification (Christensen et al., 2013; Pope & Fermin, 2003; Zheng et al., 2014). Thus, when one pathway (e.g., MOOCs) is tried but the focal goal not reached, another pathway (e.g., university) may be considered. Similarly, if one or more of the background goals change (for example, if cost is no longer seen as critical a factor for a MOOC graduate seeking to further their education) then a new subordinate goal may be adopted – one that acts as a more appropriate multifinal pathway to the new active goal set (Kruglanski et al., 2013).

Aligned with the above discussion, and consistent with the literature that some educational contexts may promote a change in students’ perceived academic competence, which in turn may prompt the adoption of a new goal-orientation (from mastery to performance or vice versa), the next proposition asserts that a change in orientation is more likely to be associated with a new or enhanced goal intention for university than for someone whose orientation remains stable:

**P5: Participants who complete a MOOC and who change their learning goal orientation (from mastery to performance or vice versa) as a result of their course experience are more likely to report a new or enhanced goal intention for university enrolment than for those who complete the MOOC but whose goal orientation does not vary.**

As noted previously (§3.3), goals can be framed as performance or mastery-oriented (Elliot et al., 2005; Harackiewicz et al., 2000; Oettingen & Gollwitzer, 2007). The adoption of either of these orientations (mastery or performance) in an educational setting may affect the way students approach and perform in their studies (Harackiewicz et al., 2000). Further, DeShon and Gillespie (2005) argue that the selection of a goal orientation (e.g., mastery or performance) will itself depend on the choice of co-active goals, with the orientation chosen being one that “suits the profile of the principle goals being pursued” (p. 1106). Thus, any shift in an individual’s goal orientation may be in response to a change in the goals contained within their active goal set (P1-P2), and hence may also indicate a change in the subordinate goal that is used to reach them.
The next set of propositions (P6-P9) focus more on the overt marketing potential of the MOOC platform – in particular, the opportunity that MOOCs present for the host institution to actively promote both university study and their own programs as an effective follow-on enrolment option. A key criterion for successful goal pursuit relates to the choice of pathway for achieving the focal goal (Bay & Daniel, 2003). The role of marketing can play a key role here (Bagozzi & Dholakia, 1999). This leads to the next proposition:

**P6: Participants who complete a MOOC and who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) are likely to consider the host university for enrolment.**

This proposition concerns the direct marketing of the host institution within the MOOC itself. It is based on the (intuitive) fact that, in a consumer context, the pursuit of a goal requires the choice of specific brand to fulfil the goal pathway, and that pre-existing brand knowledge is likely to foster the adoption of a specific pathway.

The next set of propositions focus less on the goal-setting aspects of MOOC participants in favour of the consumer decision-making phase. Participants who complete a MOOC are frequently well-disposed towards the tertiary institute with which it is aligned, making them more likely to enrol in other offerings (possibly other MOOCs) by the same provider (Karsenti, 2013). Furthermore, the qualities of trust and commitment are seen as antecedents of institutional loyalty (Perin, Sampaio, Simões, & de Pólvora, 2012), and thus of potential repeat business with the institute hosting the MOOC. The next proposition deals with the influence of these factors over participants’ future university choices:

**P7: Participants who successfully complete a MOOC and who report a new or enhanced goal intention for university enrolment are likely to include the tertiary host of the MOOC within their consideration set.**

As noted above, forming a new consumption goal may also involve selecting a product or service to help the individual reach their objective (Bagozzi & Dholakia, 1999). In the case of tertiary study, this means choosing an academic provider. Consumer choices are often framed in terms of consideration sets, which represent a shortlist of products or services that are
actively considered for purchase (§4.2). The consideration set is the collection of objects from which the final choice of a product or service is drawn, and derives from a broader awareness set of brands known to the consumer (Hauser et al., 2009). The proposition above recognises that individuals enrolled in a MOOC, and who later form a new goal intention for university, are likely to be aware of the host institute as a tertiary provider (i.e., it will be in their awareness set); and, further, by virtue of the implicit satisfaction evident from MOOC completion, that this institute is likely to form part of their consideration set.

The proposition above also relates to the perceptions of risk that surround the consideration process: Where there is less risk, consumers may be willing to consider fewer brands (Erdem & Swait, 2004; Lapersonne et al., 1995). One method for reducing risk in a consumption context is to offer a free taster of a product or service (Cheng & Tang, 2010). Applied to an education setting, a similar point was raised by Pentina and Neeley (2007), who contend that the uncertainty of university selection can be mitigated by allowing students to undertake an online trial of an institution’s courses. Thus, for those MOOC participants who later intend to enrol at university, the knowledge gained through MOOC interaction may lessen the potential risk of enrolling with the host institute, thereby acting as an information cue that positively influences their future consumption choices (Cheung, Xiao, & Liu, 2014).

On the same theme of consideration sets, the next proposition concerns the size of participants’ university consideration sets in relation to their experience with the education domain:

**P8:** Participants who report a new or enhanced goal intention for university enrolment but who do not have a university degree are more likely to consider fewer universities (i.e., to have a smaller consideration set) than for those who do have a degree.

As discussed earlier (§4.5), the level of an individual’s familiarity with the product domain has been shown to impact on the size of their consideration sets (Aurier et al., 2000; Johnson & Lehmann, 1997; Pramono & Oppewal, 2012; Viot, 2012). Aligned with this observation, the proposition above asserts that MOOC participants who create a new or stronger goal for university and who lack domain experience (because they do not have a university degree) are more likely to establish a smaller consideration set than those who already have a degree.
The next (and final) proposition concerns the circumstances in which the host of the MOOC is likely to be chosen from the consideration set. This proposition draws on the observation that a successful MOOC interaction is likely to lead to university enrolment with the same host institute where a link between the pedagogies and educational tools used in both settings can be established (Howarth et al., 2016; Ong & Grigoryan, 2015):

**P9:** Participants who successfully complete a MOOC and who report a new or enhanced goal intention for university enrolment are more likely to choose the current host university from the consideration set if (a) the engagement experience of the MOOC was satisfying and (b) if the pedagogies and delivery formats of the university offering are perceived as similar to those encountered within the MOOC.

In support of this, MOOCs are viewed by some as a type of technology trial for an online university course (Howarth et al., 2016). Within the software industry, the use of such trials to assess product quality before purchase is common (Cheng & Tang, 2010; Lee & Tan, 2013). Moreover, free technology trials have been found most effective in encouraging a shift to the corresponding paid version when both the sample and fully-fledged products share a high proportion of features in common (Wagner et al., 2014). In addition to this, a positive brand exposure is an important pre-condition for commercial trust (Gefen, 2000), which suggests that those who become acquainted with the host institute through a low-risk MOOC may be more likely to commit to this same host when considering fee-paying enrolment. Thus, where the MOOC experience is satisfying and where the host institute can demonstrate that its tertiary offerings use a similar pedagogical and delivery approach, the author contends that this same host institute is more likely to be chosen from the consideration set of possible tertiary providers.

### 5.3 Conclusion

Goal theory may explain how universities can convert MOOC participants into fee-paying students by illuminating the behavioural and decision-making activities of goal-oriented individuals in an educational context. Those who enrol in a MOOC generally seek to satisfy some type of overarching learning or professional focal goal, in addition to relevant background goals (such as those relating to cost and convenience). MOOC participants may
be either mastery or performance oriented, but learning orientation itself is unlikely to
determine the propensity for future tertiary enrolment. Instead, it is contended that a new
or enhanced tertiary education goal is more likely to result where the individual is generally
satisfied with the MOOC experience but dissatisfied with their progress towards achievement
of their overarching educational ambitions. In some individuals, this creates an openness to
explore other goal pathways for achievement of their focal goals. Within this context, a
marketing appeal which focuses on how tertiary enrolment represents a more effective and
direct pathway towards participants’ end goals offers the best opportunity to prompt
establishment of a new, tertiary goal. Moreover, where an individual is satisfied with their
MOOC experience, and where the host university employs congruent delivery and technology
formats within their fee-paying courses, this may act as a stimulus to enrolment with the host
for some participants. Within the next chapter, the design of a qualitative study used to test
these propositions is given.
CHAPTER 6
Qualitative Methodology

6.1 Introduction

For this thesis a mixed-mode research methodology was used, consisting of qualitative and quantitative methods. The first stage of the research involved a qualitative study of students enrolled in a business analysis MOOC with CSU’s commercial partner, IT Masters Pty Ltd. This study consisted of a demographic survey and two sets of individual interviews with participants before they commenced the MOOC and again after completion. A survey was also conducted prior to the selection of interview candidates to ensure a demographic mix of gender, age, and educational experience. Semi-structured interviews were used to understand why participants undertook this MOOC in the context of their larger goal framework, and whether interaction with either the course or the integrated marketing session (which discussed fee-paying courses of possible interest) changed or upheld their intentions with respect to future university enrolment.

After the interviews, the conversations were transcribed and thematically coded and analysed with reference to the literature on MOOCs, goal theory and consumer decision-making. The resulting analysis has been used to examine support for the research propositions (Chapter 5). Later (in Chapter 8), the results of this qualitative study have been used in the construction of several research hypotheses, which are then tested using quantitative methods (Chapters 9 and 10).

6.2 Rationale and Method

The qualitative phase of this study was used to ascertain support for the research propositions. The study itself involved semi-structured interviews with 19 participants enrolled in a MOOC on business analysis. Semi-structured interviews were used so that students could answer questions openly using their own language, an approach that helps to minimise researcher bias (Rubin & Rubin, 2011). This was a longitudinal study that consisted of two sets of interviews between each participant and the principal researcher. These interviews were conducted before the MOOC started and again when it concluded.
The setting for this study was a MOOC entitled *Introductory Certificate in Business Analysis*, which was run by IT Masters Pty Ltd in association with Charles Sturt University (CSU). Charles Sturt University is a regional Australian university that was established in 1989 (Van Heekeren, 2015). In 2015, it had 40,303 enrolled students. The University also boasts one of Australia’s largest distance education cohorts, with over 24,000 students studying online (Office of Strategic Planning and Information, 2016). IT Masters Pty Ltd ([www.itmasters.edu.au](http://www.itmasters.edu.au)) is one of CSU’s commercial partners, responsible for marketing several of CSU’s online postgraduate IT and management courses. IT Masters regularly conducts free MOOCs on business and technology subjects on behalf of CSU to promote the University’s brand, as well as to encourage enrolment in specific fee-paying courses offered by that institution.

The Business Analysis (BA) MOOC ran over a 5 week period between July and August 2016 and attracted a total cohort of 7,374 students. The course was aimed towards those interested in a career as a business analyst, and was loosely based on a professional industry certification from the Business Analyst International Qualifications (BAIQ) institute. Students also had the option of completing several assessments and a final exam, with those achieving the requisite mark entitled to a certificate of completion. Enrolment was free, with no additional costs for undertaking the assessments and exam or for attaining the certificate of completion.

In terms of delivery, the MOOC included regular (weekly) live webinar-based lectures as well as a Moodle forum to allow students and teaching staff to communicate about all aspects of the course. Students also used the forum to post their responses to several homework questions. The tools and delivery mechanisms used within the MOOC are similar to those employed in many online, fee-paying degree programs offered through Charles Sturt University.

In addition to its learning content, the MOOC featured a brief marketing session on specific Charles Sturt University courses of likely interest to participants. This marketing content was delivered in week 3 of the MOOC (at the conclusion of one of the webinar-based lectures). In addition to information about university generally, and Charles Sturt University courses in
particular, this marketing session emphasised the similarities in both content and delivery mechanisms between the MOOC and a range of online fee-paying courses offered through CSU.

6.4 Recruitment of Participants

All participants in this study were recruited via the MOOC itself. A message about the research project was posted to the MOOC’s Moodle site several weeks before the course commenced. This message asked those interested in participating to give their consent to being contacted by the principal researcher. Of 7,374 enrolments, 210 wished to learn more about the study with a view to possible participation.

These potential participants were later contacted directly through email by the principal researcher. This email contained an information sheet that explained the purpose of the study, what participation involved, and a consent form. Potential participants were also asked to complete a brief demographic survey. It was made clear that those selected for interview would be chosen only after the demographic survey responses were taken into account in order to select the most suitable candidates. No incentives were offered for involvement.

6.5 Participant Demographics

The final interview participants were selected using a purposive sampling technique, with representation sought from different genders, age ranges, educational backgrounds, and varying levels of previous MOOC experience. 19 participants were ultimately selected for interview. Only 5 females requested involvement in the study, with all of them selected as part of the final interview group. This ratio of males to females (19:5) is consistent with the gender ratio noted by Larson (2014) for those studying technically-oriented tertiary courses.

In addition to gender, within the selected participant group, there was a balance of age groups (10 participants aged over 40, and 9 under 40), levels of MOOC experience (with 10 students having no experience of MOOCs and 9 having done one or more previously), and educational qualifications (ranging from high school to doctorate). As per other studies on MOOCs (e.g., Christensen et al., 2013) there was a preponderance of those holding bachelor degree or higher qualifications (15 of the 19 selected). Since one of the main purposes of this study was
to explore the attractiveness of a MOOC-to-university pathway, 17 of those selected were not currently enrolled in a university course. The full list of participants is given in the next chapter.

6.6 Interview Process

The chosen participants were interviewed shortly before the Business Analysis MOOC started and again after it concluded. In some cases, due to the difficulty of managing all interviews before the start of the course, some interviews took place in the first few weeks after the MOOC commenced. These were one-on-one interviews conducted via telephone. Interviews were recorded with participant consent, with these recordings later transcribed and checked for accuracy.

During the first interview, participants were asked about (1) their formal qualifications and educational experiences; (2) their previous MOOC experiences; (3) their individual approach to learning (mastery or performance-oriented); (4) how they found out about the current MOOC; (5) their reasons for enrolling in this MOOC and what they saw as potential roadblocks to completion; (6) their success criteria for the MOOC; (7) where they thought this course might lead (i.e., future educational or career pathways that might emerge as a result of completion); (8) why they chose this MOOC over a university course; (9) their attitude towards university enrolment in the future; and (10) their knowledge and experience with the institute (Charles Sturt University) associated with the MOOC, and whether they were considering enrolment with this institute in the future.

All 19 participants from the first interview were successfully contacted again once the MOOC concluded. During this second interview, participants were asked about (1) their opinion of the MOOC experience, and whether it met their original expectations; (2) whether their approach to learning had changed as a result of their experience; (3) where they thought this MOOC might lead; (4) their view of the institute associated with the MOOC; (5) whether they were considering university enrolment in the future, and the definitiveness of such plans; (6) whether, for those considering university enrolment, they would consider CSU as their educational provider; and (7) the effect of the MOOC experience and marketing session on
their future study and institutional choices. The full list of pre- and post-MOOC interview questions are given in Appendix 1.

6.7 Coding and Analysis of Interview Transcripts

Once the interview stage was complete, each transcript was read multiple times, prior to an initial coding stage. This coding was undertaken manually by the author based on key word counts and through the grouping of concepts into underlying themes. The resulting themes were then checked for accuracy by the author against the raw data, before their arrangement into categories. These categories and themes are presented in the next chapter. Key statements from the interview transcripts are provided in Appendix 2.

6.8 Conclusion

In this chapter details of the qualitative study were given. This study was used to understand why individuals do MOOCs and the impact of this experience on their intentions regarding both university enrolment generally as well as with the host institute. The findings from this study are discussed in the next chapter.
CHAPTER 7
Qualitative Research Findings

7.1 Introduction

In this chapter the results of the qualitative study are reported. In preparing these findings, interviews with MOOC participants were coded and analysed. The themes that emerged from this coding stage were then organised into goal-related categories. From here, an explanatory model was built that incorporated the focal, subordinate, and background goals of participants. This goal model has been used to explore the reasons why people enrol into MOOCs generally, and the effects of the MOOC experience on their future educational ambitions and choices.

The most common focal goal for doing the Business Analysis (BA) MOOC related to career, while typical background goals involved time, cost, convenience, and trust. Together, these focal and background goals formed the active goal sets of those involved in the study. The most common subordinate goals used to reach these outcomes were MOOC enrolment and completion, certification, the acquisition of knowledge, and exploring future career and educational options. For those participants who later (that is, post-MOOC) established a new subordinate goal for university study, their original focal goal (e.g., career) typically remained unchanged but they often reported different perspectives on their background goals.

Another significant finding was the impact of the MOOC experience on participants’ relationship with the host institute. In general, the MOOC contributed to strong brand awareness as well as fostering a trust relationship with the host. This prompted many participants to later assert that they would include this same host (CSU) in their consideration set for future university choice. Later in this chapter these results are used to assess support for the research propositions, which deal with the active goals of those enrolled in a MOOC, and the impact of the MOOC experience on their future goals and consumption choices.
7.2 Overall Findings

In this section the findings of the qualitative study are presented. Table 7.1 gives an overview of the main themes that emerged during the interviews. This study was conducted from a goal standpoint; hence, many of these themes have been categorised against the various goal types from the literature (that is, as relating to focal, subordinate, background, or learning goals). In addition, two other categories emerged from the axial coding stage: One concerning the educational background and mindset of participants, and another used to capture the main themes and sub-themes around future consumption choices regarding education. Note that within Table 7.1 below, sub-themes are listed in brackets next to the relevant primary themes.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes (sub-themes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Mindset</td>
<td>Continual learning</td>
</tr>
<tr>
<td>Focal goals</td>
<td>Career (course content, curiosity)</td>
</tr>
<tr>
<td></td>
<td>Knowledge (course content, curiosity)</td>
</tr>
<tr>
<td>Subordinate goals</td>
<td>MOOC enrolment</td>
</tr>
<tr>
<td></td>
<td>MOOC completion</td>
</tr>
<tr>
<td></td>
<td>University enrolment (course content)</td>
</tr>
<tr>
<td></td>
<td>Knowledge (course content, curiosity)</td>
</tr>
<tr>
<td></td>
<td>Certification (course content)</td>
</tr>
<tr>
<td></td>
<td>Taster (career, education, institution)</td>
</tr>
<tr>
<td>Background goals</td>
<td>Convenience (flexibility, online)</td>
</tr>
<tr>
<td></td>
<td>Cost, cost-benefit</td>
</tr>
<tr>
<td></td>
<td>Time</td>
</tr>
<tr>
<td></td>
<td>Trust (reputation, relationship)</td>
</tr>
<tr>
<td>Learning Goals</td>
<td>Mastery</td>
</tr>
<tr>
<td></td>
<td>Performance</td>
</tr>
<tr>
<td>Consumption Considerations</td>
<td>Awareness (brand, product)</td>
</tr>
<tr>
<td></td>
<td>Choice</td>
</tr>
<tr>
<td></td>
<td>Consideration</td>
</tr>
</tbody>
</table>

Table 7.1
Summary of pre- and post-MOOC findings using goal-based categorisation

In conducting the analysis, themes were assigned to the various goal categories according to the contextual meanings given to them by participants. Not only did this allow themes to be viewed from an overarching goal perspective, it also helped to explicate the various usages of the same, or similar, themes across different goal types and phases of the goal life-cycle. For example, ‘acquiring knowledge’ was discussed by several people. However, ‘knowledge’ was in one instance given as the focal goal for undertaking the MOOC, while at other times it
clearly represented a subordinate goal (i.e., participants said that acquiring knowledge about business analysis would help them reach a career goal).

These various meanings are discussed in the next section. Since this study was longitudinal, in the discussion which follows the designated categories and themes have been subdivided according to whether they relate to participants’ pre or post-MOOC opinions. Since certain categories and themes did not feature prominently across both phases of the study, some are only discussed within the relevant context (i.e., pre or post MOOC).

### 7.2.1 Pre-MOOC

In this section, the categories and themes listed in Table 7.1 are discussed from a pre-MOOC perspective.

#### 7.2.1.1 Category: Educational Mindset

*Theme: Continual Learning*

The survey given to participants before the start of the MOOC asked them to list their highest educational achievement. Consistent with previous research on MOOC demographics (e.g., Christensen et al., 2013; Emanuel, 2013; Zheng et al., 2014) the result showed a highly-educated audience, with a large-proportion of degree-qualified students. It was only during the interview process, however, that the scope of participants’ educational backgrounds became fully clear. Of the 19 individuals involved with the study, 8 of them (42%) had 2 or more university degrees, while many others had completed several vocational courses, MOOCs and industry certificates (see Table 7.2). This cohort was therefore very educationally active, suggesting a strong commitment to continual learning.
<table>
<thead>
<tr>
<th>ID</th>
<th>Descriptor</th>
<th>University Qualifications</th>
<th>Other Qualifications</th>
<th>Previous MOOCs Attempted</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Male, 41-45</td>
<td>Bachelors</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postgraduate Certificate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P2</td>
<td>Female, &lt;30</td>
<td>Bachelors</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postgraduate Diploma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td>Male, 36-40</td>
<td>None</td>
<td>Certificate (enrolled)</td>
<td>3</td>
</tr>
<tr>
<td>P4</td>
<td>Male, 31-35</td>
<td>Bachelors</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>P5</td>
<td>Female, 31-35</td>
<td>None</td>
<td>Certificate</td>
<td>0</td>
</tr>
<tr>
<td>P6</td>
<td>Male, 61+</td>
<td>Masters (2)</td>
<td>Multiple short training courses</td>
<td>0</td>
</tr>
<tr>
<td>P7</td>
<td>Male, 41-45</td>
<td>Bachelors (Hons) Masters (enrolled)</td>
<td>Diploma</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Advanced Diploma</td>
<td></td>
</tr>
<tr>
<td>P8</td>
<td>Female, 31-35</td>
<td>Bachelors</td>
<td>Short university training course</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Various short training courses</td>
<td></td>
</tr>
<tr>
<td>P9</td>
<td>Female, 36-40</td>
<td>Bachelors</td>
<td>Diploma</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Short training courses (2)</td>
<td></td>
</tr>
<tr>
<td>P10</td>
<td>Male, 46-50</td>
<td>Bachelors</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>P11</td>
<td>Male, 51-55</td>
<td>Masters</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>P12</td>
<td>Male, 61+</td>
<td>Bachelors</td>
<td>Industry Certifications (2)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Masters</td>
<td>Various short training courses</td>
<td></td>
</tr>
<tr>
<td>P13</td>
<td>Male, 51-55</td>
<td>Bachelors</td>
<td>Various short training courses</td>
<td>0</td>
</tr>
<tr>
<td>P14</td>
<td>Male, 36-40</td>
<td>Bachelors</td>
<td>Various professional development courses</td>
<td>3</td>
</tr>
<tr>
<td>P15</td>
<td>Male, 31-35</td>
<td>None</td>
<td>Diploma</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Industry Certification</td>
<td></td>
</tr>
<tr>
<td>P16</td>
<td>Female, 41-45</td>
<td>Bachelors (enrolled)</td>
<td>Diploma (2)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Masters</td>
<td>Advanced Diploma</td>
<td></td>
</tr>
<tr>
<td>P17</td>
<td>Male, 56-60</td>
<td>Bachelors</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postgraduate Diploma Masters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P18</td>
<td>Male, 31-35</td>
<td>Bachelors</td>
<td>Short university training course</td>
<td>2</td>
</tr>
<tr>
<td>P19</td>
<td>Male, 56-60</td>
<td>Bachelors</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Table 7.2

Educational background of participants

This desire for continual learning was frequently expressed throughout the interviews:

“I actively seek to expand knowledge. So whether it be internal training on new systems or external ones…I’m open to continuing my education.” [P8 - Female, 31-35]

“I’m an educator myself, or that’s my background….So continual learning is an important thing for me.” [P16 - Female, 41-45]

It has already been noted by Christensen et al. (2013) that most MOOC students are degree-qualified, and by Yuan and Powell (2013) that many also have a commitment to lifelong learning. The present research confirms these views. A corollary of this is that future
university study does not appear to be inconsistent with current MOOC enrolment, even for those with a degree, since it clearly does not run counter to a continual learning philosophy.

7.2.1.2 Category: Focal Goals

Recall from Chapter 3 that a focal goal represents the overarching reasons why an individual chooses to pursue certain lower-level subordinate activities (Bagozzi & Dholakia, 1999). Focal goals are distinct from background goals, which may influence the goal-oriented behaviour of individuals but do not in themselves represent the core reasons for pursuing an action (Kopetz et al., 2011). In this study, only two types of focal goal were reported: One relating to career, another to the acquisition of knowledge for its own sake.

Theme: Career (advancement, clarification)

Most participants gave a career-related goal for enrolling into the Business Analysis MOOC. Indeed, only 1 of the 19 interviewees said that they enrolled for the sole purpose of acquiring knowledge, without any reference to their current or future work duties. This is consistent with the findings of Christensen et al. (2013) who surveyed students enrolled in the University of Pennsylvania’s 32 MOOCs run through Coursera, and concluded that the main audience were “young, well-educated males who are trying to advance in their jobs” (p. 8).

On the surface, asserting career goals as the major reason for enrolment appears to conflict with several other studies that give additional reasons – including cost, credentialing, networking opportunities, and curiosity (Carr, 2013; Zheng et al., 2014). However, while some of these alternate motivations were mentioned by participants, the interview process showed that they were relevant only insofar as they related to the overarching career goal. Hence, for this study, these additional motivations have been categorised as either background or subordinate goals, or as relating to other specific goals (e.g., ‘curiosity’ typically relates to a knowledge acquisition goal). Such different goal types are treated in later sections.

Despite the finding that ‘career’ represented the main goal of most participants, it is important to remark that most were not currently working as a formal business analyst. This is perhaps unsurprising given the introductory nature of the MOOC. For example, while some (e.g., P16) had recently been seconded into a BA-like role, others (P4, P8, P13, P14, P17, P19)
had a different job description (e.g., Project Manager) that included BA elements which they were seeking to clarify or validate. Other participants (P11, P12) were using the course as a way to work more effectively with BAs; and yet others (P3, P5, P9, P10, P15) hoped to enter the field of BA (or similar) in the future. Thus, what it meant to attain a career goal was often context dependent.

Looking at specific comments, for some it was a way to gain the knowledge and skills needed to do their current job more effectively:

“I’m at a point in my career when I’m keen to do some more professional development...A lot of the work I do involves both project management and business analysis.” [P14 - Male, 36-40]

“I’ve recently been seconded into our project management office...This MOOC is pertinent because my new role is all about information gathering and BA.” [P16 - Female, 41-45]

For others, it was about gaining further clarity of the BA role, particularly where it was a component of their current job:

“I’m pretty much working as a business analyst anyway - it’s a large part of my work...so it’s really about trying to get a definition of what a business analyst is....” [P13 - Male, 51-55]

“I’ve been in the IT area for about 25 years and I have done quite a bit of business analysis so I thought I’d see how it’s covered in the short course...The most important thing is to get an overview of the formal business analysis function.” [P17 - Male, 56-60]

Several others spoke about the need to better interface with business analysts via their current, non-BA role:

“I work in the IT industry but not in the BA profession. It’s one of the major professions in the industry, along with project management. So it’s an area that I wanted to learn more about, mainly to relate to the people who do those roles.” [P11 - Male, 51-55]

“Because often in my role I have a team of BAs working for me, I wanted to understand from a theoretical and teaching point of view what is the role and expectation.” [P12 - Male, 61+]

Another participant spoke about the need to formalise his BA credentials through the MOOC:

“It’s close to the work function I’m doing now. I did an undergraduate degree in marketing a few years ago. But my work functions are much closer to business analysis. There’s a need to really formalise the work I’ve been doing - because while internally people know what I do, externally it’s hard to convey that.” [P4 - Male, 31-35]
Several other participants, while not currently working in BA-related role or even interfacing with BAs, did the MOOC to either investigate the role for possible future employment (P5, P9); or, already convinced of its suitability, to gain knowledge and credentials to help secure such employment (P3, P10, P15):

“The field I’m trying to get into is project management...So I thought maybe an introduction to BA would be a good thing to help me achieve my goal....” [P3 - Male, 36-40]

“I’m doing the MOOC because I now want to change my focus to something more in the Project Management or Business Analyst disciplines.” [P15 - Male, 31-35]

This strong focus on the career aspect of MOOCs has been noted by several other scholars (e.g., Christensen et al., 2013; Freeman & Hancock, 2013). As an example, Liu, Kang, et al. (2014), reporting on a Data Visualization MOOC run through the University of Texas, found that 290 students (71%) did the course because of their current job, while 161 (39%) did it to investigate a future career path³. The current study supports these findings, with the additional observation that those who undertake a MOOC to investigate a career are also likely to explore additional education pathways (including university study) if they decide that such a career is appropriate. Thus, of the participants who stated that they were using the BA MOOC to investigate or pursue new career options, all of them (P3, P5, P9, P10, P15) later (that is, post-MOOC) said that they were considering enrolment in a formal business analysis or related course with the host institute (CSU).

Theme: Knowledge (course content, curiosity)

As noted above, only one participant cited the acquisition of knowledge (motivated by curiosity) as the primary driver for enrolment:

“I’m motivated more by curiosity; I usually throw the qualifications away. My aim ... is basically to do absolutely everything that’s available.” [P6 - Male, 61+]

For this participant, ‘knowledge’ represented his focal goal, rather than career. This view, however, was the exception. Notwithstanding, it should be noted that different MOOC topics may encourage students with different focal goals to enrol. Thus, while career has likewise

³ This survey allowed multiple responses, which is why the combined percentages exceed 100. Within this same survey, doing the MOOC for career reasons accounted for 2 of the top 3 responses. Also in the top responses was ‘to learn more about the topic because of personal interest’ (67%).
been mentioned by Carr (2013), Christensen et al. (2013), and Zheng et al. (2014) as an enrolment motivator, Christensen et al. (2013) cautioned that this may not be the case for humanities-based MOOCs, after finding that only a minority do such courses for job-related reasons. Within the current study this was also flagged by two participants (P2, P16), who said that while the BA MOOC was done for career reasons they may do other courses to satisfy a knowledge (and curiosity) focal goal:

“I’ve been looking at so much study, and thinking some of it would be really interesting, but I know that it wouldn’t aid my career whatsoever; it would just be for personal curiosity. [The BA MOOC] is definitely for the career but I do consider other study options as just a personal development.”  
[P2 – Female, <30]

For these reasons, the career focus of this study should be seen as a possible limitation; that is, since it dealt with a career-oriented MOOC, it is likely to have been over-represented with individuals focused on job-related outcomes.

7.2.1.3 Category: Subordinate Goals

Subordinate goals concern those actions which, when completed, are thought to lead to the focal goal. Within the literature, subordinate goals are sometimes termed ‘means’ (Kruglanski et al., 2013; Shah & Kruglanski, 2000) and are defined as “activities whose completion brings about goal attainment” (Kruglanski et al., 2013, p. 87). While a career focal goal was broadly shared by most participants of the study, the nature of this goal varied. As a result, several different subordinate goals were established to reach this goal.

The most common links discovered between subordinate and focal goals are depicted in Figure 7.1. Here, focal goals are represented by circles and subordinate goals by rectangles. The most typical subordinate goals involved MOOC enrolment, completion, certification, and the acquisition of knowledge. Some also defined a subordinate goal of using the MOOC to learn more about the BA profession, about future educational pathways, or about the institute hosting the MOOC. It is important to note that these various approaches were not seen by participants as mutually exclusive. For example, several intended to follow the (1) MOOC Enrolment → (2) MOOC Completion → (3) Knowledge → (4) Certification pathway to their career goal, while also intending to use the course as a taster for future educational
choices relevant to their career (and thus also following the pathway: (1) MOOC Enrolment → (2) MOOC Completion → (3) Knowledge → (5) Taster → (6) Career).

![Diagram showing the pathway: (1) MOOC Enrolment → (2) MOOC Completion → (3) Knowledge → (5) Taster → (6) Career.]

**Figure 7.1**

Common focal and subordinate goals of participants

**Themes: MOOC Enrolment, Completion**

Enrolment in the MOOC represented an implicit subordinate goal for all participants; that is, they enrolled as a first step towards their focal goal, which was related to either career or knowledge (§7.2.1.2). Clearly, enrolment of itself would not achieve this outcome; so, for most students, completing the MOOC (and in some cases the final exam) was seen as a necessary step towards focal goal attainment:

“...I’d like to come out of it and get something as well. For me, I want to sit the exam and get something out of it.” [P7 - Male, 41-45]

“I want to see how I enjoy it, how I go with it. I haven’t really studied at a university level for a while and your mind gets rusty, so I just wanted to see if I can get through it OK.” [P13 - Male, 51-55]
Themes: Knowledge (course content, curiosity), Certification (course content)

As shown in Figure 7.1, MOOC completion was seen as a subordinate goal that led to knowledge acquisition. For one participant (P6), as noted above, gaining such knowledge was the primary reason for doing the course:

“The actual knowledge and learning process is the important thing – the rest of it [e.g., the certification] is just fluff.” [P6 - Male, 61+]

For this individual, the subordinate-to-focal-goal pathway (Figure 7.1) can be summarised as (1) MOOC enrolment → (2) MOOC completion → (7) Knowledge.

For several others (P1, P11, P12, P19), acquiring content knowledge in itself, irrespective of any certification, was seen as leading directly to a career focal goal. Such participants tended to belong to an older age group (respectively: 41-45, 51-55, 61+, 56-60) or had secure employment and did not value the certification highly. These individuals followed the pathway of (1) MOOC enrolment → (2) MOOC completion → (3) Knowledge → (6) Career. Indicative comments from this group include:

“If I was applying for jobs the credentialing would be useful...But for me personally I have a job, it’s pretty stable. So it’s mostly about the additional skills.” [P1 - Male, 41-45]

“At this stage of my career I’m not particularly looking for another couple of initials after my name. It’s really about gaining that extra knowledge....” [P19 - Male, 56-60]

In contrast, most others valued both the knowledge as well as the certification that came with it, following the pathway of (1) MOOC enrolment → (2) MOOC completion → (3) Knowledge → (4) Certification → Career (6). Here, both the knowledge gained and the certification were seen as leading to the focal goal:

“Getting the certificate at the end will prove that I’ve acquired the knowledge. Then I guess it’ll be put to the test when I actually go to find a job.” [P9 - Female, 36-40]

“I want the certificate but also the substance behind it. I want to be able to put the certification on my resume but I also want to talk the talk and apply the processes and techniques that come from it.” [P14 - Male, 36-40]

This dual attitude towards certification (with some valuing it, and others indifferent) was likewise noted by Cooper and Sahami (2013) in their reflections on Stanford’s Engineering
MOOCs, where they observed that, while many students were content to do courses that did not lead to a certification, there were others for whom it was important to “receive external validation/certification of their learning” (p. 29). Aligned with this latter view, gaining a final certificate of completion was mentioned as important by 14 of the 19 participants (74%) from the current study.

Theme: MOOC-as-Taster (career, education, institute)

At the outset of the MOOC, some participants spoke of it as a taster for a possible career or educational goal, in addition to a knowledge pathway. These individuals wanted the knowledge to achieve some career outcome but were also using the course content and their MOOC experience to plot out future career or educational choices. Overall, participants spoke about three different MOOC-as-taster strategies: One involved testing the career (via the course content) for possible future employment; another with gauging their own suitability for further education in a similar content area; and a third with testing the suitability of the host institute for future university enrolment. These different strategies were not mutually exclusive, with several participants adopting all three.

For some (P5, P9) the MOOC functioned as a taster for the business analyst career itself, with further educational and career options to be explored later, contingent on their MOOC experience. Here, the knowledge gained from the MOOC led to the fulfilment of the focal goal, which was to learn about BA as a career. It set the scene for future goal-setting with respect to this same career:

“I am coming to that point in my career, and I’m not sure if I want to continue doing what I’m doing or something else…. [The MOOC is] testing out where I want to go in the future.” [P5 - Female, 31-35]

“Business analysis is what I think I have a passion for… I’m a bit unsure of whether I am right for the space and I thought doing a short course would just give me an overview of what it’s about so I can go ‘yes, that’s for me’ or ‘no, it’s not’ and pursue a different direction.” [P9 - Female, 36-40]

Multiple participants (P3, P5, P11, P13, P14, P17, P18) also spoke about the MOOC as a taster for their future educational options (not necessarily involving university); in particular, they
were using it to assess whether they wanted to fully commit to a BA (or similar) educational pathway:

“With MOOCs it’s a bit of a try before you buy….you’re looking at thousands of dollars to complete certificates and get credentials. You need to know that it’s something that’s going to be of interest to you.” [P3 - Male, 36-40]

“A MOOC is short, sharp and gives you a chance to find out whether you like it or not without a massive two or three year commitment. So I think it’s a great way to test and learn – and either continue on the same study pathway or move to something else.” [P11 - Male, 51-55]

And finally, some (P2, P5, P7, P14) also spoke about using the course as a prelude to possible enrolment with the host institute:

“You’re testing the university’s attitudes towards students, their ability to deliver online content to someone who isn’t anywhere near the university. I think these are important things to trial.” [P7 - Male, 41-45]

“I’m at the point where I’m wanting to invest in something substantial and I’m trying to work out what that is. Can CSU be that provider? So I guess it’s a test of what CSU’s education service is like.” [P14 - Male, 36-40]

Using MOOCs to test the quality of an institution’s educational offerings is an example of free product testing, a topic that was discussed earlier in the context of software services (§4.5). As a marketing technique, free sampling has been shown to decrease the risk for consumers when selecting a product or service (Lapersonne et al., 1995), thereby increasing the likelihood that the tested brand will be considered for purchase (Cheng & Tang, 2010; Hauser, 2014). The MOOC-as-taster approach also gave participants the opportunity to establish a trust relationship with the host institute, a theme discussed in the next section.

7.2.1.4 Category: Background Goals

Since goals are not usually pursued in isolation, it is instructive to consider them with reference to the other objectives they relate to (Kopetz et al., 2012). Accordingly, the current section discusses the background goals of participants. Later these background goals are combined with the focal goals above (§7.2.1.2) to create a typical active goal set for those involved with the study.

Background goals impact on the choice of pathway used to reach a focal goal but are not in themselves the main motivation for achievement (Kopetz et al., 2011). Within the current
study, the background goals of participants were those that influenced their decision to do this particular MOOC (in preference to some other MOOC, a university course, etc.) but were not the principle drivers for enrolment.

To classify these background goals, participants were asked about their main goal(s) for doing the course, and then about any additional goals. In general, individuals’ background goals dealt with objectives such as convenience, time, cost, and studying with a reputable, trustworthy institution. Unlike other studies (e.g., Carr, 2013; Christensen et al., 2013; Zheng et al., 2014) where both focal and background considerations are aggregated into an overall list of ‘reasons for enrolment’, in this thesis they are examined separately. Such an approach allows deeper insight into why students do MOOCs, and the relationship between their various motivations.

Theme: Convenience (flexibility, online)

Most participants who spoke about the convenience of MOOCs conflated this with online, flexible delivery, which is why these themes are linked and discussed here together. The convenience of doing online study at a time and place of one’s choosing was a frequently-mentioned background goal (P1, P3, P12, P14), and was often given as a reason for choosing the Business Analysis MOOC (and MOOCs in general) in preference to other modes of learning. This finding is supported by an earlier study from Yuan and Powell (2013), who found that the format of MOOCs was particularly attractive to those “with barriers to traditional education options” (p. 9). Comments implying this same view include:

“I really need to get up to speed on a lot of things, and that’s why I’m taking courses generally. Specifically why MOOCs – they’re very convenient....I was actually listening to some MOOC lectures last night – around 9 at night. That just wouldn’t work with a conventional course.” [P1 - Male, 41-45]

“This course was more convenient for me [than a university course]. As long as I’ve got computer access it doesn’t matter where I am in the world....” [P12 - Male, 61+]

For others, the notion of convenience was more closely associated with a flexible learning approach, and the opportunities this afforded in the face of time constraints:

“...It’s self-paced in the sense that you don’t need to dedicate 6 hours a day to doing the course.” [P3 - Male, 36-40]
“I have several young children so I like the flexibility in learning....” [P14 – Male, 36-40]

The attraction of learning freedom and autonomy was similarly noted in a study of undergraduate MOOC students by Hao (2014). In contrast to this finding, however, Ong and Grigoryan (2015) argued that courses which require hands-on instruction (such as nursing) may not be conducive to the MOOC format, notwithstanding convenience. Such a concern was also expressed by the following participant:

“I think there’s probably a place for both university and MOOCs. It depends on what type of skill you’re trying to get. So in other courses that I’ve done – on leadership, for example – I can’t imagine that I could do that type of stuff online because it needs for people to get involved, and activities as part of the group to put those skills into practice.” [P14 – Male, 36-40]

There were several others (P15, P16, P18) who felt that the flexibility of an online MOOC (in contrast to a traditional delivery format) could be viewed as a trade-off between convenience, the quality of instruction, and the prestige of the award:

“Perhaps in the next 5-10 years MOOCs will become the default....Until that time, there are still a lot of people in management positions that hold that traditional mindset where they believe you can’t substitute the on-campus experience.” [P15 – Male, 31-35]

“[With MOOCs] you get the flexibility. And that’s great because you can fit it around your life...But I have a sense that I’m missing out on some of the collaborative aspects of study – you know, being in a room with other people.” [P18 – Male, 31-35]

This trade-off aspect is an example of the cost-benefit approach to MOOCs, a theme discussed next.

Themes: Cost and Cost-benefit

The fact that most MOOCs are free is often given as a reason for their high demand (Clow, 2013; Zheng et al., 2014); but lack of cost may be more appropriately seen as a secondary consideration (Hew & Cheung, 2014). Indeed, within this study, the absence of cost was never given as the main reason for enrolment; instead, it was spoken of as an added (albeit powerful) incentive. Cost is therefore listed here as a background goal. Comments supporting this view include:

“The fact that it was free was... a huge incentive. A short uni course or even a short course within your industry is going to cost you 2 grand at least.” [P7 - Male, 41-45]
“I’m doing the MOOC because I want to change my focus [to the] Project Management or Business Analyst disciplines. And the fact that it’s free didn’t hurt.” [P15 - Male, 31-35]

Other comments showed evidence of a direct cost comparison between MOOCs and their alternatives:

“…with Coursera…you can do certain things if you pay. And what you pay is very nominal. Around $65. I’m used to paying thousands for a course. So $65 – you know, that’s almost impulse buying material.” [P1 - Male, 41-45]

“…I’ve been looking at getting the CAPM project management certification…You can do that through some professional institutions … and it might cost you a few thousand dollars. And you can also do it on Udemy for $35!” [P14 - Male, 36-40]

Rather than considering absolute cost, some participants evaluated MOOCs from a cost-benefit standpoint. Discussions around this point show that the attraction of MOOCs on the basis of low (or lack of) cost may be more nuanced than previously thought; and, as with value judgments generally, might only be fully understood from within an individual’s goal context (Sánchez-Fernández & Iniesta-Bonillo, 2007). Thus, for several people (P4, P10, P12, P13) the value proposition extended beyond the fact that the MOOC was free to a more complex assessment of utility, one that took into account the investment of time and effort alongside the likely career benefits that might accrue from completion:

“…..if you’re proactively searching for your own professional development, and making time for that, I think employers would see that as a sign of enthusiasm and motivation to further your development.” [P4 – Male, 31-35]

“Typically I try to get good value for money with a reputable and recognised institution.” [P12 – Male, 61+]

Another participant was less certain about the extrinsic value of MOOC certification but still spoke of his enrolment in cost-benefit terms:

“I want any study to be beneficial to me with the time that I invest…I think the MOOC certificate is nice to have – but it won’t necessarily demonstrate a lot. They are not recognised very widely. But as you know the world around the format of education is changing and so, who knows, in 5 years’ time an employer’s perception of value around this might change.” [P14 - Male, 36-40]

Theme: Trust (reputation, relationship)

The reputation of the host institute (and in some cases, the instructor) has previously been noted as an incentive for MOOC enrolment (Alraimi, Zo, & Ciganek, 2015; Girard, 2014). One
reason for this could be that a higher reputation implies both greater course quality as well as increased social prestige and employment outcomes. Closely linked with the concept of trust is reputation, a key theme that emerged during interviews. As noted by McKnight, Choudhury, and Kacmar (2002), the reputation of a firm may be one criterion used by individuals to establish the trust needed to engage in any meaningful commercial relationship.

Within this study, trust acted as an enrolment incentive in several ways. There were those who already had a trust relationship with the MOOC host, either through previous MOOCs (P12, P14, P17) or as alumni of the institute (P9, P11):

“...I highly recommend Charles Sturt because I did all my university study there via distance.” [P9 – Female, 36-40]

“This is the third MOOC I’ve done with CSU and IT Masters. I did a marketing and a digital forensics one last year.” [P17 – Male, 56-60]

Others (P1, P5, P8, P16) enrolled at the suggestion of trusted others:

“...my colleague told me about this course, where I could look at what a business analyst does....” [P5 – Female, 30-25]

“[My] project leader said there’s a business analyst MOOC running and ... it’s going to be really valuable in terms of what we do in project management....” [P16 – Female, 41-45]

Others (P4, P7) also mentioned that they were encouraged to enrol because of some level of familiarity with the institution and its reputation:

“The attraction for this one was that it was run by Charles Sturt and I knew about this university.” [P7 – Male, 41-45]

Concerning trust, Gefen (2000) observed that it is “an important factor in many social and economic interactions involving uncertainty and dependency – especially those concerning important decisions and new technology” (p. 726). Further, where there is limited risk, trust is easier to establish than for scenarios that are high-risk (McKnight et al., 2002). These observations align with the MOOC-as-taster approach, where participants use a low-risk MOOC strategy (one low in cost and time commitment) as input into higher-risk decision-making:
“I saw that [the MOOC] was 4 weeks with the 5th week being an exam, and I thought, well 5 weeks isn’t a lot of time to dedicate so to speak but it’s enough time to learn what a business analyst does to see if I enjoy it and go from there.” [P5 - Female, 31-35]

“There’s no money to pay upfront – it means I can get a taster for the type of study that needs to be done before outlaying a lot of money and finding out it wasn’t for me.” [P17 - Male, 56-60]

“...it’s a low cost way of testing out the content and actually seeing for sure if that’s what I want to do or not.” [P18 - Male, 31-35]

**Theme: Time**

Time was a frequently-mentioned theme. For some, the (short) length of the MOOC acted as a strong enrolment incentive:

“[The MOOC] basically fitted into a 5 week slot that I’m expecting to be fairly quiet.” [P6 - Male, 61+]

“Here’s a course that interests me, it is short – fits the time frame – it’s free and it’s with Charles Sturt, which is someone I’m looking at.” [P7 - Male, 41-45]

For others, the time needed to complete the MOOC gave it an advantage over lengthier options:

“[I] don’t need to ... take a huge amount of employer or employee time to go off and do a short course.” [P3 - Male, 36-40]

Participants were also asked prior to the MOOC what, if anything, was likely to hinder completion. Most responses involved a lack of time:

“What would stop me from completing this MOOC would be time pressures....” [P3 - Male, 36-40]

“If anything stops me it will be lack of time. But I’ve made a commitment to do this so hopefully I won’t be forced to burn the candle too much at both ends.” [P19 - Male, 56-60]

**7.2.1.5 Category: Learning Goals**

**Themes: Mastery and Performance**

The characteristics of a mastery versus performance orientation have been defined by DeShon and Gillespie (2005) as follows: “If individuals seek to develop or improve competence, they are likely to adopt a mastery goal. If, alternatively, they seek to
demonstrate competence to others, then they are likely to adopt a performance goal.” (p. 1097). During the pre-MOOC interviews, participants were asked about their learning approach; in particular, whether they were motivated more by curiosity and personal development or by the recognition that educational achievement brings. This was done to establish a baseline of learning styles at the outset of the course. Similar questions were asked post-MOOC (see §7.2.2.4), allowing the author to investigate if the MOOC experience prompted a learning-style change, and the implications of this.

Although most participants identified a career goal for doing the MOOC (see §7.2.1.2), very few admitted to being wholly performance-driven with respect to learning style. Some were motivated more by curiosity and personal development concerns (P1, P5, P6, P7, P8, P11, P12, P16, P19). For these individuals, the knowledge gained from the MOOC was intended to improve their career performance or to clarify career direction, with limited emphasis on external validation:

“I’m definitely focused mostly on the curiosity side of things, because this has nothing to do with my current job. Going into this field would almost require me to get a new job. So definitely curiosity and personal development.” [P5 – Female, 31-35]

“I want to be able to achieve a clear understanding of what I’m doing at the moment, and if I’m doing it using the best method possible.” [P8 - Female, 31-35]

For some of those above (P5, P7, P8), the assertion of being motivated largely by curiosity and personal development appears in conflict with their earlier statements, where they said that the MOOC certification was a valuable way to prove their achievements (§7.2.1.3). This apparent inconsistency, however, is likely to come down to a question of salience, with these participants governed more by mastery elements but not exclusively by them. Indeed, learning-goal researchers argue that very few individuals subscribe to just one learning approach (Barron & Harackiewicz, 2001; DeShon & Gillespie, 2005; Pintrich, 2000). Thus, other participants spoke of having dual motivations that included both curiosity as well as performance-based measures, like credentialing, to further their career (P2, P3, P4, P10, P13, P14, P17):

“I’m driven both by curiosity as well as the credentialing.” [P14 – Male, 36-40]

“I’m doing it both to satisfy curiosity as well as to get the credential.” [P17 – Male, 56-60]
Changes in learning approach that occurred as a result of MOOC interaction are reported in section 7.2.2 as part of the post-MOOC analysis.

### 7.2.1.6 The Active Goal Set

While no single goal-set captures the focal and background goals of all those who did the Business Analysis MOOC, Figure 7.2 represents the most common scenario.

Within this figure, the active goal set consists of focal and background goals relating to career, convenience, cost, knowledge, time, and trust. These same goals represent the combined reasons for enrolment into the Business Analysis MOOC. Since these goals derive from all participants, it should be noted that they do not necessarily align with those held by any specific individual.

The focal goals (depicted in Figure 7.2 in bold font) represent the primary reasons for MOOC study: Career progression or career change, and the acquisition of knowledge. Since career or knowledge were not goals defined by participants abstractly, other concepts have been linked with them; namely, course content, as well as individual curiosity about such content. The background goals in Figure 7.2 (those in plain font) represent the reasons why this particular course, and the MOOC format in general, was chosen in preference to other study options – that is, because of cost and time considerations, the convenience of studying online, and issues relating to trust.
Given the co-active goals above (Figure 7.2), the Business Analysis MOOC represented a more appropriate pathway (subordinate goal) for most participants at the time of enrolment than did university. There were a variety of reasons for this (§7.2.1.4), including that MOOCs were perceived as more convenient and less costly, that they represented better value for time and money, that they were a cost-effective way of investigating future career and educational options, and that they were seen as a low-risk method of establishing an initial trust relationship with the host. It is clear that many of these same reasons do not, in themselves, preclude future university study. In fact, some (e.g., doing the MOOC to establish a trust relationship) are fully consistent with later university enrolment, while others – such as the cost-benefit return of MOOCs versus university – rely on individual assumptions that may be countered through a marketing and information session held as part of the MOOC itself. This observation is a point of difference between the current research and the earlier assertions of Sandeen (2015), who doubted whether degree-qualified MOOC students were actively seeking to attain yet further university qualifications.

Notwithstanding this difference, the goals listed here are otherwise consistent with those reported in other MOOC research. For example, career and knowledge-based motivations have been identified previously by a number of authors (e.g., Christensen et al., 2013; Zheng et al., 2014) while others have noted both lack of cost as well as the convenience of online learning as powerful enrolment incentives (Carr, 2013; Ong & Grigoryan, 2015; Yuan & Powell, 2013). The goal of studying with a trustworthy institution is less frequently mentioned in the literature; it was, however, considered important by Alraimi et al. (2015), who found that it was both an enrolment motivator for MOOCs as well as linked to higher satisfaction rates. As a concept, time is most often mentioned as a reason for not completing MOOCs (e.g., Zheng et al., 2014) although others have implied that it is also an enrolment incentive, one strongly connected to both convenience and flexibility (Davis et al., 2014; Smith & Eng, 2013).

Two other MOOC goals that often appear in the literature but which were not replicated in the current study relate to curiosity about the MOOC concept (Christensen et al., 2013; Hew & Cheung, 2014; Liu, Kang, et al., 2014), and networking with other students (Zheng et al., 2014). Concerning the former, many participants of this study had previously done MOOCs or some other form of online education (e.g., postgraduate study, industry certifications) and so
knew what to expect. Similarly, the goal of networking was rarely mentioned. This may have been because most participants were already employed and so had other means to establish their personal and career networks:

“[Networking] wasn’t the priority for me. I am in quite a large department so have networking capabilities here and throughout Brisbane.” [P8 – Female, 31-35]

“I’m not looking to create any networks at this stage because I have enough formal networks through my current employment.” [P17 – Male, 56-60]

Apart from these exceptions, the goals reported here align closely with those cited in the literature. However, unlike previous research, in this thesis the effect of the MOOC experience on these same goals – and the pathway that is used reach to them – is also examined. To pave the way for this approach, in the next section the initial goals of participants are linked to consumption considerations regarding university study.

7.2.1.7 Category: Consumption Considerations

Theme: Awareness

There has been little research to date on the impact of the MOOC experience on participants’ views of the host institute. To correct this omission, before the Business Analysis MOOC commenced participants were asked about their knowledge of Charles Sturt University. For 32% of them (P1, P2, P5, P13, P18, P19) there was little, if any, brand recognition. Some indicative comments include:

“I know there is a university linked to the MOOC but I haven’t done any research into it.” [P2 - Female, <30]

“This is the first time I’ve heard of this university.” [P5 - Female, 31-35]

“I know very little. Can you remind me which university it is again?” [P19 - Male, 31-35]

For others there was modest awareness, with 26% (P4, P8, P10, P15, P16) able to recall basic details, such as the fact that CSU is a regionally-based institution with a strong online/distance education presence:

“...I know they do offer distance learning and online education and also offer really flexible approaches to postgraduate study....” [P4 - Male, 31-35]
“A distance education, online university – otherwise, I was not fully aware of it.” [P10 - Male, 46-60]

Each of the remaining participants had a deeper understanding of the host: Some knew of specific courses run by Charles Sturt University (P7, P15), while others had established a relationship with CSU through previous MOOCs (P12, P14, P17) or were alumni (P6, P9, P11).

**Theme: Consideration**

In addition to gauging awareness, participants were asked during the pre-MOOC interview whether they were planning enrolment into a university course (Table 7.3); and, if so, whether they would consider Charles Sturt University as their provider (Table 7.4).

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering enrolment at university in the future</td>
<td>5 (26.3%)</td>
<td>P6, P7, P8, P12, P15</td>
</tr>
<tr>
<td>Considering enrolment at university in the future, but only contingent on the MOOC experience</td>
<td>9 (47.4%)</td>
<td>P2, P3, P5, P9, P13, P14, P16, P17, P18</td>
</tr>
<tr>
<td>Not considering enrolment at university in the future</td>
<td>5 (26.3%)</td>
<td>P1, P4, P10, P11, P19</td>
</tr>
</tbody>
</table>

**Table 7.3**

*Future university enrolment*

While the results in Table 7.3 look promising, such ‘consideration’ of university enrolment was typically expressed using non-committal language, suggesting that any *actual* enrolment was some way off, or that further convincing was needed:

“*University is something, I guess, that I would consider. It’s definitely something I am thinking about.*” [P3 – Male, 36-40]

“I probably would [consider future university enrolment]. I’ve only just finished my last one in November but I wouldn’t dismiss it.” [P9 – Female, 36-40]

“Ideally what I would like to do is to go back into a Masters of IT Management but my biggest restriction at the moment is a lack of funds.” [P12 – Male, 61+]

“I’m not discounting this IT Masters pathway….I was doing some research on my various university options…” [P15 – Male, 31-35]
Weak intentions were also apparent concerning CSU as a possible academic provider. Thus, while many of those considering university enrolment also said that they would consider CSU (Table 7.4) their language was often similarly non-committal:

“Enrolment with CSU would be considered. It would basically be a timing issue again – as in a Master’s degree is a lot of time commitment.” [P6 – Male, 61+]

“Probably the final decision [regarding a university] is going to come down to price and a bit of market testing as well.” [P13 – Male, 51-55]

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering enrolment at Charles Sturt University in the future</td>
<td>3 (15.8%)</td>
<td>P6, P8, P12</td>
</tr>
<tr>
<td>Considering enrolment with Charles Sturt University in the future, but only contingent on the MOOC experience</td>
<td>10 (52.6%)</td>
<td>P2, P3, P5, P7, P9, P13, P14, P15, P16, P17</td>
</tr>
<tr>
<td>Not considering enrolment with Charles Sturt University in the future</td>
<td>6 (31.6%)</td>
<td>P1, P4, P10, P11, P18, P19</td>
</tr>
</tbody>
</table>

Table 7.4
Future enrolment with Charles Sturt University

Concerning future enrolment with CSU (Table 7.4), of special interest were those who said that enrolment was contingent on their MOOC experience. Of these, several (P2, P5, P13) had little awareness of CSU or only modest awareness (P15). Moreover, as noted earlier (§7.2.1.4), some were intentionally using the MOOC to determine whether the host institute was a suitable educational provider:

“In Australia, you kind of go in blind to university. I went into uni straight out of school ... But now as I’ve grown up, I really should have aimed for a higher university, or a university that offered different services. And having a trial...it would have been like a bit of a taster for university itself....” [P2 - Female, <30]

“Every university has their own sales pitch, but being introduced through a MOOC – I’m sure it’s a reflection of how they run most of their courses. So just having that introduction not only to the course but to the university itself should be good.” [P5 - Female, 31-35]

In section 7.2.2.5, the impact of the MOOC experience on opinions of the host institute (in this case, CSU) is examined more closely, along with participants’ views about their future consumption choices regarding higher education.
7.2.2 Post-MOOC

In this section, the relevant categories and themes are discussed from a post-MOOC perspective. Focal and superordinate goals are reported first, followed by background and learning goals. The section concludes by looking at the influence of the course experience on individuals’ future consumption intentions. Despite this ordering, and as with the pre-MOOC analysis, it should be noted that goals may associate with each other laterally as well as hierarchically (Shah & Kruglanski, 2000). This means that, in the discussion which follows, there is not always a clear division between themes, either within single categories or across category boundaries.

7.2.2.1 Category: Focal Goals

Themes: Career, Knowledge

Once the Business Analysis MOOC finished, participants were asked about their next educational steps. Nearly all of them indicated that they intended to pursue a career goal through continued education:

“There’s further study coming my way….my aim is still to get a job in project management, utilising BA skills. That’s my end goal.” [P3 – Male, 36-40]

“I will probably do a Master in Business Analysis….Currently at work I do a lot of systems support and as part of that we look at the analysis of current projects.” [P8 – Female, 31-35]

“I will possibly do something more in the BA space.” [P16 - Female, 41-45]

Though a career goal was still active, for others (P7, P13, P17) it no longer involved the business analysis discipline:

“It’s probably the end of the line in terms of business analysis study. I certainly want to do more MOOCs….perhaps something in the project management space.” [P7 – Male, 41-45]

And finally, for those who used the MOOC as a taster to learn more about the business analysis discipline, greater clarity was obtained concerning their career goal:

“It’s almost like I’ve found my little home [BA] and I’m happy to stick there.” [P5 - Female, 31-35]
“...doing the course made me realise, ‘yes, I get this and it can make a huge difference’. And that’s what I want to do.” [P9 – Female, 36-40]

“...if that’s what business analysis is about, it may not be for me.” [P13 – Male 51-55]

Of those remaining, P6 (Male 61+) was still content to pursue a knowledge goal unrelated to his career (see §7.2.1.2), P11 (Male 51-55) and P18 (Male 31-35) did not continue with the MOOC and were unsure of their future study plans, while P12 (Male 61+) was considering either more career-based study or a course on computer forensics (an area not directly related to his work).

7.2.2.2 Category: Subordinate Goals

Theme: MOOC Enrolment, University Enrolment

The future educational goals of participants are given here in more detail. When asked about such goals, 63% said that they planned to do more MOOCs. Moreover, 84% were also considering university enrolment. These opinions align with the continual learning attitudes expressed in the first interview (§7.2.1.1). The change between participants’ original study plans and their post-MOOC plans are noted in Table 7.5, where newly-identified pathways have been marked with an asterisk.

<table>
<thead>
<tr>
<th>ID #</th>
<th>Descriptor</th>
<th>Possible Future Study Pathways Identified Pre-MOOC</th>
<th>Possible Future Study Pathways Identified Post-MOOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Male, 41-45 MOOCs</td>
<td>MOOCs</td>
<td>MOOCs</td>
</tr>
<tr>
<td>P2</td>
<td>Female, &lt;30 MOOCs University</td>
<td>MOOCs University</td>
<td>University</td>
</tr>
<tr>
<td>P3</td>
<td>Male, 36-40 MOOCs University</td>
<td>University</td>
<td>University</td>
</tr>
<tr>
<td>P4</td>
<td>Male, 31-35 MOOCs</td>
<td>MOOCs</td>
<td>MOOCs University*</td>
</tr>
<tr>
<td>P5</td>
<td>Female, 31-35 University</td>
<td>University</td>
<td>University</td>
</tr>
<tr>
<td>P6</td>
<td>Male, 61+ MOOCs University</td>
<td>MOOCs University</td>
<td>MOOCs University</td>
</tr>
<tr>
<td>P7</td>
<td>Male, 41-45 MOOCs University</td>
<td>MOOCs University</td>
<td>MOOCs University</td>
</tr>
<tr>
<td>P8</td>
<td>Female, 31-35 MOOCS University</td>
<td>University</td>
<td>University</td>
</tr>
<tr>
<td>ID #</td>
<td>Descriptor</td>
<td>Possible Future Study Pathways Identified Pre-MOOC</td>
<td>Possible Future Study Pathways Identified Post-MOOC</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>---------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>P9</td>
<td>Female, 36-40</td>
<td>Industry Certification MOOCs University</td>
<td>Industry Certification MOOCs University</td>
</tr>
<tr>
<td>P10</td>
<td>Male, 46-50</td>
<td>MOOCs</td>
<td>MOOCs University*</td>
</tr>
<tr>
<td>P11</td>
<td>Male, 51-55</td>
<td>MOOCs</td>
<td>Uncertain*</td>
</tr>
<tr>
<td>P12</td>
<td>Male, 61+</td>
<td>MOOCs University</td>
<td>MOOCs University</td>
</tr>
<tr>
<td>P13</td>
<td>Male, 51-55</td>
<td>Industry Certification University</td>
<td>University</td>
</tr>
<tr>
<td>P14</td>
<td>Male, 36-40</td>
<td>MOOCs University</td>
<td>MOOCs University</td>
</tr>
<tr>
<td>P15</td>
<td>Male, 31-35</td>
<td>MOOCs University</td>
<td>University</td>
</tr>
<tr>
<td>P16</td>
<td>Female, 41-45</td>
<td>MOOCs University</td>
<td>MOOCs University</td>
</tr>
<tr>
<td>P17</td>
<td>Male, 56-60</td>
<td>MOOCs University</td>
<td>MOOCs University</td>
</tr>
<tr>
<td>P18</td>
<td>Male, 31-35</td>
<td>University</td>
<td>Uncertain*</td>
</tr>
<tr>
<td>P19</td>
<td>Male, 56-60</td>
<td>MOOCs</td>
<td>MOOCs University*</td>
</tr>
</tbody>
</table>

Table 7.5
Pre versus post-MOOC intended study pathways

These findings show an increase in those considering a university pathway when compared with their pre-MOOC intentions (from 74% to 89%, or 3 additional participants). Those with newly-established intentions for university (P4, P10, P19) did not initially speak of such a pathway, nor were they using the MOOC as a taster. These intentions emerged, therefore, without any forewarning. In each case, individuals reported strong satisfaction with the convenience and interactivity of the MOOC:

“...what I really enjoyed were the supplementary materials – you know, the 10-15 minute podcasts. They really helped....And I really liked the readings that came along with the course....My interest in university has certainly been stimulated.” [P4 – Male, 31-35]

“I feel like I tested the online environment with this university. And for me, online study...is the only way to go....I liked the fact – and this is absolutely critical – that there was a bit of interaction between different students on the forums. This has to keep going. When Coursera changed from their old platform all that stopped.” [P10 – Male, 46-50]

“...those audio podcasts were really good, I thought they were excellent. And the presenter was fantastic. He knew his stuff. A very high quality of presentation....I’m definitely a warm contact.
I would just go straight to CSU...because I’ve tried the real thing and it’s been a very positive outcome.” [P19 – Male, 56-60]

The figures that appear in Table 7.5 do not give the whole story regarding an increase in intention to study at university. There are two main reasons for this. Firstly, for at least two of those (P12, P15) who originally said that university might be considered, the strength of their intentions strongly increased between the pre- and post-MOOC interviews. And secondly, for those using a MOOC-as-taster strategy (§7.2.1.3), their initial plans regarding university were only conditional on the MOOC experience, such that any post-MOOC intentions for university were always likely to be more definite. Those using a MOOC-as-taster strategy are considered further below.

Theme: MOOC as a Taster (Career, Education, Institute)

Recall that there were multiple participants using the MOOC to see if business analysis was a suitable future career, to determine their educational options, and to assess CSU for possible enrolment. In some cases, each of these taster options were linked, such that confirmation about career direction also led to the planning of educational pathways as well as to thoughts about institutional choice.

As evidence of such linking, the following participants (P3, P5, P9) were using the MOOC to determine career suitability but afterwards also expressed an opinion about their future educational direction and/or choice of an institution:

“...my aim is still to get a job in project management, utilising BA skills...I had already decided that university study is something I should be considering. But it was good to do the MOOC to see the content that Charles Sturt offers....I would look at Charles Sturt as a definite possibility....” [P3 – Male, 36-40]

“...I now want to get a degree in this area...I'm really just looking at the one [university], which is Charles Sturt.” [P5 – Female, 31-35]

“[Business analysis is] definitely where I’m forging towards...I’ve actually gone and signed onto some more MOOCs.” [P9 – Female, 36-40]

For those using the MOOC to determine if they wanted to commit to a BA educational pathway, some (P13, P17) also linked this with consideration of the host:
“I’m very happy with [CSU] quite frankly...I am more actively looking at the courses they are offering.” [P13 – Male, 51-55]

“I’m looking at enrolling in a formal course rather than the MOOC courses...I was looking at Charles Sturt. I was also looking at Swinburne.” [P17 – Male, 56-60]

Of the two candidates who stated at the outset that they were using the MOOC to assess CSU as a possible provider, one (P7) elected against near-term university study and the other (P14) was not yet certain of his pathway:

“I’ve already had a look on the [Charles Sturt University] website. I’m probably not ready right now. I’m thinking about it.” [P7 – Male, 41-45]

“I’m definitely keen to do some further study, so there’s a number of different things I’m considering at the moment, like an MBA or some more specialist technical courses on Business Analysis. I’m trying to work out now where do I go to get that education.” [P14 – Male, 36-40]

But this effect was more than countered by those MOOC-as-taster participants who did not specifically set out to test the host institute but whose intention to enrol at both university and at CSU increased post-MOOC (P2, P3, P5, P13). The viewpoints of these individuals are examined further in section 7.2.2.5 under the themes of awareness, consideration and choice.

7.2.2.3 Category: Background Goals

Theme: Convenience (flexibility, online)

The goal of convenience was spoken of by more participants once the MOOC had completed than before its commencement, with several (P5, P8, P16) realising that convenience aspects were a major factor in their enjoyment:

“I also liked how, if you couldn’t make it to the live lecture, there was the video afterwards. And the forums were great. So it really just ticked all the boxes for me.” [P5 – Female, 31-35]

“I couldn’t attend the lectures live so I watched them the next morning. I found that a good thing – you weren’t restricted as to when you could do it.” [P8 – Female, 31-35]

“The audio sound bites were actually really, really good...You could stick them on your iPod and listen to them in the car to and from work.” [P16 – Female, 41-45]

In addition, some (P5, P8, P12, P15) also suggested that online delivery factors played a part in considering the host for future enrolment:
“I’m a lot more open to enrolling with CSU. They’re in my shortlist now. The MOOC played a big role in this – first-hand experience of what to expect from the course itself. I’m assuming that the CSU course will follow a very similar format to the MOOC.” [P15 – Male, 31-35]

Some of the individuals above (P5, P12, P15) were initially unaware of the broad range of online university courses offered through CSU. Information about this was given during the MOOC marketing sessions. Hence, it appears that for several participants’, their MOOC experience combined with the information gleaned from the marketing session served to increase awareness and knowledge of the CSU brand. The influence of these factors is discussed further in §7.2.2.5 under the themes of university consideration and choice.

Theme: Cost and Cost-Benefit

In terms of future study intentions, cost remained a major concern. For several (P12, P16) it was seen as a potential barrier to university enrolment:

“I am thinking about doing a Charles Sturt University course. It’s a matter of having the funds available.” [P12 – Male, 61+]

“Yes I would consider Charles Sturt in future, although when I looked into the courses it was very costly.” [P16 – Female, 41-45]

Others reported that they were continuing to weigh-up the cost-benefit of MOOCs versus university:

“I’m still trying to work out what my future employers are going to be interested in – what do they value?” [P14 – Male, 36-40]

Others commented on the fact that the marketing session (and marketing material) associated with the MOOC aided the consideration process:

If I’d seen [the session on ROI for a university degree] several years ago, I would probably have finished a degree by now.” [P15 - Male, 31-35]

These discussions indicate that, for many participants, cost factors were still seen as a roadblock to both university consideration and choice.
Theme: Time

Consistent with pre-MOOC discussions, time was given as a reason for either non-completion or for limited engagement. It was also cited as both a barrier to university enrolment and as part of the cost-benefit equation when looking at future study options:

"[My next step] is...identifying where I can get the most value in the shortest amount of time." [P4 – Male, 31-35]

"I definitely want to take things further, given the right course and time availability." [P6 – Male, 61+]

"I enjoyed it but I was very, very stretched for time. I'm very glad I didn’t jump straight into a Business Analysis course." [P13 – Male, 51-55]

"My limiting factor at the moment even more so than money is time. Whatever [study] I want to do I want it to be most beneficial to me with the time that I invest.” [P14 – Male, 36-40]

While some participants saw time as an impediment, others (P8, P10, P19) intimated that this factor was being re-assessed when it came to university enrolment. This appeared to coincide with greater awareness about the convenience and effectiveness of online delivery, and was also linked to the fact that Charles Sturt offered university courses using a similar format:

"The hours I’m working at the moment will make it difficult to fit in full time study...[but] it was good to be able to get into the technology side of studying. The last time I did it, it was a lot different....I would definitely consider Charles Sturt...." [P8 – Female, 31-35]

"I feel like I tested the online environment with this university. And for me, online study...is the only way to go because I have so much stuff going on that you’ve got to fit in study where you can.” [P10 – Male, 46-50]

A more obvious case of re-assessing priorities involved the participant below (P19), who initially stated that he was unlikely to have time for university study but who was later on the cusp of enrolment with CSU:

Pre-MOOC: “The likelihood [of doing a university course] is quite low at the moment just because of my bandwidth. I’m pretty full-on doing 50 or 60 hours a week.”
Post-MOOC: “I did come across a subject in the marketing material on professional communications. I’m tempted to do that subject. It’s a paid-for one....The MOOC was so professionally run that I’ve gone away with a very positive impression of the university.” [P19 – Male, 56-60]
**Theme: Trust (reputation, relationship)**

After the MOOC, several participants (P1, P2, P3, P5, P10, P13, P15, P16) reported a much stronger trust relationship with the host, such that they were more likely to consider CSU for enrolment. This was particularly the case for those who had initial limited awareness (§7.2.1.7) of the host:

“...I did appreciate Charles Sturt giving me the opportunity to establish that they weren’t a fly-by-night. So what it’s done is reinforce the fact to me that they are a solid university. That it’s an organisation that I can comfortably go to.” [P13 – Male, 51-55]

“I had an ambivalent opinion of Charles Sturt, not having had any real interaction with them before. I can certainly see potential there now for a further learning relationship... Charles Sturt is most definitely on my radar now.” [P16 - Female, 41-45]

This finding aligns with other research on the impact of trust in commercial (and educational) relationships. For example, McKnight et al. (2002) found that individuals’ trust beliefs affected their intention to transact business with a web site, and that these same beliefs were influenced by both the web site’s reputation as well as its perceived quality. Within a higher education context, Perin et al. (2012) found that students’ trust attitudes were similarly affected by perceptions of institutional quality, and that “trust and commitment are the most effective ways to build student loyalty to the HEI (Higher Education Institution)” (p. 111).

**7.2.2.4 Category: Learning Goals**

**Themes: Mastery and Performance Goals**

Although no-one reported any outright change in learning orientation, several who declared a later intention to enrol at university did speak indirectly about a change in emphasis from their original mastery (i.e., curiosity) perspective, or from their mastery/performance (i.e., curiosity and qualification-focused) perspective:

**Pre-MOOC:** “I’m definitely focused mostly on the curiosity side of things, because this has nothing to do with my current job....”

**Post-MOOC:** “The curiosity is, of course, still there but I think it’s now a little bit beyond that because I now want to get a degree in this area.” [P5 – Female, 31-35]
Pre-MOOC: “I may have grown somewhat complacent at my last role – I felt no urgency to refresh my qualifications, which is why I’m doing this course.”

Post-MOOC: “The MOOC did stimulate my curiosity for further learning. I’d say it contributed about 25% to my awareness or appreciation for further education. Of course, I think education has always been the way forward for me. I’ve just been in denial.” [P15 - Male, 31-35]

Overall, however, there was limited evidence to link a modification in learning style with participants’ future study intentions, with most respondents suggesting that they were motivated by the same themes as at the outset of the course.

7.2.2.5 Category: Consumption Considerations

The most prominent finding from the post-MOOC interviews concerned issues around university awareness, consideration and choice.

Theme: Awareness

Three types of awareness regarding the host institute emerged post-MOOC: One involving general brand awareness concerning CSU; another relating to an awareness of course products that the university offers; and a third relating to the types of content, online teaching and delivery style associated with CSU. Some pre and post-MOOC comments illustrating this growing awareness are as follows:

Pre-MOOC: “I don’t know a lot about [Charles Sturt University], sorry.”
Post-MOOC: “Charles Sturt University seems to have experts on their side. And I think at the end of the day that is why somebody would come to your university. You know your stuff – you have good content, and you can teach it.” [P1 – Male, 41-45]

Pre-MOOC: “I know very, very little [about Charles Sturt]. In fact, I’m still wondering about the university. Where are you based?”
Post-MOOC: “I’m very happy with [CSU] quite frankly… I did see that Charles Sturt has some fairly interesting courses, including Master’s courses. So I am more actively looking at the courses they are offering.” [P13 – Male, 51-55]

Beyond a knowledge of the university brand, the awareness of course offerings was stimulated by the marketing session:

“During the MOOC someone from Charles Sturt spoke about further study options, which I sat through and listened to.” [P3 – Male, 36-40]

“I’ve already had a look on the [Charles Sturt University] website.” [P7 – Male, 41-45]
These findings may have important commercial implications. As noted earlier (§4.4), brand awareness is a prelude to both consideration and choice (Eliaz & Spiegler, 2011; Macdonald & Sharp, 2003). Within a MOOC context, such increased awareness of the host university may thereby increase its chances of being considered for future enrolment. This topic is considered next.

**Theme: Consideration**

One of the most significant changes between the pre- and post-MOOC discussions involved the number of participants who were considering future enrolment in a Charles Sturt University course. The results are presented in Table 7.6 below.

<table>
<thead>
<tr>
<th>Question</th>
<th>Y (Pre-MOOC)</th>
<th>Participants</th>
<th>Y (Post-MOOC)</th>
<th>Participants</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering enrolment at Charles Sturt University in the future</td>
<td>3 (15.8%)</td>
<td>P6, P8, P12</td>
<td>16 (78.9%)</td>
<td>P2, P3, P4, P5, P6, P7, P8, P9, P10, P12, P13, P14, P15, P16, P17</td>
<td>+23.1%</td>
</tr>
<tr>
<td>Considering enrolment with Charles Sturt University in the future, but only contingent on the MOOC experience</td>
<td>10 (52.6%)</td>
<td>P2, P3, P5, P7, P9, P13, P14, P15, P16, P17</td>
<td></td>
<td>P1, P11, P18</td>
<td>-50%</td>
</tr>
<tr>
<td>Not considering enrolment with Charles Sturt University in the future</td>
<td>6 (31.6%)</td>
<td>P1, P4, P10, P11, P18, P19</td>
<td>3 (15.8%)</td>
<td>P1, P11, P18</td>
<td></td>
</tr>
</tbody>
</table>

**Table 7.6**

*Pre versus post-MOOC consideration of Charles Sturt University*

These results show a 23% increase in those considering enrolment with CSU versus their pre-MOOC intentions. Perhaps more significant, for multiple people (P2, P3, P5, P12, P13, P15, P16) the *strength* of their original enrolment intentions appeared to increase. This is evident from the tone of the following pre and post-MOOC sample comments:
Pre-MOOC: “Being Queensland-based I don’t know whether there is any Charles Sturt around here but as long as they offer online education, it would be a possibility.”
Post-MOOC: “The MOOC was really well run so I would definitely consider Charles Sturt for future university study.” [P2 – Female, <30]

Pre-MOOC: “[Enrolment] with Charles Sturt – yes, that would be something I would consider.”
Post-MOOC: “I would look on Charles Sturt as a definite possibility because I’ve had that experience and I can say the content was good and challenging over other universities where I don’t have that connection. So I’ve already got that connection with Charles Sturt.” [P3 – Male, 31-35]

Pre-MOOC: “I was doing some research on my various university options and looking at Charles Sturt as one of them.”
Post-MOOC: “I’m a lot more open to enrolling with CSU. They’re in my shortlist now. The MOOC played a big role in this – first-hand experience of what to expect....” [P15 – Male, 31-35]

Pre-MOOC: “Yes, absolutely I would consider enrolment with [Charles Sturt] if I felt I could learn something valuable and the opportunity was there.”
Post-MOOC: “I thought it was really well done...As part of the MOOC they said that Charles Sturt do a Grad Cert and a Masters in project management, which I’m interested in doing in the future.” [P16 – Female, 41-45]

A similar increase in enthusiasm was evident too from the following participant – someone who did not seriously consider CSU enrolment at the outset but who later said it was a possibility:

Pre-MOOC: “[Enrolment with CSU] is unlikely but not impossible.”
Post-MOOC: “I enjoyed [the MOOC] and it met my expectations....I did come across a subject in the marketing material on professional communications. I’m tempted to do that subject. It’s a paid-for one.” [P19 – Male, 56-60]

Theme: Choice

Of those who said they would consider Charles Sturt University, a number stated that CSU was at the top of their list for likely enrolment (P3, P5, P12, P13, P19). In most cases, these individuals went from knowing little about the university to declaring it their preferred provider:

Pre-MOOC: “This is the first time I’ve heard of this university.”
Post-MOOC: “At the moment I’m just really looking at one university, which is Charles Sturt, because I did the free course through it.” [P5 – Female, 31-35]

Pre-MOOC: “I know very little [about CSU]. Can you remind me which university it is again?”
Post-MOOC: “If I did further education, the first place I would definitely go would be with CSU. There are no two ways about it.” [P19 – Male, 56-60]
Further, for those who did mention other university providers within their consideration and choice sets (P8, P13, P15), the number of alternatives was typically small:

“I would definitely consider Charles Sturt, along with UNE, which I studied through before. And because I am based in Brisbane I would also probably look at UQ or QUT. Even though I would be studying online, I think there’s a benefit of having them here if needed.” [P8 - Female, 31-35]

“Given my MOOC experience, the universities I would consider would be very few. Charles Sturt has basically passed the hurdles in terms of it being a respected university...But I would still consider a few other universities when the time comes.” [P13 – Male, 51-55]

In interpreting these results, a word of caution is appropriate. In stating their intention to enrol at CSU in the future, only one (P19) suggested that this was likely to happen in the near term. Such a phenomenon is, in fact, consistent with earlier reports on the use of MOOC credit as an incentive to enrol at university, a scheme which in the past has seen no significant immediate transition of students between the two environments (Kolowich, 2013b). Moreover, while brand awareness has been shown to have a positive effect on purchase intentions and ultimate product choice, this effect tends to weaken over time (Esch, Langner, Schmitt, & Geus, 2006). This suggests that ongoing work is needed to maintain contact with participants beyond the end of a MOOC so that the emerging trust relationship can be further nurtured. Such an aim is beyond the scope of this thesis; however, it does suggest that those looking for a quick return on MOOC-to-university conversion may be disappointed.

7.3 Support for Research Propositions

In this section, findings from the qualitative study are interpreted against the research propositions listed in Chapter 5. In addition, for each proposition, one or more participant comments are given in support. In Chapters 8-9, several of these propositions have been converted into hypotheses and analysed using the results from a quantitative survey of additional MOOC students.

P1: At the start of a MOOC, participants report an active goal set that is only partially consistent with university enrolment.

Recall that an active goal set contains the focal and background goals of an individual within a specific context (§5.2). As noted above (§7.2.1.6), the active goal set for participants in this
study consisted of either a career or knowledge focal goal, and the background goals of cost, convenience, cost-effectiveness, time and trust. Since a knowledge focal goal was held by just one participant (§7.2.1.2), the most common active goal set is depicted in Figure 7.3.

![Figure 7.3](image)

**Figure 7.3**
Active goals of MOOC participants

Proposition 1 refers to the fact that, at the outset of the MOOC, university enrolment was not seen as compatible with one or more goals within this set (and hence was only partially consistent with it, as per the definition given in §5.2).

Strong support for this proposition emerged from the study. Firstly, during the initial interviews, participants were asked about their reasons for choosing the MOOC over university. In most cases, this was because their goals did not fully align with university study. The most common reason for this involved background goals relating to cost, time, convenience, and trust (§7.2.1.6):

- **Cost / Cost-benefit:** “...a MOOC represents a more cost-effective pathway to my goals than university study.” [P10 – Male, 46-50]

- **Time:** “Time and workload are major factors with me at the moment.” [P17 – Male, 56-60]

- **Convenience:** “This course was more convenient [than university]...I don’t have to be on a campus.” [P12 – Male, 61+]

- **Trust:** “…there is an underlying reason why I did this MOOC – to learn more about the delivery and what [CSU] is like.” [P7 – Male, 41-45]

In addition, for those using the MOOC as a career taster, university study was initially viewed as premature in relation to their focal goal, despite not being ruled out as a future possibility:
“[The MOOC is] not related to my current employment. It’s testing out where I want to go in the future...if I enjoy it...then that will encourage me to go to Uni and study more.” [P5 – Female, 31-35]

And finally, sometimes the lack of alignment between university and participants’ goals came down to a lack of understanding about available options. For example, the following participant viewed MOOCs as more convenient because they were online, as opposed to university which was (incorrectly) associated only with on-campus study:

“This course was more convenient for me [than a university course]. As long as I’ve got computer access it doesn’t matter where I am in the world....” [P12 - Male, 61+]

**P2: Participants who report a new or enhanced goal intention for university enrolment after MOOC completion also report a change to one or more goals within their active goal set.**

This proposition was also supported. Changes to the active goal set typically involved setting a higher-level focal goal (e.g., deciding that BA was the right career path to follow), a modification to the prominence of existing background goals (e.g., giving greater weight to the convenience of online study in any future enrolment decisions) or by a changed understanding of how university might function as a surer pathway than MOOCs for reaching existing or modified goals.

To discuss these scenarios in context, it must first be noted that there were three broad classes of participant who created what was effectively a new goal intention for university once the MOOC was over: Those who initially (pre-MOOC) did not identify university as a possibility but who later said that it was likely; those who declared an initial weak intention for university enrolment but who were later more emphatic; and those who used the MOOC as a taster to determine future career, educational or institutional options, and who later said that they planned to enrol at university as a result of their experience.

For those who did not initially consider university but who later said it was a likely (P4, P10, and P19), in each case there were new perceptions of how these goals could be better served by university enrolment. For participant P4, this involved a stronger understanding of the cost-benefits of university:
“My interest in university has certainly been stimulated...for me that’s what it comes down to – being attractive to the next employer.” [P4 – Male, 31-35]

For P10, the trust factor was enhanced:

“After the MOOC, my view of Charles Sturt is that it’s a lot more competent than universities involved with other MOOCs I’ve done.” [P10 – Male, 46-50]

These same participants (P4, P10, P19) also expressed satisfaction regarding the convenience of the MOOC (see §7.2.2.1), which is also likely to have had an effect on their goal revision.

For those (P12, P15) who declared a significantly stronger intention (rather than a new intention) for university enrolment after engagement with the MOOC, such a change was also typically accompanied by a different perspective on background goals, often relating to an increased trust and confidence that university study (through Charles Sturt) could deliver the necessary outcomes:

“...these courses reinforce my assessment of Charles Sturt…I attended a couple of online webinars with the University of Singapore but did not find them as engaging.” [P12 – Male, 61+]

And finally, those who used the MOOC as a deliberate taster for future career, educational and/or institutional study options, their tentative career goals or the pathways used to reach them, gained further clarity:

“I’m definitely certain now it’s the field I want to go into in terms of work. It’s also pointed me in the direction of some good resources to help me achieve my goals.” [P9 - Female, 36-40]

P3: Participants who successfully complete a MOOC are more likely to report a new or enhanced goal intention for university enrolment than for those who do not complete the MOOC.

This proposition was also supported. Only two participants (P11, P18) did not complete the MOOC, while another (P1) had not finished the final exam at the time of the second interview. These individuals did not have a post-MOOC goal for university study, with two of them (P11, P18) uncertain about their future study intentions, and the other (P1) committed to further MOOCs. Of the remaining 16 participants who completed, 14 (88%) later said that they were considering university enrolment – an increase of 13% from their pre-MOOC intentions (see
also Table 7.5 in §7.2.2.2). Moreover, as noted in §7.2.2.2, in many cases the strength of such intentions increased between the pre and post-MOOC interviews. This was particularly so for those using a MOOC-as-taster strategy, where MOOC completion was typically accompanied with a stronger sense of commitment towards their new career and/or educational pathway:

“This will lead to university for sure. I’m now quite firm about enrolling next year.” [P15 - Male, 31-35]

**P4:** Participants who complete a MOOC and who, as a result of their experience, report a new or enhanced goal intention for university enrolment also report a lack of focal goal fulfilment with respect to MOOC completion.

This proposition had only weak support. For several of those interviewed after MOOC completion, their focal goals (that is, the reasons they enrolled) did seem to be satisfied. For these participants, while future university enrolment may not have been ruled out, in the short term they were more likely to follow a MOOC pathway:

**Before:** “[Doing the MOOC] is more about keeping across things, best practice, learning, being the best at what you do”.

**After:** “I certainly want to do more MOOCs. I’ll see what’s coming up….I’ve already had a look on the [Charles Sturt University] website. I’m probably not ready right now.” [P7 - Male, 41-45]

**Before:** “I’m currently unemployed but looking at this MOOC as a way of both getting credentialed as well as honing skills to look for self-employment opportunities….At the present time, a MOOC represents a more cost-effective pathway to my goals than university study.”

**After:** “I enjoyed it. There were a few techniques that I learned through the course that I hadn’t learned before…. And even though the exercises were fairly simple they were still useful in getting you to analyse a problem in different ways. So overall I thought it was really good…..I’d like to do other MOOCs.” [P10 – Male, 46-50]

Moreover, most participants had fairly modest focal goals with respect to the MOOC and, as a result, generally agreed these expectations were met. Of course, in some cases (e.g., where the focal goal was to secure work as a business analyst) it was too early to say by the time of the final interview whether or not the focal goal itself was within reach.

Notwithstanding these observations, there were others whose focal goals had clearly developed after interaction with the MOOC, such that the MOOC itself (or any other MOOCs)
were unlikely to satisfy them. These participants tended to be the most enthusiastic concerning future university enrolment:

**Before:** “I am coming to that point in my career, and I’m not sure if I want to continue doing what I’m doing or something else…5 weeks isn’t a lot of time to dedicate so to speak but it’s enough time to learn what a business analyst does to see if I enjoy it and go from there”.

**After:** “I now want to get a degree in this area. It’s almost like I’ve found my little home and I’m happy to stick there.” [P5 – Female, 31-35]

**Before:** “I’m doing the MOOC because I now want to change my focus to something more in the Project Management or Business Analyst disciplines. And the fact that it’s free didn’t hurt.”

**After:** “It was a great course. Very insightful, very eye-opening. Useful...This will lead to university for sure. I’m now quite firm about enrolling next year.” [P15 - Male, 31-35]

**P5:** Participants who complete a MOOC and who change their learning goal orientation (from mastery to performance or vice versa) as a result of their course experience are more likely to report a new or enhanced goal intention for university enrolment than for those who complete the MOOC but whose goal orientation does not vary.

As noted earlier (§7.2.2.4), there was limited evidence to link a modification in learning style with future study intentions. One reason that the results were not more conclusive may concern the conversational nature of the enquiry, in which participants were asked whether they were motivated more by curiosity (a proxy for mastery orientation) or by the qualification itself (a proxy for performance orientation). This line of questioning led most to declare that they were motivated by both, and post-interview questioning was unable to draw out any significant changes in attitude. Although two participants (P5 and P15) both suggested a learning style change, their assertions were somewhat vague, and not supported by any additional data:

**Pre-MOOC:** “I’m definitely focused mostly on the curiosity side of things...”

**Post-MOOC:** “The curiosity is, of course, still there but I think it’s now a little bit beyond that because I now want to get a degree in this area.” [P5 – Female, 31-35]

Other research conducted on learning orientations has typically been quantitative in nature, and has used a multi-item scale to rate agreement with either mastery or performance factors (e.g., Klein, Noe, & Wang, 2006; VandeWalle, 1997). This approach is taken within the quantitative section of this thesis (Chapters 8 and 9).
**P6:** Participants who complete a MOOC and who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) are likely to consider the host university for enrolment.

Marketing of the host university and its courses created awareness for participants of some of the study options available to them. It was not clear, however, if the marketing of the host was specifically responsible for increasing consideration of CSU.

“*The marketing session was definitely useful. As someone who isn’t sure on what study they should be pursuing – particularly because I’m just getting back into study – it was handy to get an explanation of what is out there, what the content is, what to expect – whether it’s full time or part time. So I got value out of it.*” [P3 - Male, 36-40]

“*I enjoyed every week of it. Especially the bit about the next steps for university. Because I was wondering where do I go from here?*” [P5 – Female, 31-35]

**P7:** Participants who successfully complete a MOOC and who report a new or enhanced goal intention for university enrolment are likely to include the tertiary host of the MOOC within their consideration set.

There was strong support for this proposition. Indeed, the effectiveness of the MOOC in creating brand awareness for the host institute (CSU) – and with it, a willingness for participants to consider enrolment – was a key finding of the study.

As shown in Table 7.6 (§7.2.2.5), there was a 23% increase (from 13 to 16 individuals) in the pre and post-MOOC intentions for those considering enrolment with CSU. Further, and again as noted earlier (§7.2.2.5), for those 13 participants who said pre-MOOC that they would consider enrolment with CSU, in most cases their intentions were expressed more emphatically once the MOOC was over:

“*I’m a lot more open to enrolling with CSU. They’re in my shortlist now.*” [P15 – Male, 31-35]

In total, of the 16 participants who said that they were considering university enrolment, all of them said (to a greater or lesser extent) that they would consider CSU as their provider.
**P8.** Participants who report a new or enhanced goal intention for university enrolment but who do not have a university degree are more likely to consider fewer universities (i.e., to have a smaller consideration set) than for those who do have a degree.

The support for this proposition was inconclusive. Of those without a degree (P3, P5, P15), and thus with less experience of the university sector, all agreed that future university study was a possibility. Participants P3 and P5 both intimated that they were unlikely to consider any university beyond Charles Sturt:

“It does put Charles Sturt above those other universities that I have locally because I’ve already got that connection. You can also put it down to being time poor. You don’t want to have to go through the chore of going from one university to another asking ‘what are you offering, what’s the content?’ I’ve already got that overview of Charles Sturt.” [P3 - Male, 31-35]

“At the moment I’m just really looking at one university, which is Charles Sturt, because I did the free course through it.” [P5 - Female, 31-35]

Participant P15, while not having a degree, did have experience of the university sector, having previously commenced a bachelor’s degree before withdrawing. He said that CSU would be considered, along with three other institutions:

“I’ll probably apply for a couple of different universities – 2 to 4 universities.” [P15 – Male, 31-35]

Of the three others (P8, P13, P19) who spoke about the likely size of their consideration set, each had a degree. Both P8 and P13 said that they would consider several universities:

“I would definitely consider Charles Sturt, along with UNE, which I studied through before. And because I am based in Brisbane I would also probably look at UQ or QUT. Even though I would be studying online, I think there’s a benefit in having them here if needed.” [P8 - Female, 31-35]

“Given my MOOC experience, the universities I would consider would be very few. Charles Sturt has basically passed the hurdles in terms of it being a respected university...But I would still consider a few other universities when the time comes.” [P13 – Male, 51-55]

Participant P19, in contrast, said that he was only going to consider CSU:

“If I did further education, the first place I would definitely go would be with CSU. There are no two ways about it.” [P19 – Male, 56-60]
These findings show that there was mixed support for this proposition. Further results are reported concerning consideration set size in the quantitative section of this thesis (Chapters 8 to 9).

**P9:** Participants who successfully complete a MOOC and who report a new or enhanced goal intention for university enrolment are more likely to choose the current host university from the consideration set if (a) the engagement experience of the MOOC was satisfying and (b) if the pedagogies and delivery formats of the university offering are perceived as similar to those encountered within the MOOC.

There was support for this proposition. Of all the interview questions asked, this one attracted the lengthiest responses. As noted earlier (§7.2.1.3), some students started the MOOC with the express idea of testing the university along with its learning and teaching methods, with a view to possible future enrolment:

“**You’re testing the university’s attitudes towards students, their ability to deliver online content...**” [P7 - Male, 41-45]

“**[The MOOC is] a test of what CSU’s education service is like.”** [P14 - Male, 36-40]

Others did not start the MOOC with the idea of testing the host university but agreed once the MOOC was over that their experience did indeed reflect on the host’s ability to run an effective online tertiary course:

“I didn’t know anything about the university when I started. The webinars and all the content that was presented was very well organised – so I believe that the courses offered through the University would also be well arranged and organised.” [P2 - Female, <30]

“I feel like I tested the online environment with this university. And for me, online study – perhaps with the option of a residential – is the only way to go because I have so much stuff going on that you’ve got to fit in study where you can, and online is the only way you can do that.” [P10 - Male, 46-50]

“I’m a lot more open to enrolling with CSU. They’re in my shortlist now. The MOOC played a big role in this – first-hand experience of what to expect from the course itself. I’m assuming that the CSU course will follow a very similar format to the MOOC.” [P15 - Male, 31-35]
7.4 Conclusion

In this chapter the results of a qualitative MOOC study were reported. The most common reasons for doing the Business Analysis MOOC related to the focal goal of career, and the background goals of time, cost, convenience, and trust. The subordinate goals used to reach these outcomes were MOOC enrolment and completion, certification, the acquisition of knowledge, and using the MOOC as a taster to explore career and educational options. This study also showed that MOOC enrolment was not, in itself, inconsistent with future university consideration, with multiple participants declaring at the outset that they were either planning, or would consider, a subsequent university course.

This relationship between MOOCs and university was further explored in the post-MOOC interviews, where it was shown that the impact of the MOOC contributed to both strong brand awareness and an increased trust relationship with the host. This prompted many to affirm that they would consider this same host (Charles Sturt University) for future university enrolment.

The findings of the qualitative study support several of the research propositions given earlier in Chapter 5. In particular, it was found that those who started the MOOC had goals which did not initially align with university enrolment but that this often changed by the end of the course. This came about either because the MOOC experience itself prompted a change to participants’ goals, or because the attitudes of participants had changed with respect to how their original goals might be reached through a university pathway. In the next chapter (Chapter 8), the propositions and findings presented here are used as the basis for several hypotheses. These hypotheses are then tested within a quantitative study (Chapters 9 and 10) involving a larger cohort of MOOC students.
CHAPTER 8
Moving from Propositions to Hypotheses

8.1 Introduction

In the previous chapter, findings were reported from a qualitative study of MOOC participants. The next chapters (9-10) describe a quantitative study of a larger sample of participants. The purpose of the current chapter is to detail the hypotheses that were generated for testing within this quantitative phase of the research. This chapter also contains an explanation of how each hypothesis relates to one or more of the propositions given in Chapter 5. In addition, the hypotheses introduced here are connected with content presented in the literature review chapters (2-4), as well as with the findings from the qualitative study (Chapter 7). This chapter thus provides a link between the earlier sections of the thesis and the quantitative study described in the chapters ahead.

8.2 Overview

Within Chapter 5, propositions that align with the overall research direction of the study were presented. These propositions dealt with notions such as the goals of MOOC participants, and the impact of the MOOC experience on their future educational ambitions and choices. The propositions themselves drew heavily on concepts from the goal theory literature, from the domain of consumer decision-making, and from theories relating to customer satisfaction. These propositions were established to guide the direction of the qualitative study (see Chapters 6-7), which was used to gain insights into the effect of the MOOC experience on the future educational goals and pathway choices relevant to a specific cohort of students.

As noted in Chapter 7, the findings from the qualitative study supported several of the propositions, in addition to suggesting other areas for investigation. This included findings about the impact of MOOC engagement on the background goals and future study choices of participants. These and other results from the qualitative study contributed to the generation of hypotheses that have been used within the next phase of this research, which involves a quantitative study of a larger cohort of participants. Broadly, these hypotheses relate to:
University enrolment intentions (both generally and with the host institute) before and after a MOOC

The impact of MOOC completion and satisfaction on future university enrolment intentions

The effect of a MOOC information session (about the career and financial benefits of university study) on participants’ future university enrolment intentions

The effect of a MOOC marketing session (on courses offered by the host university) on participants’ future enrolment intentions with the host institute

The size and composition of participants’ consideration sets for university study, including the relationship between participants’ previous educational experience and their consideration set size

The MOOC factors likely to influence the final choice of a university provider from participants’ consideration sets

In the next section, each hypothesis relating to the general areas noted above is presented and justified. These hypotheses are then tested within the quantitative study described in subsequent chapters (9 and 10).

8.3 Hypotheses

This section details the hypotheses used within the quantitative study. As noted above, each hypothesis has been informed by the literature on MOOCs (Chapter 2), goals (Chapter 3), and consumer behaviour (Chapter 4), in addition to the findings from the qualitative study (Chapter 7). For each hypothesis given below, a brief justification is provided, along with a summary of how it relates back to one or more of the propositions given earlier (Chapter 5). A table summarising this linkage also appears in the next section (§8.4). The first hypothesis is as follows:

**H1:** Participants who express an increased post-MOOC likelihood of university enrolment are also more likely than other participants to affirm an increase in the mean number of goals that would be better satisfied by university enrolment rather than MOOC enrolment.
Hypothesis H1 affirms that an increase in post-MOOC university intention is also likely to involve the reconfiguration of a participant’s active goal network between the pre and post-MOOC stages. A similar argument is given in Proposition 2 (Chapter 5).

In support of this hypothesis, it was observed within the qualitative study that a change in the strength of participants’ university study intentions also typically involves a different perspective concerning their focal or background goals (see §7.2.2.3). This meant that following university pathway was seen to reach more of the focal and background goals of these participants at the conclusion of the MOOC than at its commencement, effectively causing a change in how their active goal network was configured (§7.3). The hypothesis above allows these same concepts to be tested against a larger sample of MOOC participants using quantitative methods.

**H2: For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who successfully complete the MOOC than for those who do not successfully complete.**

H2 concerns the likelihood of someone enrolling into a university course following their successful completion of a MOOC. For the purpose of this study, a participant is considered to have successfully completed their MOOC if they pass the final exam. This hypothesis links with the literature on goal striving, where it has been noted that those who achieve a goal often gain in self-confidence, encouraging them to pursue a more difficult objective (Eccles & Wigfield, 2002; Koo & Fishbach, 2010; Phillips & Gully, 1997).

There is also a link between this hypothesis and Proposition 3, which asserts that those who complete a MOOC are more likely, when compared with their pre-MOOC intentions, to create a new goal for university study, or to more strongly affirm the desirability of an existing university goal. Unlike its related proposition, however, this hypothesis is only concerned with the post-MOOC connection (if any) between a participants’ MOOC completion status and their near-term university enrolment intentions. This is in keeping with the design of the quantitative study (see Chapters 9 and 10), where changes in participants’ pre- and post-MOOC university enrolment intentions are first captured through general statistical tests,
with hypotheses such as the one above then used to determine which factors may have contributed to any observed changes in intention.

**H3: A participant’s overall satisfaction with a MOOC is positively associated with their likelihood of enrolment into a university course within the next 12 months.**

H3 deals with the association between participants’ post-MOOC satisfaction and their assessed likelihood of university enrolment. This hypothesis links with the findings from the qualitative study, where it was observed that those who expressed either a new or stronger intention regarding university enrolment also expressed strong satisfaction with their MOOC experience (§7.2.2.2). It also links with the literature review on consumer decision-making (Chapter 4), where it was observed that satisfaction with a free-trial product may increase the likelihood that consumers will consider the paid version of the same item (Liu, Au, et al., 2014; Pujol, 2010; Wagner et al., 2014).

Further to the points above, it has been observed that MOOC completion implies satisfaction with the course experience (Karsenti, 2013). This view was also suggested by findings from the qualitative study (Chapter 7). Thus, there is a linkage between this hypothesis and Proposition 3, which deals with the connection between MOOC completion and subsequent university enrolment; however, rather than relying on MOOC completion as a proxy for satisfaction, both this and the previous hypothesis (H2) were generated to separate these two concepts (completion and overall course satisfaction) for further testing.

**H4: For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who attend a university information session (delivered as part of the MOOC, and which discusses the career and financial benefits of university study) than for those who do not attend this session.**

It was observed during the qualitative analysis (Chapter 7) that several participants who witnessed the MOOC marketing session later expressed stronger intentions (when compared with their pre-MOOC status) regarding future enrolment with the host university. In addition, several participants of the qualitative study, in reflecting on the attractiveness of university enrolment generally, also spoke about the cost-benefit advantages of university versus MOOC
study (§7.2.2.3). Moreover, the university marketing material made available to participants in the qualitative study included promotional messages about university in general, as well as about specific university courses offered by the host (§6.3).

To disentangle these two areas (dedicated host marketing and the cost-benefit promotion of university as a whole), this hypothesis was generated to allow a separation of concepts relating to generic university promotion and the specific marketing of the host and its courses (which are covered by H5 below). In terms of the hypothesis above, the notion of using an information session to promote university as a reliable pathway towards participants’ career goals is linked with findings from the qualitative study, which showed that career objectives were the most common focal goal of participants (§7.2.1.2). It also links with several observations from the goal theory literature, which affirm that a given subordinate goal may be preferred over other contending pathways if it is seen to lead with greater certainty to the focal goal (Kruglanski et al., 2013; Oettingen & Gollwitzer, 2007).

**H5:** For MOOC participants, the mean likelihood of enrolment with the host university within the next 12 months will be significantly higher for those who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) than for those who do not attend.

H5 relates directly to Proposition 6, which deals with the impact of a university marketing session on participants’ future consideration of the host. As noted above, the concept of marketing has been refined within this and the previous hypothesis to include the specific marketing of the host (H5) as well as the use of an information session to promote university more generally (H4).

In support of the host marketing hypothesis above, within the consumer behaviour literature it has been frequently noted that product awareness is the precursor of consideration and choice (Eliaz & Spiegler, 2011; Huang & Sarigöllü, 2014; Macdonald & Sharp, 2003). Further, during the qualitative analysis, several participants who saw the MOOC marketing session about specific courses offered by Charles Sturt University expressed strong intentions about enrolling with this same institute (§7.2.2.5). This hypothesis thereby provides the opportunity
to further test the effectiveness of an in-MOOC marketing campaign on participants’ later consideration of the host for enrolment.

**H6:** Participants who successfully complete a MOOC are more likely than those who do not successfully complete to include the host university in their consideration set of university providers.

An earlier hypothesis (H2) affirms that those who complete a MOOC are more likely, on average, to enrol at university in the next 12 months than those who do not. The hypothesis above (H6) extends this idea by positing that successful MOOC completion is also likely to impact on the consideration of the host university for enrolment. This links strongly with Proposition 7, which states that those who complete a MOOC, and who establish either a new or enhanced goal for university study, are more likely to include the tertiary host in their consideration set when compared with others who don’t satisfy these conditions.

**H7:** At the conclusion of a MOOC, those who include the host university within their consideration set of university providers will have a significantly higher overall course satisfaction rating than those who do not.

H7 relates to the difference in overall MOOC satisfaction between participants prepared to consider the host for university enrolment and those not indicating such an intention. This follows from the findings of the qualitative study, where a link between participant satisfaction and host consideration was noted (§7.2.2.2). Further, a strong association has been observed between prior brand satisfaction and future consideration within the literature (Broniarczyk & Griffin, 2014; Hauser, 2014; Lapernonne et al., 1995).

There is a link between this hypothesis and Proposition 7, which deals with the connection between MOOC completion and consideration of the host. However, as noted in the commentary for H3, rather than using MOOC completion as a proxy for satisfaction, in this hypothesis the concept of student satisfaction is dealt with explicitly. This allows for the impact of participants’ course satisfaction judgments to be tested directly with respect to their consideration of the host for later enrolment (see Chapters 9 and 10).
**H8.** MOOC participants who construct a consideration set of university providers and who have previously graduated with a university bachelor’s degree (or higher) will have a larger consideration set than those who have not previously graduated with a university bachelor’s degree (or higher).

Hypothesis H8 relates to Proposition 8, and was suggested by the findings of previous scholars with respect to the size of a consumer’s consideration set when measured alongside their experience with the corresponding consumption domain (Aurier et al., 2000; Dawes & Brown, 2002; Rortveit & Olsen, 2007; Viot, 2012). It also links with the finding from the qualitative study (Chapter 7), where it was noted that participants with less educational experience may consider fewer universities.

**H9:** For MOOC participants, the likelihood of enrolment within the next 12 months with the university hosting the MOOC is positively associated with their satisfaction regarding the (a) online format, (b) learning materials, and (c) teaching used within the MOOC.

The final hypothesis (H9) deals with the association between participants’ satisfaction concerning key MOOC elements and their likelihood of enrolling with the host institute. It is hypothesised that this likelihood will increase with higher levels of satisfaction regarding the online format, course materials, and teaching style used within the MOOC. This is consistent with both the findings of the qualitative study (Chapter 7) as well as the literature on consumer choice, which shows that brand exposure can positively impact on future consideration and choice (Hauser, 2014; Lee & Tan, 2013; Park & Stoel, 2005). It is also consistent with several of the key elements of course satisfaction (such as a strong teacher presence) as noted in the MOOC literature (Belanger & Thornton, 2013; Gameel, 2017; Khalil & Ebner, 2014; Manalo, 2014; Moskal et al., 2015).

There is a link between this hypothesis and Proposition 9a, which states that those participants who establish a new or enhanced post-MOOC goal for university study are also likely to select the host for enrolment if their MOOC experience was satisfying. However, rather than treating of overall course satisfaction (a concept that is dealt with in H3 and H7), within this hypothesis satisfaction with specific elements of the MOOC are addressed. This
provides the opportunity to test which of these key elements, if any, might prove most influential in participants’ consideration of the host for enrolment.

8.4 Links between Propositions and Hypotheses

The links between the hypotheses and propositions as noted in the previous section also appear in Table 8.1 below. To summarise this connection, a comment has been included to explain the linkage.

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<tr>
<th>Proposition</th>
<th>Hypothesis</th>
<th>Comment</th>
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<tbody>
<tr>
<td><strong>P1:</strong> At the start of a MOOC, participants report an active goal set that is only partially consistent with university enrolment.</td>
<td>N/A</td>
<td>There is no hypothesis that links directly with this proposition. However, within the quantitative study, participants were asked which goals they thought would be better satisfied by doing a MOOC rather than a university course on the same topic (see Chapter 9), which serves a similar purpose. The responses from this survey question are presented and discussed within the quantitative findings chapter (Chapter 10).</td>
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<tr>
<td><strong>P2:</strong> Participants who report a new or enhanced goal intention for university enrolment after MOOC completion also report a change to one or more goals within their active goal set.</td>
<td><strong>H1:</strong> Participants who express an increased post-MOOC likelihood of university enrolment are also more likely than other participants to affirm an increase in the mean number of goals that would be better satisfied by university enrolment rather than MOOC enrolment.</td>
<td>Both H1 and P2 deal with changes to the active goal network of MOOC participants who express a new or stronger post-MOOC intention for university enrolment. Within H1, however, the notion of an active goal set has been described differently to facilitate measurement of the hypothesis. Thus, H1 refers specifically to the link between an increased university enrolment intention and the number of goals that university is seen to satisfy, rather than looking at participant goal changes more generically (as with P2).</td>
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<tr>
<td>Proposition</td>
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<td><strong>P3</strong>: Participants who successfully complete a MOOC are more likely to report a new or enhanced goal intention for university enrolment than for those who do not complete the MOOC.</td>
<td><strong>H2</strong>: For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who successfully complete the MOOC than for those who do not successfully complete.</td>
<td>P3 asserts that those who complete a MOOC are more likely to establish a new or stronger intention for later university study. Implicit here is the idea that participants who complete a MOOC are also likely to be satisfied with the experience. Within H2 and H3, these concepts of MOOC completion and satisfaction are separated so that their connection with university enrolment intentions can be tested for explicitly. In addition, both H2 and H3 (as with several of the other hypotheses given in this chapter) specify a defined time period (12 months) to allow more precise testing of participants’ intentions.</td>
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<tr>
<td><strong>H3</strong>: A participant’s overall satisfaction with a MOOC is positively associated with their likelihood of enrolment into a university course within the next 12 months.</td>
<td><strong>P4</strong>: Participants who complete a MOOC and who, as a result of their experience, report a new or enhanced goal intention for university enrolment also report a lack of focal goal fulfilment with respect to MOOC completion.</td>
<td>N/A No evidence was found within the qualitative study to support this proposition. As a result, no corresponding hypothesis was generated.</td>
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<tr>
<td><strong>P5</strong>: Participants who complete a MOOC and who change their learning goal orientation (from mastery to performance or vice versa) as a result of their course experience are more likely to report a new or enhanced goal intention for university enrolment than for those who complete the MOOC but whose goal orientation does not vary.</td>
<td>N/A No evidence was found within the qualitative study to support this proposition. As a result, there is no corresponding hypothesis that deals with these same concepts. Nonetheless, information on participants’ learning styles was collected through the quantitative survey (Chapter 9). The findings from this data are presented in Chapter 10.</td>
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<tr>
<td>Proposition</td>
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<td><strong>P6:</strong> Participants who complete a MOOC and who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) are likely to consider the host university for enrolment.</td>
<td><strong>H4:</strong> For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who attend a university information session (delivered as part of the MOOC, and which discusses the career and financial benefits of university study) than for those who do not attend this session.</td>
<td>P6 explores the connection between the in-MOOC marketing of the host and its fee-paying course offerings, and participants’ consideration of that some host for later enrolment. Within the corresponding hypotheses, this notion of marketing has been extended to encompass both university marketing in general (H4) and marketing of the host in particular (H5).</td>
</tr>
<tr>
<td><strong>P7:</strong> Participants who successfully complete a MOOC and who report a new or enhanced goal intention for university enrolment are likely to include the tertiary host of the MOOC within their consideration set.</td>
<td><strong>H6:</strong> Participants who successfully complete a MOOC are more likely than those who do not successfully complete to include the host university in their consideration set of university providers.</td>
<td>P7 asserts that those who complete a MOOC are more likely to consider the university host for future enrolment. As noted in the commentary above, the act of MOOC completion implicitly assumes satisfaction with the university host. Rather than relying on this implicit connection, however, within H6 and H7, the concepts of MOOC completion and host satisfaction are separated so that their impact on consideration of the host can be tested for directly.</td>
</tr>
<tr>
<td><strong>H5:</strong> For MOOC participants, the mean likelihood of enrolment with the host university within the next 12 months will be significantly higher for those who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) than for those who do not attend.</td>
<td><strong>H7:</strong> At the conclusion of a MOOC, those who include the host university within their consideration set of university providers will have a significantly higher overall course satisfaction rating than those who do not.</td>
<td></td>
</tr>
<tr>
<td>Proposition</td>
<td>Hypothesis</td>
<td>Comment</td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>P8:</strong> Participants who report a new or enhanced goal intention for university enrolment but who do not have a university degree are more likely to consider fewer universities (i.e., to have a smaller consideration set) than for those who do have a degree.</td>
<td><strong>H8.</strong> MOOC participants who construct a consideration set of university providers and who have previously graduated with a university bachelor’s degree (or higher) will have a larger consideration set than those who have not previously graduated with a university bachelor’s degree (or higher).</td>
<td>Both P8 and H8 link closely, and seek to measure the impact of a participants’ previous educational levels against the size of their university consideration sets.</td>
</tr>
<tr>
<td><strong>P9:</strong> Participants who successfully complete a MOOC and who report a new or enhanced goal intention for university enrolment are more likely to choose the current host university from the consideration set if (a) the engagement experience of the MOOC was satisfying and (b) if the pedagogies and delivery formats of the university offering are perceived as similar to those encountered within the MOOC.</td>
<td><strong>H9:</strong> For MOOC participants, the likelihood of enrolment within the next 12 months with the university hosting the MOOC is positively associated with their satisfaction regarding the (a) online format, (b) learning materials, and (c) teaching used within the MOOC.</td>
<td>P9 consists of two parts: Part A, which deals with the connection between MOOC satisfaction and host consideration; and part B, which deals with the consistency of learning and delivery formats offered in both the MOOC and the host’s university courses. The similarity between the MOOC and host learning environments was highlighted to participants during the MOOC marketing sessions in both the qualitative (§6.3) and quantitative studies (§9.3); proposition 9b has thereby been subsumed into hypothesis H5, which deals with the effectiveness of marketing on future host consideration. For proposition 9a, on the other hand, there is a link with H9. However, rather than considering overall satisfaction, this latter hypothesis focuses on specific points of the MOOC experience.</td>
</tr>
</tbody>
</table>

Table 8.1
Linkage between propositions and hypotheses used within this thesis.
8.5 Conclusion

This chapter has described the hypotheses generated for use within the quantitative study of the thesis. These hypotheses have also been linked with the propositions described earlier, in addition to being justified by their connection with the literature on MOOCs, goal theory or consumer behaviour, as well as with the findings from the qualitative study. The hypotheses presented here provide the basis for a large-scale investigation into the impact of the MOOC experience on individuals’ future university intentions and choice behaviours. In the next chapter, the design of a quantitative study used to test these hypotheses is described.
CHAPTER 9

Quantitative Methodology

9.1 Introduction

This chapter gives details of a quantitative study of MOOC participants that was used to test the hypotheses given in Chapter 8. The survey questions listed in this chapter were designed to collect longitudinal data from individual MOOC participants at the commencement of their course (pre-MOOC) and again at its conclusion (post-MOOC). These questions deal with topics such as the educational background of participants, their reasons for MOOC enrolment, and their assessed likelihood of enrolment with the host. Responses to these and similar questions yielded the necessary data to understand the focal, background and learning goals of those involved with the study, as well as to measure the impact of elements such as a MOOC completion, satisfaction, and university marketing on their future educational goals and preferences.

The chapter is arranged as follows. First, the rationale for the quantitative study is given, along with information about the case-study MOOCs used in this research. Next, details are presented on the recruitment of participants and their demographic profiles. This is followed by a summary of the survey questions used to gather descriptive information about those involved with the study. Finally, the survey questions and statistical methods used to test each of the research hypotheses are given.

9.2 Rationale and Method

The quantitative phase of this study was used to measure support for each of the research hypotheses given in Chapter 8. This study involved the completion of two sets of surveys (pre and post-MOOC) for participants enrolled into one of two Massive Open Online Courses that were aligned with Charles Sturt University, Australia (see §9.3). These surveys were designed using Qualtrics (www.qualtrics.com). The pre-MOOC survey was open to participants from three weeks before each MOOC commenced, while the post-MOOC surveys were open until three weeks after the final exam. Pre- and post-MOOC responses were linked using
participants’ email addresses to obtain individual paired survey results across the two stages. The full list of pre- and post-MOOC survey questions are given in Appendix 3.

9.3 Setting

Two MOOCs were used as the setting for this study. The first, titled *PRINCE2 Primer*, was a project-management course run by IT Masters Pty Ltd in association with Charles Sturt University. Details of these two organisations appear in §6.3. This MOOC ran over a five week period between August and September 2017, with a total enrolment of 5,021 enrolments.

The second MOOC was titled *Cyberwarfare and Terrorism*. This course was likewise run by IT Masters in association with CSU, and introduced different types of cyber weaponry and their use by both individuals and terrorist organisations. This MOOC attracted 4309 enrolments and ran for five weeks between November and December 2017.

As with the qualitative MOOC (Chapter 7), both these courses included weekly live webinar lectures and a Moodle forum to allow students and staff to asynchronously communicate. Each of the MOOCs also included readings and additional resources to supplement the lectures, as well as non-compulsory homework questions (forum discussion activities and weekly quizzes) and a final, multiple choice exam. A certificate of completion was awarded to those who passed the final exam.

Each of these MOOCs also contained a marketing session as well as a more general university information session. The university information session was presented as part of the first webinar and covered:

- A brief overview of Charles Sturt University and some of the courses that it offers
- Reasons why students would want to move from a free short course to postgraduate university study, including:
  - The career benefits of having a university degree, with particular emphasis on the superior employment statistics for those with university level qualifications (using data obtained from the Australian Bureau of Statistics)
  - The financial benefits of having a university degree compared with lower level qualifications (again using data from the Australian Bureau of Statistics)
In contrast with the university information session where CSU courses were only lightly touched upon, the subsequent marketing session (held as part of the Week 2 webinar for each MOOC) discussed courses of possible interest in more depth. This marketing discussion included:

- A presentation on specific courses offered through CSU, with particular emphasis on the Master of Cyber Security (within the Cyber Warfare MOOC) and the Master of Project Management (within the PRINCE2 Primer MOOC)
- A summary of selected individual subjects contained within the above courses
- A discussion about the types of assessments used within selected subjects for these courses
- A presentation about the online study environments that would be used by participants if they enrolled into one of these courses
- Information about the cost of enrolment and how to apply

9.4 Recruitment of Participants

All participants of this study were recruited via the case-study MOOCs themselves. A message concerning the project was posted to the Moodle site of each course before it commenced. Attached to this message was an information sheet that explained the purpose of the study, and what participation involved. Participation was voluntary, with no incentives offered for involvement. A link to the pre-MOOC survey was also made available to prospective participants before each course officially started.

Those who completed this pre-MOOC survey were also emailed at the conclusion of each course with a link to the post-MOOC survey. Since the primary aim of this study was to determine the effect of MOOC participation on future university enrolment intentions, those currently enrolled in a university course were excluded from the analysis. This process yielded 54 valid paired survey completions for the PRINCE2 MOOC, and 52 paired completions for the Cyberwarfare course.
9.5 Participant Demographics

Survey participants from both courses shared similar demographic profiles. The majority of those completing the surveys were male - 42 (78%) from PRINCE2 and 45 (87%) from Cyber Warfare. Most also had previous exposure to MOOCs, with 35 (65%) of PRINCE2 participants and 40 (77%) from Cyber Warfare having previously enrolled in a Massive Open Online Course. Consistent with the literature, most participants had high levels of educational attainment, with 45 (83%) of those in PRINCE2, and 39 (75%) from Cyber Warfare having bachelor degree or higher qualifications. The age profile of survey completers for both courses were also similar, with the most dominant age groupings being 41-45 (22%) in the PRINCE2 MOOC and 36-40 (21%) for the Cyber Warfare course. Given the similar demographic profiles of survey participants, responses from both courses were combined when performing hypotheses testing (Chapter 10), giving a total of 106 individual paired responses (pre and post-MOOC) for analysis.

9.6 Descriptive Statistics

In addition to the demographic information noted above, participants were asked pre-MOOC about their goals for doing the course, the ranking of those goals (to determine which were focal), and their reasons for choosing a MOOC over university study. Participants were also asked questions relating to their learning goals. These pre-MOOC questions were used to determine the types of goals that governed participants of the study. Descriptive statistics for each of these elements are given in Chapter 10.

In addition to yielding descriptive information, many of these same pre-MOOC questions were combined with selected post-MOOC questions to test the hypotheses of the study. Details of the methods used to test each hypotheses are given next.

9.7 Testing the Hypotheses

This section details the survey questions and statistical methods used to test each hypothesis of the study.
**H1:** Participants who express an increased post-MOOC likelihood of university enrolment are also more likely than other participants to affirm an increase in the mean number of goals that would be better satisfied by university enrolment rather than MOOC enrolment.

To test H1, participants were asked (pre-MOOC) about their likelihood of enrolling into university within the next 12 months (Figure 9.1) and about which goals would be better satisfied by university rather than MOOC enrolment (Figure 9.2). The same questions were asked again in the post-MOOC survey.

![Figure 9.1](image1.png)

**Figure 9.1**
Likelihood of future university enrolment within the next 12 months.

![Figure 9.2](image2.png)

**Figure 9.2**
Goals better satisfied by university rather than MOOC enrolment

Responses to these questions divided the survey population into two groups: Those who indicated an increased likelihood for university enrolment, and those who did not. Through a
comparison of pre and post-MOOC responses, the mean increase or decrease in the number of background or focal goals that better aligned with university rather than MOOC enrolment was determined for each of the two groups. An independent samples t-test was then used to determine any significant difference between the two populations.

**H2:** For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who successfully complete the MOOC than for those who do not successfully complete.

The data to test this hypothesis was gained through a combination of MOOC exam results and a survey question about participants’ likelihood of enrolment into a university course within the next 12 months (Figure 9.1).

In testing this hypothesis, the population was divided into two groups: Those who passed the final exam and those who did not. An independent-samples t-test was then used to determine any significant difference in the mean likelihood of university enrolment between respondents from the completers group and those from the non-completers group. These results and other findings are reported in the next chapter.

**H3:** A participant’s overall satisfaction with a MOOC is positively associated with their likelihood of enrolment into a university course within the next 12 months.

H3 deals with the association between participants’ MOOC satisfaction and their assessed likelihood of university enrolment. To test this hypothesis, participants were asked (post-MOOC) about their level of overall satisfaction with the course (Figure 9.3) and about their likelihood of enrolment into a university course within the next 12 months (Figure 9.1).
The data obtained from these survey questions was then used to carry out a correlation analysis using Pearson’s correlation coefficient to determine the strength of any relationship between MOOC satisfaction and future university enrolment within the next 12 months.

**H4:** For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who attend a university information session (delivered as part of the MOOC, and which discusses the career and financial benefits of university study) than for those who do not attend this session.

To test the effectiveness of different types of marketing sessions aimed at convincing participants to enrol in a university course with the host, two promotional sessions were presented during the case-study MOOCs (§9.3). The first of these was an information session that largely dealt with the career and financial benefits of university study. The second was a marketing session promoting Charles Sturt University courses of likely interest. H4 deals with the impact of the first of these sessions on future university enrolment intentions.

Participants were asked post-MOOC questions about their attendance at this information session (Figure 9.4) as well as about their likelihood of enrolling into a university course within the next 12 months (Figure 9.1).
Responses to the survey question on information session attendance divided the survey population into two groups (those who attended, and those who did not), representing a dichotomous nominal variable. The (interval-scaled) responses concerning the likelihood of university enrolment within the next 12 months were then used to calculate the mean likelihood for each group. Next, an independent samples t-test was used to determine any significant difference in the mean likelihood of university enrolment between the two groups.

**H5:** For MOOC participants, the mean likelihood of enrolment with the host university within the next 12 months will be significantly higher for those who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) than for those who do not attend.

To test this hypothesis, participants were asked post-MOOC questions about their attendance at the marketing session (Figure 9.5) and about their likelihood of enrolment with the host university (Charles Sturt) within the next 12 months (Figure 9.6).
Responses to the first survey question divided the population into those who attended the marketing session, and those who did not. Interval-scaled responses about the likelihood of enrolment with the host institution (Charles Sturt University) were then used to calculate the mean likelihood for each group. Following this, an independent samples t-test was conducted to determine any significant difference in the mean likelihood of Charles Sturt University enrolment between the two groups.

**H6:** Participants who successfully complete a MOOC are more likely than those who do not successfully complete to include the host university in their consideration set of university providers.

To test H6, participants were asked about their consideration of university providers (Figure 9.7). A Chi-square test was then used to test the association between a participant’s MOOC exam status and inclusion of the host university within their consideration set. This was done by first cross-tabulating the results relating to those who did / did not pass the MOOC exam and those who did / did not include Charles Sturt University within their consideration set for possible enrolment. A Chi-square test was then used to assess the goodness of fit between the observed values and the expected theoretical values.
Please select all university providers that you are likely to consider.

<table>
<thead>
<tr>
<th>Australian Catholic University</th>
<th>RMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANU</td>
<td>Southern Cross</td>
</tr>
<tr>
<td>Bond</td>
<td>Swinburne</td>
</tr>
<tr>
<td>Central Queensland</td>
<td>Torrens</td>
</tr>
<tr>
<td>Charles Darwin</td>
<td>University of Adelaide</td>
</tr>
<tr>
<td>Charles Sturt</td>
<td>University of Canberra</td>
</tr>
<tr>
<td>Curtin</td>
<td>University of Melbourne</td>
</tr>
<tr>
<td>Deakin</td>
<td>University of New England</td>
</tr>
<tr>
<td>Edith Cowan</td>
<td>UNSW</td>
</tr>
<tr>
<td>Federation</td>
<td>University of South Australia</td>
</tr>
<tr>
<td>Flinders</td>
<td>University of Southern Queensland</td>
</tr>
<tr>
<td>Griffith</td>
<td>University of Sydney</td>
</tr>
<tr>
<td>James Cook</td>
<td>University of Tasmania</td>
</tr>
<tr>
<td>La Trobe</td>
<td>University of the Sunshine Coast</td>
</tr>
<tr>
<td>Macquarie</td>
<td>University of Western Australia</td>
</tr>
<tr>
<td>Monash</td>
<td>University of Wollongong</td>
</tr>
<tr>
<td>Murdoch</td>
<td>Victoria University</td>
</tr>
<tr>
<td>Open Universities Australia</td>
<td>Western Sydney University</td>
</tr>
<tr>
<td>OUT</td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>

**Figure 9.7**
Consideration set of university providers
**H7:** At the conclusion of a MOOC, those who include the host university within their consideration set of university providers will have a significantly higher overall course satisfaction rating than those who do not.

H7 relates to the difference in overall MOOC satisfaction between participants prepared to consider the host institution for future university enrolment and those not indicating such an intention. To test this hypothesis, participants were asked two post-MOOC questions: Firstly about their level of overall satisfaction with the MOOC (Figure 9.3) and secondly about their consideration of university providers (Figure 9.7). An independent-samples t-test was then used to determine any significant difference in the overall course satisfaction ratings between those who included Charles Sturt University in their consideration set and those who did not.

**H8.** MOOC participants who construct a consideration set of university providers and who have previously graduated with a university bachelor’s degree (or higher) will have a larger consideration set than those who have not previously graduated with a university bachelor’s degree (or higher).

To test this hypothesis, participants were asked (pre-MOOC) about their tertiary qualifications (Figure 9.8) and (post-MOOC) about the number of university providers they would consider for future enrolment (Figure 9.7).

![Figure 9.8](image)

**Tertiary qualifications**

Responses to the question on tertiary qualifications divided the survey population into two groups: Those with a bachelor degree (or higher), and those without. The survey also yielded
the size of each participant’s consideration set. An independent samples t-test was then used to test for any significant difference in the set sizes of those who were bachelor-degree qualified (or higher) and those with lower qualifications.

**H9:** For MOOC participants, the likelihood of enrolment within the next 12 months with the university hosting the MOOC is positively associated with their satisfaction regarding the (a) online format, (b) learning materials, and (c) teaching used within the MOOC.

The final hypothesis (H9) deals with the association between individual elements of MOOC satisfaction and the likelihood of enrolment with the host institute. To test for this, participants were asked post-MOOC questions about their level of satisfaction with particular elements of their course – in particular, about the online format (Figure 9.9), learning materials (Figure 9.10), and teaching (Figure 9.11). Pearson’s correlation coefficient was then used to test the association between a participant’s likelihood of enrolment with the host institute and satisfaction with each of these MOOC elements.

![Figure 9.9](image)

**Figure 9.9**
Satisfaction with the MOOC online format

![Figure 9.10](image)

**Figure 9.10**
Satisfaction with the MOOC learning materials
9.8 Conclusion

In this chapter details of the quantitative study were given. This study was used to measure support for the hypotheses of the research, including the impact of the MOOC experience on participant’s intentions towards both university enrolment in general and with the host in particular. The findings from this study are discussed within the next chapter.
CHAPTER 10
Quantitative Research Findings

10.1 Introduction

In this chapter, the findings of the quantitative study are reported. The chapter commences with a summary of the pre-MOOC survey responses for the courses used in this research. Descriptive statistics are given on the educational backgrounds of participants and about their goals and approaches to learning. These data largely confirm what was found in the qualitative study (Chapter 7); namely, that participants have a strong educational background, enrol mostly for career, knowledge and curiosity reasons, and choose MOOCs over university predominantly because of cost and time considerations.

This chapter also discusses findings from a post-MOOC perspective. The study found a significant positive change in participants’ overall university enrolment intentions between the pre and post-MOOC survey stages. To investigate both the reasons and impact of such a shift, each of the research hypotheses is assessed against the data from these surveys. The analysis shows that while MOOC completion and satisfaction did not affect the general university intentions of participants, attendance at an information session on the benefits of university study did. Moreover, with regard to the host university, attendance at an online marketing session did not impact on participants’ likelihood of enrolment, while satisfaction with the MOOC content and teaching performance did. Overall satisfaction with the MOOC was also shown to impact on participants’ decision to include the host within their consideration set of future university providers.

This chapter is arranged as follows. First, pre-MOOC statistics from both courses are presented and discussed. Next, overall findings from the study are given; these show a significant increase in participants’ university enrolment intentions after engagement with their MOOC. Finally, the individual research hypotheses are supported or rejected based on an analysis of participants’ paired pre and post-MOOC survey responses. In the next chapter, these results are discussed alongside those from the qualitative study to provide a summary of the overall research findings.
10.2 Pre-MOOC

As noted in the previous chapter (§9.5), both the pre and post-MOOC survey responses from each of the case study MOOCs were combined to ensure a sufficient sample size, giving a total of 106 paired responses for analysis. The pre-MOOC statistics are discussed here first.

10.2.1 Participants’ Educational Background

As with the MOOC that was examined as part of the qualitative study (Chapter 7), participants from both the PRINCE2 Primer and Cyber Warfare MOOCs were, in general, highly educated. It has been noted in the previous chapter (see §9.5) that a majority of participants from both these courses (84 out of 106, or 79%) were qualified at bachelor’s level or higher. Table 10.1 provides the full list of qualifications for all participants. These findings are in agreement with earlier research that notes how MOOC enrolments are typically dominated by those having tertiary-level education (e.g., Christensen et al., 2013; Glass et al., 2016; Ho et al., 2015).

<table>
<thead>
<tr>
<th>Tertiary Qualification</th>
<th>PRINCE2 N=54</th>
<th>Cyberwarfare N=52</th>
<th>Both MOOCs N=106</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>9</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Advanced Diploma</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Associate Bachelor</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Bachelor</td>
<td>37</td>
<td>26</td>
<td>63</td>
</tr>
<tr>
<td>Grad Certificate</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Diploma</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Master</td>
<td>18</td>
<td>20</td>
<td>38</td>
</tr>
<tr>
<td>PhD</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 10.1 Educational qualifications of MOOC participants

As with the qualitative study, the result here suggests that participants were not just educationally qualified, they were also educationally committed – with many achieving multiple awards. Such a high level of educational attainment not only accords with much of the earlier demographic research on Massive Open Online Courses, it also provides a useful basis for testing the assumption that MOOC students are not looking for further degree.

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The total number of qualifications given in Table 10.1 exceeds the number of people surveyed since each participant was asked to identify all their tertiary attainments.

160
attainment (i.e., through university) because of their current educational status (e.g., see Sandeen, 2015).

10.2.2 MOOCs versus University

Why did these participants undertake a MOOC in preference to a university course on the same topic? There were two predominant reasons for this. First and foremost, it was because the MOOC was free (72.6% of 106 participants – see Table 10.2). Secondly, it was because the MOOC was seen as needing a lesser time investment than university (56.6%). This latter point related to another leading response, which asserted that university study represented too great a commitment in comparison with MOOCs (34.9%).

<table>
<thead>
<tr>
<th>Reason for MOOC versus University Enrolment</th>
<th>PRINCE2 N=54</th>
<th>Cyberwarfare N=52</th>
<th>Both MOOCs N=106</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOOC was free</td>
<td>41 75.9</td>
<td>36 69.2</td>
<td>77 72.6</td>
</tr>
<tr>
<td>MOOC will take less time</td>
<td>33 61.1</td>
<td>27 51.9</td>
<td>60 56.6</td>
</tr>
<tr>
<td>University too great a commitment</td>
<td>21 38.9</td>
<td>16 30.8</td>
<td>37 34.9</td>
</tr>
<tr>
<td>Testing topic through MOOC</td>
<td>19 35.2</td>
<td>12 23.1</td>
<td>31 29.2</td>
</tr>
<tr>
<td>Already have a degree</td>
<td>13 24.1</td>
<td>15 28.8</td>
<td>28 26.4</td>
</tr>
<tr>
<td>Employers value MOOC certification</td>
<td>11 20.4</td>
<td>6 11.5</td>
<td>17 16.0</td>
</tr>
<tr>
<td>MOOC better value than university</td>
<td>7 13.0</td>
<td>10 19.2</td>
<td>17 16.0</td>
</tr>
<tr>
<td>Testing quality of the host university</td>
<td>8 14.8</td>
<td>7 13.5</td>
<td>15 14.2</td>
</tr>
<tr>
<td>MOOC knowledge equal to university</td>
<td>6 11.1</td>
<td>9 17.3</td>
<td>15 14.2</td>
</tr>
<tr>
<td>Other</td>
<td>7 13.0</td>
<td>7 13.5</td>
<td>14 13.2</td>
</tr>
<tr>
<td>Unaware of university course on same topic</td>
<td>5 9.3</td>
<td>5 9.6</td>
<td>10 9.4</td>
</tr>
<tr>
<td>Better career outcomes likely from MOOC</td>
<td>3 5.6</td>
<td>3 5.8</td>
<td>6 5.7</td>
</tr>
<tr>
<td>I’m unlikely to be accepted into university</td>
<td>0 0.0</td>
<td>6 11.5</td>
<td>6 5.7</td>
</tr>
<tr>
<td>University will teach topics I’ve no interest in</td>
<td>1 1.9</td>
<td>1 1.9</td>
<td>2 1.9</td>
</tr>
</tbody>
</table>

Table 10.2 Reasons for MOOC versus university enrolment

In relation to the potential of MOOCs as a pathway into university study, it is important to highlight that 29.2% (31) of all participants said that MOOCs were preferable to university because they allowed them to test the relevance of the topic area, presumably in a cost-free setting. This suggests that MOOCs are used by some as a type of content taster, a behaviour which may have implications for the university ambitions of those who find such content

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5 The total number of responses given in Table 10.2 exceeds the number of people surveyed since each participant was asked to identify all reasons that made them prefer a MOOC to a university course on the same topic.
suitable to their needs or ambitions. This MOOC-as-taster approach was also mentioned in relation to the host university, with 15 out of 106 participants (14.2%) noting that they were using the course to test the quality of Charles Sturt University.

Relatively few participants saw MOOCs as superior to university in helping them to achieve either knowledge or career outcomes, amounting to just 14.2% (15) and 5.7% (6) for each course respectively. The implication here is that, while Massive Open Online Courses may be preferred to university because they are free and require less time, they are still not widely viewed as a more effective pathway towards two of the more common focal goals (career and knowledge) that are cited by those who take them (see §7.2.1.2 and §10.2.3 below). The data above also shows that, despite the high percentage of those with bachelor degree or higher qualifications, only 26.4% (28) of all participants said that they preferred MOOCs to university because they already had a degree. These facts suggest that university study may be seen as an attractive follow-on study option by at least some who take MOOCs, notwithstanding their educational status.

10.2.3 Focal and Background Goals

As part of the pre-MOOC survey, participants were asked to list all goals that encouraged them to enrol into one of the specific MOOCs from this study. The three most frequently cited goals for both courses combined were ‘to satisfy curiosity for the topic area’ (62.3% of 106 participants – see Table 10.3), ‘to gain knowledge for its own sake’ (61.3%), and ‘to advance an existing career’ (54.7%). Other frequently-cited goals included the opportunity to gain a certificate (46.2%), and the fact that these courses were short (43.4%), free (37.7%) and online (25.5%).

In contrast to these combined figures, there were some differences for each of the two individual MOOCs, with the PRINCE2 Primer course having ‘to advance an existing career’ as the most-cited goal (63% of 54 participants), while for the Cyberwarfare and Terrorism course it was to ‘satisfy curiosity’ and to ‘gain knowledge for its own sake’ (with both obtaining 69% agreement from 52 participants). This difference between courses was almost certainly due to the content of each MOOC, with project management career opportunities clearly more abundant at present than those relating to the protection of digital assets against
cyberwarfare and terrorist activities. This finding supports that of earlier research, where it has been noted that different MOOC topics may attract individuals with a specific goal focus (see Christensen et al., 2013).

<table>
<thead>
<tr>
<th>Goal / Reason for Enrolment</th>
<th>PRINCE2 N=54</th>
<th>Cyberwarfare N=52</th>
<th>Both MOOCs N=106</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfy curiosity for topic</td>
<td>30 55.6</td>
<td>36 69.2</td>
<td>66 62.3</td>
</tr>
<tr>
<td>Gain knowledge for its own sake</td>
<td>29 53.7</td>
<td>36 69.2</td>
<td>65 61.3</td>
</tr>
<tr>
<td>Advance existing career</td>
<td>34 63.0</td>
<td>24 46.2</td>
<td>58 54.7</td>
</tr>
<tr>
<td>Gain a certificate</td>
<td>27 50.0</td>
<td>22 42.3</td>
<td>49 46.2</td>
</tr>
<tr>
<td>Course was short</td>
<td>26 48.1</td>
<td>20 38.5</td>
<td>46 43.4</td>
</tr>
<tr>
<td>Course was free</td>
<td>22 40.7</td>
<td>18 34.6</td>
<td>40 37.7</td>
</tr>
<tr>
<td>Prepare for a new career</td>
<td>16 29.6</td>
<td>14 26.9</td>
<td>30 28.3</td>
</tr>
<tr>
<td>Course was online</td>
<td>11 20.4</td>
<td>16 30.8</td>
<td>27 25.5</td>
</tr>
<tr>
<td>Connect with others</td>
<td>9 16.7</td>
<td>16 30.8</td>
<td>25 23.6</td>
</tr>
<tr>
<td>See if I would later enrol with CSU</td>
<td>9 16.7</td>
<td>12 23.1</td>
<td>21 19.8</td>
</tr>
<tr>
<td>Other</td>
<td>9 16.7</td>
<td>8 15.4</td>
<td>17 16.0</td>
</tr>
<tr>
<td>Learn if online study works for me</td>
<td>8 14.8</td>
<td>7 13.5</td>
<td>15 14.2</td>
</tr>
<tr>
<td>See if CSU can deliver online effectively</td>
<td>5 9.3</td>
<td>6 11.5</td>
<td>11 10.4</td>
</tr>
<tr>
<td>To learn more about MOOCs</td>
<td>2 3.7</td>
<td>8 15.4</td>
<td>10 9.4</td>
</tr>
</tbody>
</table>

Table 10.3
Goals/reasons for doing a specific MOOC

As suggested by the literature on goal theory (see Chapter 3), not all of the goals that appear in Table 10.3 were recognised by participants as equally significant; that is, some were focal and assumed primary importance, while others were more peripheral (that is, they were background goals). This was made evident when participants’ ranked their goals in order of importance (see Table 10.4).

---

6 The total number of responses given in Table 10.3 exceeds the number of people surveyed since each participant was invited to identify all the reasons for enrolling in their MOOC.
Table 10.4
Top-ranked goals/reasons for doing a specific MOOC

The three most frequently top-ranked goals for both MOOCs combined were ‘to advance an existing career’ (29.2% of 106 participants), ‘to gain knowledge for its own sake’ (21.7% of 106 participants) and ‘to satisfy curiosity for the topic area’ (19.8% of 106 participants). Goals relating to cost and time – leading factors in choosing a MOOC over university (see Table 10.2) – were ranked as focal by only 3 study participants (1.9%) across both courses. Once again, there was some variation between the individual courses here, with those enrolled in the Cyberwarfare and Terrorism MOOC more likely to rank ‘knowledge for its own sake’ as the main focal goal (28.8% of 52 participants), closely followed by ‘to satisfy my curiosity’ (26.9% of 52 participants). For those in the PRINCE2 Primer MOOC ‘to advance an existing career’ was cited as the most important goal (selected by 42.6% of 54 participants).

10.2.4 Learning Goals

Recall that learning goals can be broadly categorised as either mastery or performance-oriented (see §3.3). As part of the pre-MOOC surveys, participants were asked to rate their agreement against each of the learning orientation statements that appear in Table 10.5 (with 0=strongly disagree and 5=strongly agree). These statements were adapted from Elliot and Murayama (2008), and were designed to measure participant alignment with either a mastery or performance learning approach.
Statements (1) to (3) below relate to a mastery orientation, while statements (4) to (6) relate to a performance orientation. Within Table 10.5, the mean level of agreement for each statement is given for each MOOC, as well as for both courses combined.

<table>
<thead>
<tr>
<th>Learning Goal</th>
<th>PRINCE2 N=54</th>
<th>Cyberwarfare N=52</th>
<th>Both MOOCs N=106</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mastery</strong></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>(1) Completely master the material</td>
<td>3.51 (1.04)</td>
<td>3.71 (1.36)</td>
<td>3.61 (1.21)</td>
</tr>
<tr>
<td>(2) Understand content thoroughly</td>
<td>4.09 (0.87)</td>
<td>4.23 (0.88)</td>
<td>4.16 (0.87)</td>
</tr>
<tr>
<td>(3) Learn as much as possible</td>
<td>4.33 (0.89)</td>
<td>4.46 (0.75)</td>
<td>4.41 (0.83)</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>(4) Earn a certificate of completion</td>
<td>3.52 (1.22)</td>
<td>3.60 (1.32)</td>
<td>3.56 (1.27)</td>
</tr>
<tr>
<td>(5) Perform well relative to other students</td>
<td>2.61 (1.50)</td>
<td>2.83 (1.58)</td>
<td>2.74 (1.54)</td>
</tr>
<tr>
<td>(6) Perform better than other students</td>
<td>2.31 (1.60)</td>
<td>2.37 (1.67)</td>
<td>2.35 (1.63)</td>
</tr>
</tbody>
</table>

**Table 10.5**
Pre-MOOC learning goal orientations

It can be seen in the Table above that those statements which align with a mastery orientation (1-3) obtained stronger agreement than those for performance (4-6). This result was similar across both MOOCs, indicating that participants, irrespective of their course, were governed more by mastery than performance considerations at the pre-MOOC stage. This finding is made further apparent through the calculation of a combined mean for these same mastery (1-3) and performance (4-6) statements (see Table 10.6).

<table>
<thead>
<tr>
<th>Learning goal type</th>
<th>PRINCE2 N=54</th>
<th>Cyberwarfare N=52</th>
<th>Both MOOCs N=106</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mastery</strong></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>3.98 (0.74)</td>
<td>4.13 (0.89)</td>
<td>4.06 (0.82)</td>
<td></td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>2.82 (1.27)</td>
<td>2.93 (1.32)</td>
<td>2.88 (1.29)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 10.6**
Pre-MOOC combined learning orientations of participants

While not specifically related to the hypotheses of this study, the learning goals of participants were also measured after engagement with each MOOC to determine if there had been any significant change. The results are given in Table 10.7 below.

<table>
<thead>
<tr>
<th>Learning goal type</th>
<th>PRINCE2 N=54</th>
<th>Cyberwarfare N=52</th>
<th>Both MOOCs N=106</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mastery</strong></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>3.95 (0.82)</td>
<td>4.14 (0.85)</td>
<td>4.06 (0.84)</td>
<td></td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>3.17 (1.18)</td>
<td>3.21 (1.36)</td>
<td>3.19 (1.27)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 10.7**
Post-MOOC combined learning orientations of participants
This data shows that, while the mastery learning ratings of participants remained stable across both courses between the pre and post-MOOC stages, there was a post-MOOC increase in mean agreement for performance goal orientation (from 2.88 pre-MOOC to 3.19 post-MOOC). A paired samples t-test showed that this difference was significant: \( t(105) = 2.72, p < .01 \).

Notwithstanding this finding, subsequent analysis showed that any increase in the performance orientation ratings of participants was not related to an increase in enrolment for either university generally or for the host. Nonetheless, given the significant shift in this rating between the pre and post MOOC stages, this topic is recommended as an area requiring further investigation (see Chapter 11).

### 10.3 Post-MOOC

A key aim of this study was to determine the effect of MOOC engagement on participants’ likelihood for later university enrolment, either with the host institute or with some other provider. To assess this, two paired-samples t-tests were conducted to determine any significant change in enrolment likelihood between the pre and post-MOOC stages for both courses combined.

The first of these tests indicated that participants’ mean university enrolment likelihood was significantly higher post-MOOC (\( M = 4.36, SD = 3.36 \)) than pre-MOOC (\( M = 3.82, SD = 3.28 \)), \( t(105) = 2.36, p < .05 \). A further paired-samples t-test showed that the mean likelihood of participants choosing to enrol with the host institution was also significantly higher post-MOOC (\( M = 4.08, SD = 3.44 \)) than pre-MOOC (\( M = 3.45, SD = 3.11 \)), \( t(105) = 2.38, p < .05 \). These results suggest that engagement with a MOOC can influence participants’ future study choices. It also accords with the qualitative study (see Chapter 7), where it was noted that the university enrolment intentions of participants tended to intensify after completion of their course, especially if the experience was satisfying.

While knowing that MOOCs can affect the university intentions of those who take them is an important finding, it remains to be discussed why this change occurred. Some of the likely
contributing factors are looked at in the next section where support for the hypotheses are assessed.

### 10.3.1 Support for Hypotheses

**H1:** Participants who express an increased post-MOOC likelihood of university enrolment are also more likely than other participants to affirm an increase in the mean number of goals that would be better satisfied by university enrolment rather than MOOC enrolment.

To assess this hypothesis, participants were divided into two groups. The first comprised those who indicated an increased university enrolment likelihood between the pre and post MOOC stages; the second indicated no such increase. An independent samples t-test was used to uncover any significant difference in the mean number of goals that each group thought would be better satisfied by university instead of MOOCs (see Table 10.8). The analysis showed a significant difference between these two groups: \( t(104) = 2.84, p < .01 \). This hypothesis was therefore supported.

<table>
<thead>
<tr>
<th>Post-MOOC University Likelihood Increase</th>
<th>N</th>
<th>Mean Pre Goals</th>
<th>Mean Post Goals</th>
<th>Mean Goal Difference</th>
<th>SD Mean Goal Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>46</td>
<td>1.22</td>
<td>1.52</td>
<td>.30</td>
<td>1.35</td>
<td>2.84*</td>
<td>104</td>
<td>.005</td>
</tr>
<tr>
<td>No</td>
<td>60</td>
<td>1.48</td>
<td>1.06</td>
<td>-.42</td>
<td>1.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * p < .01

**Table 10.8**

Post-MOOC goals changes grouped by university likelihood increase

In terms of the relevance of this finding, recall that a multifinal goal network specifies how a single means or subordinate goal can reach multiple end goals (including focal and background goals) (see §3.5). The result above shows that, where an increase in university enrolment likelihood occurs, the pathway between university and the co-active goals of participants also appears to amplify (with university being seen to reach more of these goals than it did at the outset of the MOOC); conversely, where there is no such increase, this same pathway seems to weaken.

For those participants who did indicate an increase in university enrolment intention, the change in goals that would be better satisfied by university rather than MOOC enrolment are
listed in Table 10.9. Note that the largest positive changes occurred with respect to a time-related (background) goal and for the focal goal pathway leading to career outcomes.

<table>
<thead>
<tr>
<th>Reason / Goal for University rather than MOOC Enrolment</th>
<th>Pre-MOOC N=46</th>
<th>Post-MOOC N=46</th>
<th>Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
<td>Total</td>
</tr>
<tr>
<td>Knowledge from university course exceeds MOOCs</td>
<td>20</td>
<td>43.5</td>
<td>19</td>
</tr>
<tr>
<td>Employers value university certification more</td>
<td>18</td>
<td>39.1</td>
<td>21</td>
</tr>
<tr>
<td>University leads to better career outcomes</td>
<td>13</td>
<td>28.3</td>
<td>19</td>
</tr>
<tr>
<td>University offers better return on time investment</td>
<td>5</td>
<td>10.9</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 10.9

Goal changes for participants’ indicating university enrolment likelihood increase

In contrast, for those participants who did not indicate an increase university enrolment intention, the number of goals that would be better satisfied by university rather than a MOOC declined in most cases (Table 10.10).

<table>
<thead>
<tr>
<th>Reason / Goal for University rather than MOOC Enrolment</th>
<th>Pre-MOOC N=60</th>
<th>Post-MOOC N=60</th>
<th>Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
<td>Total</td>
</tr>
<tr>
<td>Knowledge from university course exceeds MOOCs</td>
<td>31</td>
<td>51.7</td>
<td>24</td>
</tr>
<tr>
<td>Employers value university certification more</td>
<td>26</td>
<td>43.3</td>
<td>21</td>
</tr>
<tr>
<td>University leads to better career outcomes</td>
<td>23</td>
<td>38.3</td>
<td>11</td>
</tr>
<tr>
<td>University offers better return on time investment</td>
<td>9</td>
<td>15.0</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 10.10

Goal changes for participants’ NOT indicating university enrolment likelihood increase

H2: For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who successfully complete the MOOC than for those who do not successfully complete.

Of the 106 participants who responded to the post-MOOC surveys, 82 attempted and passed the final exam, while 24 either didn’t sit for the exam or failed to pass it. An independent-samples t-test showed no significant difference in the mean enrolment likelihood for those

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7 For tables 10.9 and 10.10, the total number of responses given exceeds the number of people surveyed since each participant was asked to identify all their reasons for preferring university to MOOC enrolment
who passed \(M=4.45, SD=3.33\) and those who didn’t \(M=4.04, SD=3.51\), \(t(104) = .52, p > .05\). H2 was therefore not supported.

While this result appears to go against other research findings about the impact of goal completion on individuals’ subsequent ambitions (e.g., see Koo & Fishbach, 2010), the hypothesis above assumes a definition of MOOC success that may not have held for all participants. Thus, as noted earlier (§2.5), some who engage with a MOOC may consider their interaction a success despite not completing every component of their course, which includes the final exam (Liyanagunawardena, Parslow, et al., 2014; Reich, 2014). This means that MOOC exam completion may not be a suitable measure of successful goal attainment, thereby also failing (as suggested by the findings here) as a reliable indicator of the strength of participants’ future university ambitions.

Of further note is the high number of study participants who completed their MOOC (82 out of 106, or 77%). This exceeds by an order of magnitude the typical completion rate noted by other researchers (see §2.5). While it is possible that those who self-selected for involvement in this study were also strongly motivated to complete, it is perhaps more likely that the format of these case-study MOOCs (see §9.3) contributed to this high completion rate. This is recommended as an area worth further investigation (§11.9).

**H3:** A participant’s overall satisfaction with a MOOC is positively associated with their likelihood of enrolment into a university course within the next 12 months.

For this hypothesis, a Pearson correlation coefficient was used to assess the relationship between participants’ overall MOOC satisfaction and their likelihood of enrolling into a university course within the next 12 months. No significant correlation between these two variables was found: \(r(104) = .16, p > .05\). H3 was therefore not supported.

Notwithstanding this finding, it should be noted that overall MOOC satisfaction was found to correlate with participants’ likelihood for enrolment with the host institute (see the commentary for H7) – evidence that a positive MOOC experience may have a far greater effect on an individual’s decision to study with the host than on their tertiary study ambitions more generally.
**H4**: For participants of a MOOC, the mean likelihood of university enrolment within the next 12 months will be significantly higher for those who attend a university information session (delivered as part of the MOOC, and which discusses the career and financial benefits of university study) than for those who do not attend this session.

Participants who attended the information session on the career and financial benefits of university enrolment expressed a higher likelihood of university enrolment within the next 12 months when compared with those who didn’t attend (see Table 10.11). This result was significant at the 5% level, supporting the hypothesis: \( t(104) = 2.08, p < .05 \).

<table>
<thead>
<tr>
<th>Attended University Information Session</th>
<th>N</th>
<th>Mean University Likelihood</th>
<th>SD</th>
<th>( t )</th>
<th>( df )</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>74</td>
<td>4.80</td>
<td>3.18</td>
<td>2.08*</td>
<td>104</td>
<td>.04</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>3.34</td>
<td>3.60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* \( p < .05 \)

**Table 10.11**
University enrolment likelihood by information session attendance status

While it might be argued that those who attended this session were already pre-disposed towards university enrolment, a similar impact was not evident on these same groups’ enrolment intentions concerning the host university: \( t(104) = 1.58, p > .05 \). This suggests a clear delineation of influence, with the information session contributing more to an increased university enrolment likelihood, and MOOC satisfaction (see H7, H9) to an increased likelihood of host enrolment.

Given that the main focus of the information session was on the potential for university study to help MOOC participants effectively reach a commonly-cited goal (namely, career success), it is also worth noting any difference in the post-MOOC goal status between those who did and those who didn’t attend this session. A paired samples t-test was used to analyse this, with the results given in Table 10.12 below.

While no statistically significant difference was found in this instance (\( p > .05 \)) there was, nonetheless, a clear distinction in the mean number of goals that each group thought would be better satisfied by university rather than MOOCs (1.42 versus 0.91). This difference was sizeable enough to suggest that the information session may have contributed to the goal
network changes noted in H1. Hence, the effect of goal priming on the future university ambitions of MOOC students is recommended as an area for further investigation (§11.9).

<table>
<thead>
<tr>
<th>Attended University Information Session</th>
<th>N</th>
<th>Mean Post Goals University</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>74</td>
<td>1.42</td>
<td>1.28</td>
<td>1.87</td>
<td>104</td>
<td>.06</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>0.91</td>
<td>1.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10.12
University enrolment likelihood by information session attendance status

**H5:** For MOOC participants, the mean likelihood of enrolment with the host university within the next 12 months will be significantly higher for those who attend a marketing session (delivered as part of the MOOC, and which promotes specific university courses offered by the host institution) than for those who do not attend.

This hypothesis was not supported since there was no significant variation in the post-MOOC likelihood of enrolling with Charles Sturt University in the next 12 months between those who did attend the marketing session ($M=4.25$, $SD=3.36$) and those who didn’t ($M=3.70$, $SD=3.64$), $t(104) = .76$, $p > .05$. Compared to the more generic information session (see H4), the marketing session (which was specifically about the host university and its courses) seemed to have less impact. Nor did attendance at the marketing session signify a greater intent to enrol at university in general, $t(104) = 1.56$, $p > .05$. Thus, specific marketing of the host university appeared to be far less effective as an incentive for enrolment than did participants’ satisfaction with the MOOC itself (see H7, H9).

**H6:** Participants who successfully complete a MOOC are more likely than those who do not successfully complete to include the host university in their consideration set of university providers.

This hypothesis was not supported, with no significant difference observed regarding consideration of the host for those who did and those who didn’t complete the course, $\chi^2 (1, N=106) = .51$, $p > .05$. This is consistent with the findings from H2, where it was noted that MOOC completion did not impact on participants’ likelihood for university enrolment generally.
<table>
<thead>
<tr>
<th>Attempted and passed final exam</th>
<th>Host in consideration set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes = 82</td>
<td>Yes = 48 (58.5%)</td>
</tr>
<tr>
<td>No = 24</td>
<td>Yes = 16 (66.7%)</td>
</tr>
</tbody>
</table>

Table 10.13
Host consideration set inclusion for those who did/did not pass the exam

Despite the lack of support for this hypothesis, it is worth noting the high number of consideration set inclusions for the host (see Table 10.13), amounting to 60.4% (64) of all 106 participants. The next nearest institution was Open Universities Australia, with 26 inclusions (24.5%). Given that a key marketing objective of many firms is to ensure that their products or services enter the consideration sets of as many consumers as possible (e.g., see Crowley & Williams, 1991; Eliaz & Spiegler, 2011; Hauser et al., 2009), this is a noteworthy observation. It also suggests that the technique of free sampling – a method shown to influence consideration set composition in other domain areas such as software (Cheng & Tang, 2010; Liu, Au, et al., 2014) – may be similarly effective within a higher education context.

**H7**: At the conclusion of a MOOC, those who include the host university within their consideration set of university providers will have a significantly higher overall course satisfaction rating than those who do not.

Participants who included the host university within their consideration set expressed a higher overall course satisfaction rating than those who did not (see Table 10.14) and this difference was statistically significant: \( t(104) = 2.90, p < .01 \). H7 was therefore supported. This result accords with findings from the consumer literature, where an association between brand satisfaction and consideration set inclusion has been noted for other domains (Broniarczyk & Griffin, 2014; Hauser, 2014; Lapersonne et al., 1995).
Table 10.14
Overall satisfaction grouped by host university set inclusion

<table>
<thead>
<tr>
<th>Host University in Consideration Set</th>
<th>N</th>
<th>Mean Overall Satisfaction Rating</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>64</td>
<td>8.69</td>
<td>1.13</td>
<td>2.90**</td>
<td>104</td>
<td>.005</td>
</tr>
<tr>
<td>No</td>
<td>42</td>
<td>7.93</td>
<td>1.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .01

In addition to this, a moderately strong correlation was found between participants’ overall level of MOOC satisfaction and their enrolment likelihood for the host university: $r(104) = .27$, $p < 0.01$.

**H8.** MOOC participants who construct a consideration set of university providers and who have previously graduated with a university bachelor’s degree (or higher) will have a larger consideration set than those who have not previously graduated with a university bachelor’s degree (or higher).

Across both MOOCs, 84 participants (79%) had bachelor degree or higher qualifications compared to 22 without (21%). An independent samples t-test showed no significant difference in the consideration set size for those qualified at bachelor’s level or higher ($M = 3.08$, $SD = 3.92$) than for those with lower qualifications ($M = 3.77$, $SD = 3.93$), $t(104) = -.72$, $p > .05$. This hypothesis was therefore not supported. Moreover, as can be seen from the data above, the consideration set size of those with higher qualifications was somewhat smaller than for the other group – a finding which runs counter to other consumer contexts (see §4.5), where those with greater domain experience tend to specify larger consideration sets (Aurier et al., 2000; Rortveit & Olsen, 2007; Viot, 2012).

**H9:** For MOOC participants, the likelihood of enrolment within the next 12 months with the university hosting the MOOC is positively associated with their satisfaction regarding the (a) online format, (b) learning materials, and (c) teaching used within the MOOC.

This hypothesis was not supported for the online format of the course ($p > .05$); there was, however, a moderately strong correlation between host enrolment likelihood and satisfaction with both the learning materials ($p < .01$) and the teaching of the MOOC ($p < .05$) (see Table 10.15). H9 was therefore partially supported.
<table>
<thead>
<tr>
<th>Host enrolment</th>
<th>Online Format Satisfaction</th>
<th>Learning Material Satisfaction</th>
<th>Teaching Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.15</td>
<td>.26**</td>
<td>.22*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.12</td>
<td>.006</td>
<td>.02</td>
</tr>
<tr>
<td>N</td>
<td>106</td>
<td>106</td>
<td>106</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01

**Table 10.15**

Pearson correlation for host enrolment and satisfaction with MOOC elements

In terms of the mixed result above, it is important to consider context. While each of these elements (i.e., online format, materials, and teaching) are considered important sources of course satisfaction (see §2.7), recall that within this study the *online component* was not a leading factor in participants’ decision to enrol into one of the case-study MOOCs (see Table 10.3). This was not the case, however, with *topic-related* considerations, which link closely with both course content and teaching, and which were noted as significant goals for course enrolment (Table 10.3). Thus, the varied impact of these factors on participants’ decision to enrol in a MOOC may also have influenced their post-MOOC assessment of them, contributing to the correlation findings above.

**10.4 Conclusion**

This chapter has examined support for the hypotheses of the study through an analysis of participants’ pre and post MOOC survey responses. A summary of the findings for each of the hypotheses (H1-H9) appears in Table 10.16 below.
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Increased university enrolment likelihood and goal changes</td>
<td>Yes</td>
</tr>
<tr>
<td>H2</td>
<td>Completion of MOOC and university enrolment likelihood</td>
<td>No</td>
</tr>
<tr>
<td>H3</td>
<td>Overall satisfaction and university enrolment likelihood</td>
<td>No</td>
</tr>
<tr>
<td>H4</td>
<td>University enrolment likelihood and information session attendance</td>
<td>Yes</td>
</tr>
<tr>
<td>H5</td>
<td>Host enrolment likelihood and marketing session attendance</td>
<td>No</td>
</tr>
<tr>
<td>H6</td>
<td>Completion of MOOC and host in consideration set</td>
<td>No</td>
</tr>
<tr>
<td>H7</td>
<td>Host in consideration set and satisfaction rating</td>
<td>Yes</td>
</tr>
<tr>
<td>H8</td>
<td>Consideration set size and educational background</td>
<td>No</td>
</tr>
<tr>
<td>H9</td>
<td>Host enrolment likelihood and satisfaction with online format, learning materials, teaching</td>
<td>Partial</td>
</tr>
</tbody>
</table>

Table 10.16
Summary of support for research hypotheses

Pre-MOOC survey responses showed that study participants were in general highly educated as well as motivated for MOOC enrolment predominantly by career, knowledge and curiosity goals, in addition to being governed more by mastery than performance considerations. After engagement with these MOOCs, the survey responses showed a significant increase in participants’ enrolment likelihood, both for university in general and the host in particular.

In the university case, such an increase had little to do with course completion; instead, it was particularly evident for those who attended the information session conducted as part of each MOOC, and which focused on the goal-benefits of university study. Those who indicated an increased university likelihood also reported a significant change to their goal network in comparison to others, with university being seen to reach more goals at the conclusion of the MOOC than it did at the outset.

In terms of the assessed likelihood for enrolment with the host university, the marketing session had little effect, as did MOOC completion. Instead, satisfaction both with the overall MOOC experience as well as with particular elements (learning materials and teaching style) emerged as the most important factors – a finding which suggests that the MOOC experience itself may function as a powerful marketing statement for the host university and its fee-
paying course options. In the next and final chapter, the findings from both studies (qualitative and quantitative) included as part of this thesis are summarised, as well as their implications. Directions for future research are also considered.
CHAPTER 11
Discussion and Future Directions

11.1 Introduction

In this final chapter the overall findings of the thesis are discussed. The results of both the qualitative and quantitative studies are examined alongside each other to draw broad conclusions regarding the use of MOOCs by participants as a pathway into higher education. The research has shown that engagement with a MOOC can have a significant impact on some participants’ university enrolment intentions. Moreover, a positive MOOC experience has been shown to significantly influence the consideration of the host for enrolment.

In terms of an increase in university enrolment intentions, the most significant factor appeared to be attendance at an information session that discussed the career and cost-benefit advantages of attaining a university award. An increase in university enrolment intentions was also accompanied by an increase in the number of goals that participants thought would be satisfied by university rather than MOOC enrolment. In contrast, there was no evidence that successful MOOC completion had any significant effect on the intention to later enrol into a university course.

With respect to an increase in enrolment intentions for the host of the MOOC, both overall satisfaction as well as satisfaction with the teaching and learning materials emerged as the most significant factors, in addition to satisfaction with the convenience of online study. A positive MOOC experience was also associated with a stronger trust relationship between participants and the host provider. There were also a significant number of participants who said that they would consider the host for later enrolment, regardless of whether they completed the MOOC or not. In terms of participants’ consideration sets, there was no significant difference in size based on their previous academic achievements.

The results of this study show that MOOCs containing a goal-related information session may have a significant effect on the goals and university enrolment intentions of some participants, in addition to influencing their choice of an academic provider. It also shows that participants of a MOOC, regardless of their educational background or completion status, are
potential candidates for future university enrolment. Thus, MOOCs represent an excellent source of lead generation, and only a modest conversion rate into university enrolments may be needed to provide a return on investment for providers. Future work involves tracking actual university enrolments that stem from MOOC participation, and looking at how the relationship established between participants and the host university can be actively managed and further developed, both through other MOOCs and through embarking on a customer relationship management process.

11.2 Summary of Results

This thesis has examined the effect of MOOC engagement on participants’ future university enrolment intentions, both generally and with the host institute. This was done using qualitative and quantitative research methods for those enrolled in several MOOCs aligned with Charles Sturt University. Each MOOC was designed as a conduit into further study with this institute, and included information and/or marketing sessions about the goal-related benefits of attaining a tertiary degree, as well as information about specific fee-paying courses of likely interest.

The qualitative study (Chapters 6 and 7) conducted as part of this research consisted of interviews with 19 participants enrolled in a MOOC titled Introductory Certificate in Business Analysis. The quantitative study (Chapters 9 and 10) involved pre and post-MOOC surveys of 106 participants enrolled in one of two courses: PRINCE2 Primer or Cyberwarfare and Terrorism. Across both studies, there was a significant increase in participants’ intention for university study after engagement with their MOOC, in addition to an increased likelihood of enrolment in a university course with the host. Notwithstanding this common finding, there were also some differences across both studies regarding the factors associated with such an increase. In the sections ahead, these differences as well as points of agreement are discussed from both a pre and post-MOOC perspective.
11.3 Pre MOOC

11.3.1 Participant Demographics

As a prelude to a discussion on key findings, in this section the demographic information of those involved in the research is first summarised. As noted in Chapters 6 and 9, the research participants from each MOOC were, in general, well-educated and predominately male. With respect to education, the number of those qualified at bachelor level (or higher) amounted to 79% across both studies (15 out of 19 participants in the qualitative study, and 84 out of 106 in the quantitative study). With respect to gender, there were 74% (14 out of 19) male participants in the qualitative study and 82% (87 out of 106) across the two MOOCs in the quantitative study. These demographic profiles are consistent with those cited by other scholars (Glass et al., 2016; Liyanagunawardena et al., 2015), particularly for STEM-based courses (Hennis et al., 2015).

11.3.2 Focal and Background Goals

The main focal goal of the study participants in these MOOCs was career related. Within the qualitative study, participants did the MOOC primarily to develop their current career or to prepare for a new one (§7.2.1.2); while in the quantitative study, the leading goal for the combined cohorts was to advance an existing career (§10.2.3). For both studies, goals relating to curiosity and the acquisition of knowledge also featured prominently. Within the qualitative study, interview questioning allowed the author to trace these latter goals back to an overarching career goal (§7.2.1.2). While this strong focus on career was undoubtedly connected to the in-demand employment areas covered by the MOOCs under consideration (i.e., business analysis, project management, and computer security), it also accords with findings from the MOOC literature generally, where career factors have been noted as a leading reason for enrolment (e.g., see Carr, 2013; Christensen et al., 2013; Glass et al., 2016).

While focal goals are an important driver of goal-oriented behaviour, background goals are also significant (§3.5). The most common background goals for participants in this research related to cost and time factors (§7.2.1.4 and §10.2.3); that is, outside of the focal goals of career and knowledge, the majority of participants enrolled into their MOOC because of the
absence of cost and the (short) course duration. Other prominent background goals related to the perceived convenience of the MOOC format, and to the establishment of a trust relationship through the use of a MOOC-as-taster strategy (§7.2.1.4 and §10.2.2). Collectively, these goals represented the main reasons why MOOC enrolment was preferred to university, despite the prevailing view that university was likely to lead to better career outcomes (§10.2.2).

11.3.3 Learning Goals

In addition to having specific personal goals, individuals are frequently governed by a particular learning orientation, which may be either performance or mastery-focused (Elliot & Murayama, 2008; Elliot et al., 2005). Within both studies, it was shown that a mastery orientation dominated participants’ learning approach at the outset of their course (§7.2.1.5 and §10.2.4). This aligns with the strong pre-MOOC focus of participants on mastery factors, such as the need to satisfy curiosity (§7.2.1.2 and §10.2.3). It also contrasts with the lower ranking given to performance factors such as earning a certificate of completion (§10.2.3).

11.3.4 MOOC-as-Taster Strategy

There was evidence that several participants deliberately intended to use their MOOC to test either the appropriateness of the career area or the quality of the host. This approach was noted by 5 out of the 19 (26%) participants in the qualitative study (§7.2.1.3), while within the quantitative study (§10.2.2) testing the career area or the quality of the host was cited as a goal by 46 out of 106 (43%) participants.

These findings show that a substantial number of those enrolling in MOOCs may be deliberately using their experience to plot out future career or educational pathways, even if this is not their primary purpose for doing the course. Of course, given that the MOOCs used in this research were specifically designed and promoted as tasters, it is difficult to know if these results can be generalised to other contexts (§11.4). Nonetheless, it does show that the MOOC-as-taster design may be one which can be profitably used by institutions to promote their fee-paying course offerings (§11.6).
11.4 Post MOOC

One of the key aims of this research was to determine the impact of MOOC engagement on participants’ future study ambitions and choices. Accordingly, in this section the post-MOOC changes to participants’ goals as well as their intentions regarding university study and choice are summarised. The factors associated with each of these changes are also discussed.

11.4.1 Impact of MOOC Engagement on University and Host Enrolment Intentions

The findings show an overall increase in the university and host enrolment intentions of participants between the pre and post-MOOC stages. For those in the Business Analysis MOOC (Chapter 7), there was an increase in the number of those intending to study at either university or with the host, as well as a general increase in the strength of intention for those who previously said that they wanted to pursue one or both these educational pathways (§7.2.2.2 and §7.2.2.5). For the MOOCs in the quantitative study, a statistically significant shift in enrolment likelihood was observed between the pre and post-MOOC stages for both university generally and the host in particular (§9.3).

What factors were associated with these overall changes in intention? The main points investigated as part of this thesis concerned participants’ focal, background and learning goals, as well as the impact of MOOC completion, satisfaction, and marketing/information sessions on future university enrolment intentions. Each of these factors are reported on next.

11.4.2 Focal and Background Goals

As noted above, the goals that participants most often cited for doing their MOOC related to career, knowledge, and curiosity, as well as the fact that each of the MOOCs were free and short in duration. This was true for participants in both the qualitative and quantitative studies (§7.2.1.6 and §10.2.2). Other common goals related to trust and convenience factors. However, in terms of the goals that made MOOC enrolment preferable to university – for most participants this came down to cost/time issues (§10.2.2).
Was there evidence of a change in goals with respect to a university pathway after participants had interacted with a MOOC? The answer is yes. Within the qualitative study, MOOC engagement provided many participants with an increased knowledge about the business analysis career option, which in turn often led to greater clarity about the focal goal they should target. There was evidence, also, of a changed understanding about how university could better reach existing or modified goals, including background goals such as those relating to cost-benefit considerations (§7.3).

This latter result was consistent with findings from the quantitative study, where it was shown that the number of goals which participants thought would be better satisfied by university in preference to a MOOC increased between the pre- and post-MOOC stages (§10.3.1). Moreover, it was shown that this increase was highest for those whose university enrolment likelihood also increased (§10.3.1). This was not the case for those with a lower post-MOOC university likelihood, where the goals thought to be better satisfied by university actually decreased. In addition, there was evidence that the number of university-relevant goals was highest among those who attended an information session where the potential for a university course to help participants attain such goals was specifically discussed (§11.4.7).

11.4.3 Learning Goals

It has been previously noted by researchers that a change in the focal and background goals of learners may result in the adoption of a new learning orientation (DeShon & Gillespie, 2005). Bringing these two concepts together, it was posited that those who changed or strengthened their university intention might also change their learning orientation as a result of the MOOC experience (§5.2).

The qualitative study showed no evidence of any such orientation change between the pre and post-MOOC stages (§7.2.2.4); and while the quantitative study did show that participants increased their performance orientation between the start and end of their course, the mastery orientation was still dominant (§10.2.4). Moreover, this increase in performance orientation for those in the quantitative study, while statistically significant, could not be linked with either an increase in general university study intention or an intention to study
with the host – a fact which suggests that further work is needed to explain the significance of any learning orientation shift (§11.9).

11.4.4 MOOC Completion

There was no conclusive evidence to suggest that MOOC completion had any impact on participants’ intention to study at university or with the host. Within the qualitative study, completion of the MOOC did appear to associate with an increased likelihood of university enrolment (§7.3); however, all but two of those interviewed finished the course, making the sample size for non-completers very small. Within the quantitative study, where the sample size for non-completers was larger (24, or 23%), it was shown that course completion did not impact on the decision to study at university or with the host (§10.3.1). This latter result shows that, from a marketing perspective, the impact of MOOC non-completion may be overstated, since both completers and non-completers alike could be equally as receptive to the prospect of future university study (Howarth et al., 2016). Notwithstanding this observation, given the low sample sizes for non-completion in both studies, it is recommended that further research be conducted on the impact of MOOC completion before any firm conclusions are drawn (§11.9).

11.4.5 MOOC Satisfaction

Participant satisfaction with each of the case-study MOOCs was an important factor in their consideration of the host for future university enrolment. Within the qualitative study, satisfaction with the MOOC was also aligned with an increase in trust concerning the host and their ability to deliver a quality online course, which in turn encouraged several individuals to express an increased intention of enrolment with the host (§7.2.2.2). The results of the quantitative study also showed that those who were satisfied with their MOOC were more likely to consider the host for enrolment (§10.3.1). Indeed, overall satisfaction emerged as a more important factor than marketing in this regard (§11.4.6).

In addition to overall satisfaction, the quantitative study looked at satisfaction with particular elements; namely, the online format, learning materials, and teaching methods used within each MOOC. Here, satisfaction with the learning materials and teaching of the MOOC was
shown to correlate with participants’ consideration of the host for enrolment (§10.3.1). In addition, satisfaction with the convenience of online study appeared as a major factor within the qualitative study for consideration of both university enrolment in general (§7.2.2.2) as well as consideration of the host (§7.2.2.3).

11.4.6 Marketing

Within the qualitative study, the marketing session focused on the exclusive promotion of CSU courses. The session was also used to emphasise the similarity in content and delivery style between the MOOC and selected Charles Sturt University courses. In the quantitative study, two separate marketing-style sessions were presented as part of each MOOC: One a dedicated marketing session, similar to that noted above; and the other an information session, which dealt with the advantages of university for achieving career outcomes. In this section, only the dedicated marketing sessions are discussed.

The impact of each of the marketing sessions on participants’ choice to study at university or with the host appeared to be minimal. Indeed, within the quantitative study, there was no significant difference in the likelihood ratings for either university or the host with respect to those who did, and those who did not, attend this session (§10.3.1). Within the qualitative study, the marketing session appeared most effective in providing participants with an awareness of follow-on study options, without necessarily having a significant effect concerning their choice of university (§7.3). Combining these insights with the satisfaction findings above, the marketing implications seem clear: The quality of the MOOC experience to a large extent markets the university and its associated courses; an overt marketing presentation is likely to have less impact.

11.4.7 University Information Session

Within the quantitative study, it was shown that participants who attended the information session, in comparison with those who didn’t, nominated a higher number of goals that would be better reached through university (§10.3.1). Moreover, the discussion on the cost-benefit advantages of university that occurred here may also have helped dispel the notion that MOOCs were a better study option simply because they were free and short in duration. This
was suggested by both the higher university enrolment intentions for those who attended the information session, as well as an increase in the relevant focal and background goals that could be better reached by university rather than through MOOCs for those whose university intentions also increased. These observations are consistent with the research presented earlier, which showed that, where a strong connection between a subordinate goal and a focal goal is established, some individuals are likely to follow this pathway even if it means ignoring one or more background goals (Kruglanski et al., 2013). It is also supported by the literature on goal shielding, which discusses how peripheral goals may be suppressed, limiting their effect on the choice of a subordinate pathway (§3.6) (Kopetz et al., 2012; Kruglanski et al., 2013).

The kind of impact obtained by the information session is captured by the following quote from a participant in the qualitative study who witnessed similar marketing material made available through the host’s website:

*If I’d seen [the session on ROI for a university degree] several years ago, I would probably have finished a degree by now.* [P15 - Male, 31-35]

This, and the findings above, suggest that the use of information sessions may have altered some participants’ value perceptions about education which, in turn, served to increase the number of goals in the active goal set that might be successfully reached through a university subordinate goal.

### 11.5 Research Questions and Findings

In this section, the findings of the thesis are briefly summarised against each of the research questions presented in Chapter 1 (§1.2).

**Research Question 1:** What goals do participants seek to satisfy when they enrol in a MOOC? Which of these goals are focal (primary) and which are secondary (background goals)?

The most frequently-mentioned goals for enrolling in the MOOC within the qualitative study related to career, convenience, cost, knowledge, curiosity, time, and trust (§7.2.16). For the MOOCs within the quantitative study, the main goals related to curiosity, knowledge, career, time, cost and certification (§10.2.3). Of these, the main *focal goals* across both studies
involved career, curiosity and the acquisition of knowledge, with career-related goals being the most prominent. In terms of background goals, cost and time factors were the most cited, although convenience, and the establishment of an educational trust relationship also ranked highly (§11.3.2). While not a leading goal in itself, using the MOOC as a taster for future study options was a strategy used by several participants alongside their other focal and background goals (§11.3.4).

**Research Question 2: Do the focal and background goals of MOOC participants make MOOC enrolment preferable to university enrolment; and if so, why?**

It was observed that the preference for MOOC over university enrolment could largely be explained in terms of background goals relating to cost and time (§7.2.16). This attitude was consistent across both studies (§10.2.2). This was despite the perception that university was more likely to fulfil participants’ focal goals, particularly those relating to career (§10.2.2). The reason for these views could often be explained in terms of the perceived cost-benefit of MOOCs versus university – although it is worth noting that this cost-benefit appraisal (in favour of MOOCs) could often be tilted the other way through the use of an information session about the return on investment for university study (§11.4.7).

**Research Question 3: What is the effect of MOOC completion on participants’ goal intentions to enrol in a university course?**

As noted in §11.4.4 no strong evidence emerged to suggest that MOOC completion increased participants’ intention to study at university or with the host. This was particularly evident within the quantitative study, where no significant difference was found between completers and non-completers in terms of their university enrolment likelihood (§10.3.1). Despite these observations, given the low sample sizes for non-completion across both studies it is recommended that further research be done in this area (§11.9).

**Research Question 4: For those MOOC participants who express a new or enhanced goal intention for university enrolment, is this accompanied by a change in their focal and background goals and/or their approach to learning?**
Within the qualitative study, no evidence emerged of any change in learning style over the duration of the MOOC (§7.3). Results from the quantitative study, however, showed a significant increase in performance orientation, although this was not associated with any change in intention for university enrolment (§10.2.4). For these reasons, it is recommended that further research be conducted on this topic (§11.9).

**Research Question 5: Can a marketing appeal that occurs as part of the MOOC influence participants’ goal intentions for university enrolment or the choice of a university provider?**

The research showed that a specific marketing session had limited effect on participants’ intention to enrol at either university or with the host (§11.4.6). This was especially evident in the quantitative study, where no significant difference was found in enrolment likelihood between those who did/didn’t attend this marketing session (§10.3.1).

The opposite conclusion was reached, however, concerning attendance at an *information session* which discussed the cost-benefits of university versus MOOC study. The enrolment likelihood of both university and host enrolment for those who attended this session was significantly higher than for those who did not (§10.3.1). Moreover, those attended this session also identified (between the pre- and post-MOOC stages) a higher number of goals that university would satisfy when compared to those who didn’t attend (§11.4.7).

**Research Question 6: Can satisfaction with the MOOC experience influence the consideration process when choosing a university provider?**

Findings from the qualitative study showed a 23% increase in the consideration of the host as a result of a satisfying MOOC experience (§7.2.5). The quantitative study also showed an increase in host consideration relating to overall satisfaction (§10.3.1).

The satisfaction which participants felt towards particular elements of their MOOC also appeared to influence their consideration of the host for future study. This was shown most decisively in the quantitative study, which found a significant correlation between satisfaction with both the learning materials and teaching of the MOOC and consideration of the host for enrolment (§10.3.1).
Research Question 7: Do the previous educational experiences of MOOC participants influence their formation of the consideration set of university providers?

Given that a majority of participants in the MOOCs from this study were qualified at bachelor’s level or higher (§7.2.1.1 and §10.2.1) the main conclusion reached is that a high educational level is not in itself a disincentive to later enrol in a university course (§10.2.2). This is further confirmed by the positive attitude towards continual learning expressed by many participants (§11.6).

In terms of the effect of the MOOC experience itself on the consideration of the host, it was shown within the quantitative study that a large proportion of participants, irrespective of their completion status or views about MOOC satisfaction, would consider the host for enrolment (§10.3). This was consistent with a related finding from the same study, which showed a statistically significant shift in host enrolment likelihood between the pre and post-MOOC stages (§9.3).

11.6 Practical Contributions

The findings from this research show that MOOCs have the power to function as a pathway into university for some participants, as well as increasing their consideration of the host provider. This is in spite of the high level of tertiary qualifications held by most research participants (§7.2.1.1 and §9.5) – a fact which suggests that these individuals were open to the prospect of attaining multiple awards. This aligns with the continual learning attitudes of those in the qualitative study (§7.2.1.1). It is also consistent with the intention of many participants to further an existing career or to search out and/or prepare for a new one through an educational pathway (§7.2.1.2 and §10.2.3). For these reasons, MOOC study should not be seen as an isolated educational event. Rather, participants of a MOOC typically come with certain educational experiences (university, other MOOCs, etc.) and several of them are likely to seek further educational pathways after the completion of their course.

In terms of the factors that might influence participants’ decision to move from MOOC to university, the research findings suggest that an increase in intention can in part be explained by a change in the overall make-up of an individual’s active goal set, and the potential of a
university course to reach the goals therein (§7.3 and §10.3.1). Moreover, the use of an information session about the goal-related benefits of university was identified as the most likely and significant catalyst for such a change (§10.3.1). From a practical perspective, this suggests that a similar information session might be used by other MOOC providers to strengthen the link between a university pathway and the career goals of participants, in addition to helping them overcome concerns relating to time and cost. This same session could also be used to identify the most likely candidates for university enrolment. These candidates might then be targeted as priority leads for university conversion activities.

In addition to participants’ university goals in general, this thesis looked at the marketing potential of MOOCs with respect to the host university. In particular, the marketing power of MOOCs appears to be threefold: Firstly, they serve to increase brand recognition of the associated host university among participants; secondly, MOOCs may function as a trial for the fee-paying courses offered by the host; and thirdly, MOOCs offer the opportunity to overtly market the host’s university courses. In terms of brand recognition, it was shown within the qualitative study that a MOOC fosters general brand awareness of the host, particularly for those who may not have interacted with them previously (§7.2.2.5). Since brand awareness is a pre-condition of the consideration process (Eliaz & Spiegler, 2011), this is an important first step in the use of MOOCs as a pathway to enrolment with the host institution.

Concerning the use of MOOCs as a trial of the host’s courses, it was shown that a satisfying MOOC experience can impact on the consideration of the host for future enrolment. Indeed, it was evident that some participants were deliberating using their MOOC in this fashion (§7.2.1.3 and §10.2.2). A satisfying MOOC experience also helps to build a trust relationship with the provider (§7.2.2.3). In addition to the impact of overall satisfaction on participants’ consideration of the host for enrolment, satisfaction with the learning materials and teaching were shown to associate with host enrolment intentions (§10.3.1), as was satisfaction with the convenience of online study (§7.2.2.3). This shows that these elements need to be given priority in the design of any MOOC intending to function as a marketing vehicle for the host.

With respect to the dedicated marketing of the host’s university courses, while this created an increased awareness among attendees about possible study options (§7.3), there was no
evidence to suggest that it made any significant difference to their enrolment intentions (§10.3.1). Such an overt marketing appeal may be best looked at as an awareness-creating activity, with MOOC satisfaction more likely to be a salient factor when it comes to enrolment intentions. In relation to marketing, it also worth noting that the high attrition rates that typically occur within MOOCs may not necessarily impact their marketing potential, since evidence emerged from this research that both completers and non-completers alike may be candidates for university conversion (§10.3.1).

Based on the results of this study and the observations above, MOOCs have the potential to offer a return on investment because of their potential to function as a pathway into one of the host’s fee-paying courses. As an example, the MOOCs in this study cost approximately A$20,000 to design and deliver. A postgraduate enrolment in a similar fee-paying course (for those completing) is about A$38,000. Thus, if only one MOOC student makes the transition from MOOC to Charles Sturt University, this represents approximate cost recovery for the institution; while if two students make the transition, this amounts to a substantial return on investment. Hence, only a small number of enrolments are needed to make the venture profitable.

Finally, it should be reiterated that an increased university or host intention does not signify a definite university enrolment; nor does it mean, even for those who later enrol in a university course, an immediate transition. In the typical case, any such conversion is most likely to occur through the establishment of an ongoing relationship, perhaps through other MOOCs or through a defined customer relationship management process. Indeed, this relationship element may be the missing link between intentions and the actual act of enrolling at university. It also emphasises the difference between an individual’s intended goals and the goal activation needed to make those goals a reality (§3.2). The use of a customer relationship management process is therefore recommended as an area of future research (§11.9).

11.7 Theoretical Contributions

In addition to its practical contributions, this thesis has also contributed several advancements in theory. One such contribution involves the synthesis of goal theory and
consumer choice behaviours into a framework for the evaluation of online services such as MOOCs. This framework emerged from a study of the literature on MOOCs, goal theory and consumer choice, and is most fully enunciated in the propositions chapter of the thesis (§5.2). In addition to evaluating educational services, this framework may have broader applicability, such that it could also be used to understand how goal-oriented consumer behaviour might intersect with the consideration and choice of other types of online services or products. The application of this framework to other domains is suggested as an area of future research (§11.9).

Another theoretical contribution of this thesis involves the nuancing of different goals types for those who undertake MOOCs. Much of the literature to date has treated most participant goals as equally important in the decision to undertake a Massive Open Online Course (§1.5). Within this work, goals have been classified as either focal or background, and ranked in importance (§7.2.1 and §10.2.3). This has given insight into how less ascendant background goals can influence the choice of an educational pathway (§11.3.2) – an approach that might be profitably applied to different product and service domains (§11.9).

A further theoretical contribution of this work involves the analysis and description of the evolution of MOOCs and their fragmentation into various specialised courses (§2.2) – an evolution spurred on chiefly by the quest of higher educational providers to ensure MOOCs satisfy their institutional goals (§2.3). This analysis underscores one of the main driving forces behind the continual development of the MOOC format, and signifies the importance of the current work in detailing strategies that may make MOOCs financially viable.

11.8 Limitations of the Research

This research presented here is not without its limitations, and in this section these shortcomings are acknowledged and justified. In terms of the generalisability of findings, the main limitations concern the structure of MOOCs that were used as part of the research, the MOOC topics, the use of a likelihood assessment as a way to determine participants’ future study intentions, and the size of the participant samples (particularly for non MOOC-completers) used within each of the courses that were studied.
The MOOCs featured as part of this research were not run on a popular commercial platform such as Coursera or eDX. Instead, they were conducted on a private platform associated with Charles Sturt University. Also, unlike many MOOCs, the content of these courses was synchronous, with live lectures conducted each week as part of the course. Thus, it is not clear whether the results obtained here will hold for more traditional MOOC formats. It should be noted, however, that the MOOC concept is not homogenous (§2.2) and thus all MOOC research is likely to suffer from this limitation.

In addition to the considerations above, the MOOCs used in this research were also primarily designed as marketing vehicles through the inclusion of specific marketing and information sessions. Given the possible influence on participants’ future university study intentions for those who attended the information sessions, it is difficult to estimate the impact of MOOC engagement for courses where these don’t appear. It does, however, suggest that MOOCs may benefit from the use of a dedicated marketing and information session as part of their design. The courses that were studied as part of this research were also technically-focussed and had strong career alignment. This being the case, the same results may not hold for MOOCs designed to cater for leisure learners in preference to those wanting to follow a specific career pathway. Given the high focus of many MOOC participants on career outcomes (§2.8) however, such a limitation is only likely to be minor.

Another limitation concerns the way that university and host enrolment intentions were measured – that is, as an assessed likelihood immediately following the course (§9.7). Given that consumer intentions tend to weaken over time (Esch et al., 2006), it would not be surprising if these likelihood estimates represented an upper bound on participants’ intentions for university enrolment. And of course, actual course enrolment was not measured as part of the research – mainly because it is not unusual for substantial time to elapse between a goal intention and any subsequent action (§1.6). This suggests that to accurately measure the MOOCs’ impact, a follow-on study is needed to track exactly how many participants actually enrolled into either university or a Charles Sturt course (§11.9).

Another potential limitation concerns the small number of participant responses, particularly around non-course completion. To reduce the impact of the small sample sizes, the two MOOC participant populations within the quantitative study were combined to assess the
hypotheses, including those relating to course completion. While this is another potential limitation, study participants from both courses shared similar demographic profiles, justifying the approach (§9.5). Notwithstanding this, the number of non-completers by traditional standards was still very small, so it is recommended that further study be done on this point (§11.9).

11.9 Directions for Future Research

The outcomes of this thesis offer multiple opportunities for further research. Some of these involve the clarification of uncertain findings due to, for example, conflicting results between the qualitative and quantitative studies, or because of low sample sizes. Others involve the investigation of new, though related, areas. Yet others involve the application of frameworks used in this thesis to different product and service domains.

One topic worthy of further investigation is the impact of MOOC completion (and non-completion) on the future study intentions of participants. This was because of a difference in findings concerning this point across both the qualitative and quantitative studies. In addition, due to the high completion rates of participants, any differences between the completers and non-completers groups was difficult to establish. There was also a conflict between the qualitative and quantitative studies on the impact of satisfaction with online learning elements that needs resolution (§10.3.1).

Aligned with the above point, further investigation is warranted into the high completion rates of participants in this study. Was it due to the format of these MOOCs, which consisted of live weekly webinars by an acknowledged industry expert? The MOOCs also featured non-compulsory homework questions, and a multiple choice final exam, making the study experience less onerous than for many other MOOCs. Further work is needed to determine what part of this format, if any, may have been conducive to student retention.

There was also a lack of clarity on the impact of learning goal changes across both studies. Within the qualitative study, there was little evidence for a learning goal change. And while in the quantitative study there was a significant increase in the performance goals of participants generally, there was no evidence that this was linked to either an increase or
decrease in university enrolment intention. Thus, further work is needed to ascertain the causes of these learning goal changes and their likely impact.

Another possible area of research relates to the use of goal priming as a technique to encourage more MOOC participants to undertake a university course. While this approach was taken to some extent within the MOOC information sessions, it was mostly confined to a discussion of career and cost-benefit factors (§9.3). Could a broader approach that discusses how university might help participants to attain other common educational goals be of still greater benefit?

Another potential topic of further research stems from the use of enrolment intentions as a proxy for actual university enrolment. Given that intentions tend to weaken over time (Esch et al., 2006), it is recommended that actual conversion tracking of participants take place to determine the full effectiveness of MOOCs as a conduit into higher education. Given that many participants – including those who indicated a high likelihood of university enrolment – may not follow such a pathway immediately, this is likely to be a long-term exercise. Since many participants may be inclined to take additional MOOCs before embarking on any subsequent university study (see Ho et al., 2015), it also presents a challenge over how to determine which MOOC, if any, provided the final incentive to enrol in a given university course.

From a theoretical perspective, as noted in §11.7, the application of the consumer goal framework presented in this thesis might also be applied to other online service domains beyond education. Can this same framework be used to influence the consideration and choice processes for domains where the consumer has access to a product or service for evaluation? The cataloguing and ranking of goals into focal and background categories might also be used within other domains to illuminate the underlying choice processes of users. As with the study presented here, it is possible that the most prominent focal goals do not always guide user choice – a fact which may help product and service providers to influence the key determinants of consumer behaviour in a variety of purchase scenarios.
11.10 Concluding Remarks

This thesis has demonstrated the potential of MOOCs to function as a pathway into higher education for some who engage with them. Leveraging such a phenomenon may provide a return on investment for MOOC providers. The most common focal goal for doing the MOOCs studied as part of this research related to career. The most salient background goals in choosing a MOOC over university related to cost and time factors. While the original goals of participants may not have fully aligned with university enrolment at the outset of their MOOC, the research showed that future university consideration was still flagged as a possibility by multiple individuals, a number of whom used their MOOC as a taster for a specific career pathway, or to test the online delivery capabilities of the host.

In terms of increasing participants’ intentions to study at university, attendance at a specific in-MOOC information session that focused on the goal-benefits of university study was shown to be the most effective strategy. At the completion of each MOOC, those indicating an increased university intention also reported a significant change to the goals which they thought university would be able to reach when compared with their pre-MOOC status. This change in the goal network of some participants is likely to have come about as a result of either the MOOC experience or because the information sessions noted above helped them better understand how their educational goals might be more effectively reached through a university pathway.

Regarding the effect of MOOCs on participants’ intentions of enrolling with the host, neither the marketing session nor completion of the MOOC had any significant effect. Instead, satisfaction both with the overall MOOC experience as well as with particular elements (learning materials, teaching style, and the convenience of online study) were shown to be the most important factors. In addition, a satisfying MOOC experience increased both brand awareness of the host as well as the trust relationship.

The power of MOOCs is that they have the potential to capture the audience who are in the problem-recognition phase with respect to education and career goals, and to do this in a technology setting that is representative of the distance learning environment of the host university. This provides students with the opportunity to evaluate potential fee-paying
courses with respect to their focal and background goals. The MOOC therefore may become the starting point of a marketing relationship with participants, and any subsequent transition to a university course with the host institution becomes a type of repeat business.
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Appendix 1

Pre-MOOC Interview Questions

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

4) Let’s turn now to the current MOOC. Where did you learn about it?

5) Why did you enrol in this particular MOOC?

6) Is the topic content of this MOOC related to your current employment?

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

11) Would you consider university enrolment in the future? Why or why not?

12) Can you tell me what you know about the university that is hosting this MOOC?

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?
Post-MOOC Interview Questions

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

6) Would you consider university enrolment in the future? Why or why not?

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?
Appendix 2

Pre-MOOC Interview Transcripts

P1, Male, 41-45.

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a BSc in Cognitive Science. I got that in ’96. And then more recently I got a certificate in Systems Engineering, which was about 8 university extension courses through University of California, San Diego. And that was great but a little tricky to do in retrospect – to do non-MOOC stuff. Typically driving 45 minutes one way to get to a couple or three hours of class. More recently I took a couple of classes through Coursera – one on Intro to Systems Engineering, and one on Learning How to Learn. I’m taking the Charles Sturt course in Business Analysis.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I really need to get up to speed on a lot of things, and that’s why I’m taking courses generally. Specifically why MOOCs – they’re very convenient. I described earlier how twice a week I drove out and back to do an on-campus course. With the MOOCs, you don’t have to do that. I was actually listening to some MOOC lectures last night – around 9 at night. That just wouldn’t work with a conventional course. One of the things I’ve found, at least with the Coursera ones is that if you want you can run them at different speeds. So I often run them at 125%. Because I think, some speakers – and by training - speak a little slowly. At least some subjects I can absorb it a little faster. Some of these lectures are quite long and I think I can absorb it at a faster pace.”

“Another thing with MOOCs, I appreciate the fact that they give it in multiple modalities. I tend to absorb things best when reading things – looking at diagrams, reading the things. So it’s good to have not just the lecture format but also reading along with it. So typically I’d read the material and then I’d watch or listen to the lecture – so the lecture is a reinforcement of what I’ve read.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“[It’s about] moving up the corporate ladder. I work for a company and we just don’t do business analysis in any sort of a serious way. This also goes for the other MOOCs I’ve taken, or even adult education – it’s generally trying to move up the ladder. Either me personally or my division is missing some sort of a skill set.”

“If I was applying for jobs the credentialing would be useful, especially with a known university. But for me personally I have job, it’s pretty stable. So it’s mostly about the additional skills. Both for me and having things at hand that I can give the more junior staff. For instance, because I took it I’ve encourage a number of the more junior staff to take the Intro to Systems Engineering course [through Coursera. And I’ll do that with other courses. I’ll basically do a MOOC myself and then go, ‘does this fit, is this right for the team, etc., etc.’”
4) Let’s turn now to the current MOOC. Where did you learn about it?

“One of my colleagues has basically switched hats to be a Business Analyst and I think he was doing some Googling and found it and sent it out. I looked at the link and went, ‘Oh. I definitely needed to get up to speed on this myself’.”

5) Why did you enrol in this particular MOOC?

See response to Q3: “I work for a company and we just don’t do business analysis in any sort of a serious way. This also goes for the other MOOCs I’ve taken, or even adult education – it’s generally trying to move up the ladder. Either me personally or my division is missing some sort of a skill set.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q3: “I work for a company and we just don’t do business analysis in any sort of a serious way.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“It’s relevance to the work team.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“Work commitments.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“I’m definitely going to take more MOOCs, partially based on this and partially based on other courses. I’m pretty sold on MOOCs as the way to educate myself in the future – either MOOCs or courses where I take it with my colleagues all at the same time. Because obviously that’s sort of a group experience where you all get up to speed at the same time - that can’t really be replicated with a MOOC. But yeah I’m planning on taking a whole bunch of courses, either for holes in my understanding or holes in the skills of my group.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“A lot of it’s convenience...I can do it at times that wouldn’t work for a standard course. When I took the university extension it was difficult to spend an hour and half getting to and from the course. Another thing that I found is quite nice is how they do the assignments. I’m sort of used to – I write something – you submit it – you wait for the instructor to come back - oh I got this wrong, let’s resubmit it. As opposed to: Here’s the thing, come up with the assignment, submit it, I get feedback the next day. That’s great. And to get the response on the quizzes that same day, or actually within moments. It’s great.”

11) Would you consider university enrolment in the future? Why or why not?

“[No]. You’re familiar with Coursera where they say you have this certificate for the course and you can do certain things if you pay. And what you pay is very nominal. Around $65. I’m used to paying thousands for a
So $65—you know, that’s almost impulse buying material. I mean, you spending a non-trivial number of hours on the course but the money is, $65—that’s a meal—a high-end meal, but that’s easy.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I don’t know a lot about them, sorry.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

See response to Q11—university is not an option at this point.

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q11—university is not an option at this point.
P2, Female, <30.

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“My undergraduate bachelor degree is in psychological science and I also have a postgraduate diploma of psychology. My undergraduate was with Griffith University and my postgraduate was with Bond University.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“This is the first one and I actually didn’t know anything about them.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I think for this short course, it would mainly be for my career path opportunities. I’ve been looking at so much study, and thinking some of it would be really interesting, but I know that it wouldn’t aid my career whatsoever; it would just be for personal curiosity. In this instance, the short course is definitely for the career but I do consider other study options as just a personal development.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I’m looking for further study options and I came across one for Project Management but it had obviously run back in 2013 so I followed the trail and found this one that was just about to begin, and I thought it would be a really good opportunity.”

5) Why did you enrol in this particular MOOC?

“When I found it online I signed up pretty much immediately. And then I notified all my colleagues that I work with about the University and how it offers these courses – and to keep an eye out because I think it’s a wonderful idea, even if it’s just for people to keep their brain active.”

6) Is the topic content of this MOOC related to your current employment?

“Not at the moment. I currently work for the QLD state government so I am currently doing things like communications enhancements, internal and external, for a taxation position, and engaging with stakeholders and running projects – so there are aspects of business analyst work that falls into my job.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“I have had a relieving opportunity with our specialist IT systems, and their role is specifically business analyst; and so, as succession planning, that’s where I want to go if I stay with the organisation. So I’m hoping that having this on my resume will give me that competitive edge when that time comes.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“Work would be the major one – just because it’s the most time consuming. But as the lecturers are on late at night, it’s pretty convenient. But yes, work is the only real roadblock that I could see.”
9) Let's talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“I am looking [for courses]. Online is preferred because I do work fulltime. But I think a short course will be perfect – because it’s been a while, I graduated in 2011; so it will be a good stepping-stone getting back into studying as well.”

“Obviously having a degree in psychology, this [BA course] is all a bit left-field for me. I’ll see how I go with this. I am definitely looking into Project Management university degrees or certificates. So if I really do enjoy this short course, I think definitely getting back into uni would be an option.”

“I believe that if enjoy the Business Analyst course I will go back and do the Project Management course [a previous course offered through IT Masters] just for my own curiosity and learning opportunities. I understand that you don’t get a certificate with that but at least I still have the skills to take away with me.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

See response to Q9: “a short course will be perfect – because it’s been a while, I graduated in 2011; so it will be a good stepping-stone getting back into studying as well.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q9: “if I really do enjoy this short course, I think definitely getting back into uni would be an option.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I know there is a university linked to the MOOC but I haven’t done any research into it.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Yes definitely. Being Queensland-based I don’t know whether there is any Charles Sturt around here but as long as they offer online education, it would be a possibility.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

“In Australia, you kind of go in blind to university. I went into uni straight out of school and I was a bit naïve – I didn’t think it would matter where I got my degree, as long as I had a degree. But now as I’ve grown up, I really should have aimed for a higher university, or a university that offered different services. And having a trial where I could have taken a short one, it would have been like a bit of a taster for university itself, and which one would have been more beneficial to my learning style. So I think it’s a really good idea.”
P3, Male, 36-40

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I’ve completed two MOOCs at the moment through Open2Study. I’ve got a third one starting on Monday. And I’m in the process of completing one through Charles Sturt with IT Masters – so going really well.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’m using MOOCs to back up the workplace experience I’ve had throughout my career. I’ve got a lot of workplace experience but no credentials. No university. I finished high school and went straight into work. So everything I’ve done is essentially workplace training – nothing that shows methodologies or anything along those lines; and so I’m trying to bolster my experience and my workplace effectiveness by getting that methodology, and I’m working my way to getting that through MOOCs.”

“My perception is that employers don’t know about MOOCs. As soon as I say ‘I’m doing a MOOC’ there’s a blank look of not knowing what it is. I then have to explain to them what a MOOC is. I’ve done this with my current employer, and when I told her she was impressed with the concept and the fact I was doing it.”

“It’s free, it’s self-paced in the sense that you don’t need to dedicate 6 hours a day to doing the course, or you don’t have to take a huge amount of employer or employee time to go off and do a short course.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“The certificates are valuable in the sense that it is validating my learning. On my resume state I state who is hosting the MOOC. Even though it doesn’t have the university credential behind it, however it’s valuable to have the employers know that the content is through a reputable educator.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“Through an online ad I think.”

5) Why did you enrol in this particular MOOC?

“The field I’m trying to get into is project management. I’m also doing a Cert IV in project management from TAFE as well, and lot of the information it was referring to was BA. So I thought maybe an introduction to BA would be a good thing to help me achieve my goal as a project manager. To have an understanding of what a BA does.”

“At this stage I’m not seeking employment in the BA or project management fields. I didn’t have huge success doing this without any qualifications. So I’m working on getting some learning first through MOOCs and additional courses and then will start looking for work again. It’s a tough job market in this field in Brisbane, so I’m trying to do everything I can to make myself stand out from the crowd.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “The field I’m trying to get into is project management.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?
“Learning about BA methods and gaining a certificate.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“What would stop me from completing this MOOC would be time pressures; however I’m quite focused on completing these studies. So I make all the time I can to complete these MOOCs.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“With MOOCs it’s a bit of a try before you buy. And I definitely see that where you’re looking at thousands of dollars to complete certificates and get credentials. You need to know that it’s something that’s going to be of interest to you. For me with a career change I’d really like to do project management or BA – but really what does that entail? Am I going to spend a couple of grand and then turn around and go ‘no that’s not for me, and now I’m out of pocket. But for me a MOOC can give me a taste and then I can ‘Alright that is a pathway I want to take’.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“I went the route of the MOOC to complement my work experience. I’ve got a lot of on-the-job experience which I’m trying to bolster through a MOOC. So it’s more practical in the sense that it’s not a three year course and at the end of doing your university study you’ve only learnt knowledge from a textbook or from a lecturer. Whereas I’ve got workplace experience and I just need to bolster it up with some methodologies. And MOOCs seem to – particularly this one – get straight into the crux and I can apply the learning to that experience that I’ve got already.”

11) Would you consider university enrolment in the future? Why or why not?

“If you’re looking at the connection between university and the MOOC itself. I guess I’d look at the content and think, well, it is entry level. A MOOC wouldn’t give me an impression to what real university life would be.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I know that they are a reputable educator.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“University is something, I guess, that I would consider. It’s definitely something I am thinking about. Through the association with the MOOC – in this case, with Charles Sturt – yes, that would be something I would consider.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

“Just at this stage it’s not something I would do in the next year. It would be something I’d be looking at in possibly 2 years. But again it just depends on my life experiences. Once I do these MOOCs if I apply for jobs and find I need to get a degree then yes I would look at the institutions I’ve done MOOCs through – not just Charles Sturt.”
P4, Male, 31-35

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I did an undergraduate degree in marketing with the Uni of Newcastle.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I have not done any previous MOOCs – this is my first.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“Well in this case it is about formalising what I am already doing, so I want to have that recognised in some way.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“It was via a colleague of mine who was on your mailing list. He just sent me the email and I said, ‘yep, sign me up.’”

5) Why did you enrol in this particular MOOC?

“It’s close to the work function I’m doing now. I did an undergraduate degree in marketing a few years ago. But my work functions are much closer to business analysis. There’s a need to really formalise the work I’ve been doing - because while internally people know what I do, externally it’s hard to convey that.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “It’s close to the work function I’m doing now.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“I guess completing the MOOC and getting a certificate.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“My wife’s just about to have our first child. In my work we’re also vastly understaffed – so it’s hard for me to get time for my own personal development.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“This is about furthering my development, which I will continue to do. I think if you’re proactively searching for your own professional development through any number of different ways, and making time for that, I think employees would see that as a sign of enthusiasm and motivation to further your development. I know I would as a manager – as someone that is responsible for hiring – I would look on that favourably. I’m also in a lucky position at the moment where my employer really values professional development.”
10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“I just don’t have the time at this stage to undertake a university course.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q9: “I just don’t have the time at this stage to undertake a university course.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I know Charles Sturt is an institution which offers online degrees that are really flexible.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“I’m just not ready yet to enrol at university, although I have a good opinion of Charles Sturt.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q9: “I just don’t have the time at this stage to undertake a university course.”
P5, Female, 31-35

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I did a trainee ship for a year, so I do have a certificate 3 in Business Administration.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’ve never heard the term MOOC before. This is the first short course I’ve come across.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I’m definitely focused mostly on the curiosity side of things, because this has nothing to do with my current job. Going into this field would almost require me to get a new job. So definitely curiosity and personal development.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I was directed, actually by a colleague of mine came across it, and said this should be something you should look into.”

5) Why did you enrol in this particular MOOC?

“I am coming to that point in my career, and I’m not sure if I want to continue doing what I’m doing or something else. My colleague said well what do you like doing. And I explained it to him and he said ‘Well that’s business analyst’. The next day, my colleague then told me about this course, where I could look at what a business analyst does...I saw that it was 4 weeks with the 5th week being an exam, and I thought, well 5 weeks isn’t a lot of time to dedicate so to speak but it’s enough time to learn what a business analyst does to see if I enjoy it and go from there. So if I enjoy it as much as I am now at the start of the course, then that will encourage me to go to Uni and study more.”

6) Is the topic content of this MOOC related to your current employment?

“It’s not related to my current employment. It’s testing out where I want to go in the future.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“How much over the short couple of weeks I enjoy learning and studying in this type of field because it is all quite new to me.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“From the outset, nothing really I can think of. The only thing – it’s probably a little late for myself. 7 o’clock is almost wind down time. That is the only con; but I think it’s great that if I miss the webinar, the next day it’s up on YouTube.”
9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

See response to Q1: “5 weeks isn’t a lot of time to dedicate so to speak but it’s enough time to learn what a business analyst does to see if I enjoy it and go from there”. So if I enjoy it as much as I am now at the start of the course, then that will encourage me to go to Uni and study more.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“The biggest bonus of the current course is that it’s free. But if this didn’t come along I definitely would have looked if there was a one day sort of course… I know they do that with Six Sigma, because I was looking at that. I know that some universities do provide a one day course, it does come with a fee but at least you can go along and get a taster for it before you commit to doing long term study.

“I certainly don’t want to get into a 3 year course and feel ‘Ok I’m going to complete it because I’m committed to it but I’m not going to give 100% because I’m not interested in it.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q10: “you can go along and get a taster for it before you commit to doing long term study.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“This is the first time I’ve heard of this university. If I like the MOOC, afterwards I will go on to Google it and do more research on it”.

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Every university has their own sales pitch, but being introduced through a MOOC – I’m sure it’s a reflection of how they run most of their courses. So just having that introduction not only to the course but to the university itself should be good. So I would definitely consider this university first before looking further outside.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

“At the end of it…the exam piece is really good, it’s a really good indicator. I will probably be the final indicator for me – should I commit to going and doing study depending on how well I do in that.”
P6, Male, 61+

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I’ve done two Masters’ degrees with CSU – MBA (Computing) and MMIT. I’ve been in an education space that’s looking at the interface between business and IT with a view to consolidating my knowledge all the way across there and possibly doing a PhD on that topic, and the BA thing has been fairly difficult. Since about 2007, there’s been people advertising Business Analysis courses including CSU. I have registered for them interminably, and they’ve all been cancelled due to lack of interest.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“We (ANU) ran a MOOC in astrophysics last year.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I’m motivated more by curiosity; I usually throw the qualifications away. My aim when I hit course content is basically to do absolutely everything that’s available. I basically try to get into everything in every detail. The strategy I’m following with the MBAs is to actually do three of them at 5 year intervals.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“An email from a training service provider called GCI.”

5) Why did you enrol in this particular MOOC?

“The assumption was that I would do something at the Masters level on Business Analysis. And what I actually did was I gave a number of training service providers to leave me on their mailing lists – so if anything came up in that space I could just grab it. It was a personal decision – I’ve been playing tag with this for years. It’s not a full BA course but it fits into a gap in my schedule – we’ll do it.”

6) Is the topic content of this MOOC related to your current employment?

“Not directly, no.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“The amount of reading that I was forced to do. I’ve got all of the textbooks on this already – as a result of my history – so it’s just forcing me to go through the reading at the pace of the course. My general approach to the MBA was that I would generally read about 100 papers per assignment. There is just a small amount of information in everything and you’ve just got to find it.”

“There’s reading lists in each of the assignments – and those reading lists are one of the really valuable things because obviously someone has figured out that those one’s are useful, rather than having to sit in the library and go through one book at a time. You know if you’re reading the Journal of Strategic Management or something you read an awful lot of issues before you find what you’re looking for.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?
“The only thing that can derail me is if this political campaign that I’m currently working on gets out of control. But it’s basically fitted into a 5 week slot that I’m expecting to be fairly quiet.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“The certificate is – I’m not really taken with it either way. I’ve got a boxful of pieces of paper from training courses I’ve done. As far as I’m concerned that’s all it is – a piece of paper. The actual knowledge and learning process is the important thing – the rest of it is just fluff.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“Where? I’ve been struggling to find one on this topic – otherwise I would have.”

11) Would you consider university enrolment in the future? Why or why not?

“Yes in this area – also in corporate finance and quantum physics and a couple of other areas.”

12) Can you tell me what you know about the university that is hosting this MOOC?

See response to Q1: “I’ve done two Masters’ degrees with CSU....”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Enrolment with CSU would be considered. It would basically be a timing issue again – as in a Master’s degree is a lot of time commitment.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q13: “...It would basically be a timing issue again – as in a Masters’ degree is a lot of time commitment.”
1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I got a bachelor degree after leaving school – honours in medical science. I’m currently in the midst of finishing a masters, with Swinburne through Open Universities – a Masters in Technology with a major in business systems. My mind’s always been active…I think I’ve only ever had 2 years in total out of education. I also did stuff at TAFE – a diploma and advanced diploma in different fields.”

“I’ve been really impressed [with Open Universities]. When I first started with online I went and saw my local library and thought I was going to struggle with things because they don’t really cater for what I need. But just the facilities that have been available online through the library is beyond my expectations.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“Never heard of the term MOOC before, sorry.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I’ve made a lifestyle decision based on where I live (Hobart) and that limits my career progression quite significantly. So to me it’s more about keeping across things, best practice, learning, being the best at what you do.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“Not sure, I think it was an email from GCI.”

5) Why did you enrol in this particular MOOC?

“I’m a solution architect at the moment, so I’m more in the design part of technology. From where I work, the biggest shortfall is this BA part. Often we’ll get requirements and they’ve just been knocked up by somebody in the business. So it’s just filling a gap…so it gives me the knowledge to push back at them to say this is not specific enough, or that’s not really achievable…so I can start using terms and phrases and best practice to try to help them improve things.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “I’m a solution architect at the moment, so I’m more in the design part of technology. From where I work, the biggest shortfall is this BA part. Often we’ll get requirements and they’ve just been knocked up by somebody in the business. So it’s just filling a gap.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“Well I’d obviously like to recall it! Make sure it sticks and I remember it. I mean, so far it’s good – it’s working. If I’m going to sit the exam I’d like to come out of it and get something as well. For me, I want to sit the exam and get something out of it.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?
“I don’t foresee any issues here. I think I am on top of things.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“My reason in terms of the final certificate is just to say that I’ve sat it and I’ve done it. Is it going to make much of a difference to my career? Probably not. But I think it’s important that people know that you did it. So for me doing it without sitting the exam defeats the purpose of it. You really want to make sure you’ve covered it well and understood it; and if you didn’t, then you get the feedback that it’s not where I’m best suited. So important, yes; but I wouldn’t think it’s going to set me up in something for BA.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“I never looked for a university subject on this topic. The attraction for this one was that it was run by Charles Sturt and I knew about this university. The fact that it was free was also a huge incentive. A short uni course or even a short course within your industry is going to cost you 2 grand at least.”

11) Would you consider university enrolment in the future? Why or why not?

“Yes and if I have a really engaging MOOC experience, it would influence my decision to study in future with [this university]. At the end of my current masters I’m looking to do another course and I believe Charles Sturt offers something in this area...so there is an underlying reason why I did this MOOC – to learn more about the delivery and what the university is like. These were the overriding factors in enrolling – here’s a course that interests me, it is short – fits the time frame – it’s free and it’s with Charles Sturt, which is someone I’m looking at.”

“You’re testing the university’s attitudes towards students, their ability to deliver online content to someone who isn’t anywhere near the university. I think these are important things to trial. And it’s free, so there’s nothing to lose.”

12) Can you tell me what you know about the university that is hosting this MOOC?

See responses to Q10 and Q11: Knows about the Charles Sturt and some of the courses offered.

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

See response to Q11: “At the end of my current masters I’m looking to do another course and I believe Charles Sturt offers something in this area.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q11: “if I have a really engaging MOOC experience, yes it would influence my decision to study in future with [this university].”
1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“Following high school I went to University of New England, out in Armidale and completed a bachelor of commerce, majoring in marketing and HR.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’ve did a 6 week short course through UQ earlier this year.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“Predominantly just curiosity for me, and wanting to be able to achieve a clear understanding of what I’m doing at the moment, and if I’m doing it using the best method possible.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“It actually came out as an announcement. Our HR department is quite good with keeping up to date with universities who are offering short courses and this one was of interest to me.”

5) Why did you enrol in this particular MOOC?

“I’m currently working in an administrative role within Queensland government so it does tie in with my current duties and also future duties hopefully. This is the second [MOOC] I’ve done.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “I’m currently working in an administrative role within Queensland government so it does tie in with my current duties and also future duties hopefully.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“Furthering my knowledge to current mechanisms.”

“[Networking] wasn’t the priority for me. I am in quite a large department so have networking capabilities here and throughout Brisbane.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“I can easily fit it in against current working commitments.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.
"I actively seek to expand knowledge. So whether it be internal training on new systems or external ones to continue my commerce side of things. I’m open to continuing my education."

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

"This course came through as an option so I took it up without really considering university."

11) Would you consider university enrolment in the future? Why or why not?

See response to Q9: “I actively seek to expand knowledge. So whether it be internal training on new systems or external ones to continue my commerce side of things. I’m open to continuing my education."

12) Can you tell me what you know about the university that is hosting this MOOC?

“My brother actually studied at CSU – he lived on campus at Bathurst….I was happy when this MOOC was through CSU because he had a great experience there."

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Definitely. I think some of the attractive points are that CSU is a major university, the same as when I studied with UQ and UNE. I’d rather go with a stalwart as opposed to an up-and-comer and be sceptical over their ability to provide support and/or quality education."

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q9: “I am open to continuing my education.”
P9, Female, 36-40

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I started studying quite late, when I was 24. I’ve done a Diploma in Management. I then went on to do a Bachelor of Business in Management (Accounting) with Charles Sturt. And I’ve done short courses in Project Management and using various reporting tools.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“This is the first MOOC I have done.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“The main reason is that it’s the type of work I want to go back and do. I’ve been off for 7 years, raising a family and completing my other degree. Business analysis is what I think I have a passion for and I guess I’ve got the right skill sets to do. I’m a bit unsure of whether I am right for the space and I thought doing a short course would just give me an overview of what it’s about so I can go ‘yes, that’s for me’ or ‘no, it’s not’ and pursue a different direction.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“It was through an email that my partner received.”

5) Why did you enrol in this particular MOOC?

See response to Q3: “The main reason is that it’s the type of work I want to go back and do.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “it’s the type of work I want to go back and do. I’ve been off for 7 years, raising a family and completing my other degree.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“Getting the certificate at the end will prove that I’ve acquired the knowledge. Then I guess it’ll be put to the test when I actually go to find a job. I believe I have a grasp on this so, to date, the stuff they’ve been talking about, that’s just common sense. More of what I was wanting to get out of it was how to document the requirements. Because as much as I know what’s going on and how to talk to people, it’s about that document side to me that will be very beneficial, and understand that I can go off and document requirements in the real world.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“Maybe family commitments but I’m really focused on doing this.”
9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“I will investigate what is next, actually, because I went through the IIBA stuff and how to get certified as a practicing business analyst, and that’s actually quite challenging given that I’ve had so much time off, in terms of getting the experience required to get that certification and also to do the exam to obtain the certification at the end. I was looking at a way that gives me a sound knowledge base to go to employers to say ‘I can do this’; and then, if I’m enjoying it, I would look at what else is out there. But to date there hasn’t been that much – in terms of study for business analysis – as it is a new kind of emerging field.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“It comes down to awareness – so was I aware that there was something else available at the time? This kind of fell into my lap because my partner started the IT Masters course and he got the email and he said ‘Look they’re doing a BA short course’. And I said, that way I could test my knowledge to see what I know and what I don’t know. So it kind of just came my way. Two weeks ago I was looking at the IIBA stuff, trying to figure out how I can get my way on that path.”

11) Would you consider university enrolment in the future? Why or why not?

“I probably would. I’ve only just finished my last one in November but I wouldn’t dismiss it.”

12) Can you tell me what you know about the university that is hosting this MOOC?

See response to Q1: “I [did] a Bachelor of Business in Management (Accounting) with Charles Sturt.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Absolutely if [the MOOC] is very engaging. And I highly recommend Charles Sturt because I did all my university study there via distance. They seem very well organised and understand what distance learning or online learning is about.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q13: “Absolutely if [the MOOC] is very engaging.”
P10, Male, 36-40

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a Bachelor’s degree in Electrical Engineering and have done multiple MOOCs, including with John Hopkins University on data analysis through Coursera.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I like the motivational aspects of MOOCs where work is required by a given date to keep up. I also like their vocational and targeted nature. I also think they can give you an employment advantage, since many employers will be looking for what type of personal development you’ve done.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“Both credentialing and learning specific skills are important.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I can’t recall exactly – either a mailing list or through a website.”

5) Why did you enrol in this particular MOOC?

“I’m currently unemployed but looking at this MOOC as a way of both getting credentialed as well as honing skills to look for self-employment opportunities.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “I’m currently unemployed.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“From the level of knowledge and expertise gained. Also, I am looking at the types of skills that employers are seeking in a business analyst. Another sign of success would be if the current MOOC relates to those skills, even if it only introduces them.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“I have plenty of time on my hands at the moment so it shouldn’t be a problem.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“It’s great that the MOOC has a pathway into an industry certification on business analysis. Such pathways are attractive, particularly to employers.”
10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“At the present time, a MOOC represents a more cost-effective pathway to my goals than university study.”

11) Would you consider university enrolment in the future? Why or why not?

“Only if the current circumstances change. I want to see where this MOOC (and related MOOCs) can take me first.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“A distance education, online university – otherwise, I was not fully aware of it. The link between the MOOC and the university was not very prominent.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Not at this point; but if I could see the cost-benefit in enrolling at this institution, then I would certainly consider it.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q11: “Only if the current circumstances change. I want to see where this MOOC (and related MOOCs) can take me first.”
P11, Male, 51-55

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I've done a few short courses over the years, which led me to undertaking my [CSU] Masters, which I've just finished”.

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I did [a MOOC] with NYU in the United States. I did an applied finance course with a very famous professor there. They were doing free web-based lectures, so I did it. There were face to face lectures that were published – no assignments or anything.” The driver to enrol was the reputation of the professor:

“He’s written many books and he was recommended by someone. So yes his reputation was the main reason for enrolling. It motivated me a little with respect to learning about finance; and I really enjoyed my finance subject in my MBA because of the experience I think. But the free course was pre-MBA – however, it gave me the inspiration to do more study.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“Certification is not that valuable to me personally. But I could see it would be useful for younger people beginning their career. I think it would be useful to people in that career path, but I’m on a different path looking at board roles etc.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I’m on the IT Masters mailing list.”

5) Why did you enrol in this particular MOOC?

“I work in the IT industry but not in the BA profession. It’s one of the major professions in the industry, along with project management. So it’s an area that I wanted to learn more about, mainly to relate to the people who do those roles.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “I work in the IT industry but not in the BA profession.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“Learning more about BA.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“The potential issue that I have is that …there’s just been issues at work – travel, and just too busy. So I don’t think I will continue with [the course].”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of
completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“[A MOOC is] short, sharp and gives you a chance to find out whether you like it or not without a massive two or three year commitment. So I think it’s a great way to test and learn – and either continue on the same study pathway or move to something else.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“I made a conscious decision when I finished my university course last semester to have a break, because I’ve achieved my goals. But with the MOOC, I thought I’d do it just keep the brain active.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q10: “I made a conscious decision when I finished my university course last semester to have a break, because I’ve achieved my goals.”

12) Can you tell me what you know about the university that is hosting this MOOC?

CSU Alumni

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“[If] I enjoyed the format and the tools that were being used, the interface used online. If you get used to that, it makes sense to stay with it. So if the experience was good I would typically stay with that university.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q10: “I made a conscious decision when I finished my university course last semester to have a break, because I’ve achieved my goals.”
1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a Bachelors, a Masters and a Doctorate.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’ve done several [short courses] of a technical nature as well as on leadership and management through various organisations I’ve worked for. I’ve also lead a number of webinars and other courses in my role as management and process re-engineering consultant and specialist. These courses were both internal and open. Previously I’ve done the Certified Technical Trainer. I’ve done now about 3 or 4 courses with IT Masters.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“For me it is more about understanding and keeping my mind active.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I was on the mailing list. I done other short courses through this provider, which I had enjoyed.”

5) Why did you enrol in this particular MOOC?

“Because often in my role I have a team of BAs working for me, I wanted to understand from a theoretical and teaching point of view what is the role and expectation. And the second reason is that I’m a strong supporter of continuing education to keep your mind active.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “often in my role I have a team of BAs working for me, I wanted to understand from a theoretical and teaching point of view what is the role and expectation.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“An understanding about the newest trends in the area.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“I expect to finish the course. I don’t think there is much chance of me not doing that.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“Ideally what I would like to do is to go back into a Masters of IT Management but my biggest restriction at the moment is a lack of funds.”
10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“This course was more convenient for me. As long as I’ve got computer access, it doesn’t matter where I am in the world – I can dial in at the appropriate time and be part of the course. So it’s very flexible and pragmatic. I don’t have to be on a campus.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q9: “what I would like to do is to go back into a Masters of IT Management.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I’ve done several MOOCs through Charles Sturt and had a good experience.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Definitely. And I think also the fact that Charles Sturt is a regional provider is also an advantage. I would definitely look at my personal experience, and so far, I would put that at a minimum of a 7 or an 8 depending on which [MOOC] course I’ve been doing. And then I would also look at the reputation of the school itself. At the moment, one area of interest is in IT and Charles Sturt obviously has a high reputation in that area. Typically I try to get good value for money with a reputable and recognised organisation.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q11: “Ideally what I would like to do is to go back into a Masters of IT Management but my biggest restriction at the moment is a lack of funds.”
P13, Male, 51-55

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a BSc in Electronic Engineering and a Master in Business Administration – both from overseas universities whilst I was living overseas.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’ve done an a WHS course via another institution in Australia and I’ve done a Project Management course as well by another institution, I think it’s CMO. But nothing much in the way of a university style course.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“It’s probably more curiosity but I also want to formalise my current knowledge.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I’ve been getting mail outs from you guys I think.”

5) Why did you enrol in this particular MOOC?

“I’m pretty much working as a business analyst anyway – it’s a large part of my work. But I don’t have the qualification. To say that I’m a business analyst – so I thought well let’s do the course so see if it is what I think it is – a business analyst is what I think it is – so it’s really about trying to get a definition of what a business analyst is; that’s probably my primary reason. Secondly, is to find out whether I like doing it formally. And thirdly is try and get some sort of qualification so I if someone asks me ‘What do you do’ I can say, ‘I’m more than a project manager, I’m a business analyst.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5: “I’m pretty much working as a business analyst anyway – it’s a large part of my work.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“One, I need to understand what the business analyst is about. So if I emerge with that understanding, that’s certainly one of the criteria that I would have. Secondly, am I still capable of handling this sort of work amongst my other workload? And basically, mentally still up to it – that’s the other issue.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“It’s potentially going to be time. I was probably over the top in my first assessment – but I specifically wanted to test myself – was I going to have the time, was I going to do a professional job.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.
“Very, very interested [in getting an industry certificate]. I want to see how I enjoy it, how I go with it. I haven’t really studied at a university level for a while and your mind gets rusty, so I just wanted to see if I can get through it OK. So it’s also testing the waters to see if I want to get back into the academic style learning again.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“Signing up to university is a very big commitment and again, I am bloody busy at this stage. I wanted to see whether I liked it before I actually made that commitment. That’s probably one of the prime reasons, rather than going to university. The other one is cost as well. So it’s just to find out whether I liked it or not, I didn’t have the time [for university] to go ahead and start with something and find out I didn’t like it; and obviously a third one is just cost.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q10: “Signing up to university is a very big commitment and again, I am bloody busy at this stage. I wanted to see whether I liked it before I actually made that commitment

12) Can you tell me what you know about the university that is hosting this MOOC?

“I know very, very little. In fact, I’m still wondering about the university. Where are you based?”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“[Possibly]. I do regard the university as having a good brand name – a reputable university, as such”.

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

“Quite easily. Probably the final decision there is going to come down to price and a bit of market testing as well. And probably another reason I looked at this – I am seeing a lot of positions opening up for business analysts; and because I have no formal training I’m not specifically applying for them. So it would depend on the market – which I think is there – for the sort of qualified person; and it would obviously depend on the cost as well. Am I going to get a return on my investment?”
P14, Male, 36-40

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“Through Melbourne University I did a combined degree of Forest Science and Science. Since then I’ve undertaken a number of short professional development courses through my work through a number of universities and professional development organisations.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I did a MOOC through Charles Sturt in project management probably 6-12 months ago. I also use Udemy from time to time to do some sort of short course work.”

“I paid for the Udemy courses. It was somewhere between $10 and $40 for between 2 hours and 20 hours in content. So for example, I’ve been looking at getting the CAPM project management certification and there are dedicated courses that people run just to teach you to study for the exams. You can do that through some professional institutions through a 3 or 4 day course and it might cost you a few thousand dollars. And you can also do those things on Udemy for $35! But where there is a need for more interaction, you need to pay more money. I believe you get what you pay for even though it’s not a straight line graph all the time. Some people can deliver content more cost effectively than others even though the content is equivalent.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I’m driven both by curiosity as well as the credentialing.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I was on a mailing list and received an email.”

5) Why did you enrol in this particular MOOC?

“I’m at a point in my career when I’m keen to do some more professional development and I guess the world is changing very rapidly around that. A lot of the work I do involves both project management and business analysis.”

6) Is the topic content of this MOOC related to your current employment?

“In my job I’m a project coordinator at the moment. I’m doing a lot of business analysis stuff so the course neatly fits with some of the areas I’m trying to develop some skills in.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“I want the certificate but also the substance behind it. I want to be able to put the certification on my resume but I also want to talk the talk and apply the processes and techniques that come from it.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.? 
“I have several young children so I like the flexibility in learning.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“I want any study to be beneficial to me with the time that I invest...I think the MOOC certificate is nice to have – but it won’t necessarily demonstrate a lot. They are not recognised very widely. But as you know the world around the format of education is changing and so, who knows, in 5 years’ time an employer’s perception of value around this might change.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“There’s some schools of thought around which claim it’s very important to have a particular certification which you might gain through a particular organisation or universities. My experience however is that the experience you get from those providers is not significantly better than what I would get from some of the online stuff. So for example with Udemy, I’ve done short courses on there before and often the lecturers you get are as good as what you get at university but they can offer quite cost-effective pricing. It’s all about economies of scale because of the number of people involved. But, on the other hand, you don’t quite get the interaction you would from some of the more costly courses. So I’m still trying to work out the best way forward for my own professional development.”

11) Would you consider university enrolment in the future? Why or why not?

“It’s a possibility. I’m still sitting on the fence a bit about whether or not MOOCs are the best way for me to progress my professional development.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I’ve done previous MOOCs through CSU. The project management MOOC I did I was a little bit disappointed in. There was a lot of material and you could feel the lecturer was under a lot or pressure to get through a lot of stuff in a short time.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“I’m at the point where I’m wanting to invest in something substantial and I’m trying to work out what that is. Can CSU be that provider? So I guess it’s a test of what CSU’s education service is like.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

“I’m just not sure yet whether MOOCs or university or some other option is the best way forward for me.”
P15, Male, 31-35

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I attended Ultimo TAFE and did a Diploma in Information Technology, focusing on network engineering. I completed the Diploma at the end of 2003 and found a job early 2004. I [also] recently completed a Prince2 practitioner exam and passed that.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I have enrolled in some of the MOOC courses through edX. I hadn’t really committed to the same degree as this one – but then again, I was working and it wasn’t something IT related. I’m not a stranger to distance education or that I’m apprehensive about – but I am wary that in the eyes of society, they could hold that traditional mindset and there could be some resistance there. But I’m not discounting this IT Masters pathway.”

“Perhaps in the next 5-10 years MOOCs will become the default. The more common way in which education is delivered to the world – just to meet the demand. Until that time, there are still a lot of people in management positions that hold that traditional mindset where they believe you can’t substitute the on-campus experience.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I may have grown somewhat complacent at my last role – I felt no urgency to refresh my qualifications, which is why I’m doing this course. Some of me regrets that. A lot of that was not being as informed as I might have been.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I was doing some research on my various university options and looking at Charles Sturt as one of them. There must have been an ad or a link to IT Masters free short courses.”

5) Why did you enrol in this particular MOOC?

“I’m doing the MOOC because I now want to change my focus to something more in the Project Management or Business Analyst disciplines. And the fact that it’s free didn’t hurt. It’s also a short course, which is great.”

6) Is the topic content of this MOOC related to your current employment?

“Currently I’m unemployed. I left my previous job in February this year for personal reasons. I wanted to do a bit of travel and reassess where I was going.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“There’s not any one thing – it would just be the [overall] experience.”
8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“Nothing I can think of.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“I’m committed to attaining some sort of degree. Probably not a bachelors, which are more designed for career starters.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“With IT Masters and CSU, you have a lot of videos [on the site]. One of them was about a return on investment for a university degree. The way it was produced and presented, it made a lot of sense. If I’d seen [the session on ROI for a university degree] several years ago, I would probably have finished a degree by now.”

11) Would you consider university enrolment in the future? Why or why not?

“Yes it’s a definite possibility.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I use to work with someone who was studying with Charles Sturt.”

Also see response to Q4: “I think I was doing some research on my various university options, and looking at Charles Sturt as one of them. There must have been an ad or a link to IT Masters free short courses.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“If I do end up signing on with IT Masters and Charles Sturt, and I end up completing the Masters’ degree, then I think my biggest concern is that it would be recognised enough at a level that I could compete with graduates from other, more renowned universities – Sydney University, UNSW, even UTS….I’m considering [Charles Sturt] but I’m in two minds about it.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q9: “I’m committed to attaining some sort of degree.”
P16, Female, 41-45

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I’m an educator myself, or that’s my background – I’m currently working in Project Management. So continual learning is an important thing for me.”

“I did dual quals. I started with doing the Diploma Project Management and Diploma of Management. And from there the natural progression was to do the Advanced Diploma of Management and the Advanced Diploma of Management, HR. And then the Federation University have a Bachelor of Applied Management which allows the Diploma and Advanced Diploma to be pathways into the Bachelor.”

“When I first started with TAFE [current employment] I picked up a few free courses here and there – which were obviously MOOCs – and did things here and there – and then decided – my role at the time involved managing some projects so I thought I need to learn this side, that’s why I did the Diploma of Project Management.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’ve had a mix of both [positive and negative experiences]. In a previous role I was the manager of online learning for a job network organisation and there programs – they liked to call them MOOCs but they weren’t; they were just really bad online learning. I’ve just picked up stuff here and there – and I’ve done stuff that’s been really awful. I think it comes down to the quality of the people developing and delivering it. And in some cases, perhaps the amount of money they’ve had to develop it. So I’ve had some poor experiences that really did put me off. And I was deadest against the whole idea of online learning. But more recently I’ve done some really good ones.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“For me it is mostly about curiosity and personal development.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I subscribe to the various places that offer MOOCs and get the monthly emails. And sometimes something will spark my interest.”

5) Why did you enrol in this particular MOOC?

“I’ve recently been seconded into our project management office here at GoTAFE. The project leader said ‘there’s a business analyst MOOC running and we all think it’s going to be really valuable in terms of what we do in project management – so here’s the details, enrol yourself.’”

“With personal development courses, I tend to look at what’s free. This is an introduction to business analysis – and there’s the opportunity there if there an interest to move into further education.”
6) Is the topic content of this MOOC related to your current employment?

“This MOOC is pertinent because my new role is all about information gathering and BA.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“Gaining skills that I can use.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“It’s much like reading a book; I’ve never not finished a book. If somebody has put the effort into putting a program in place to deliver it.... I sort of feel obliged to continue because I know the sort of work that goes into developing online learning and I sort of feel that ‘well I’ve started this, it might not be my thing but I feel obliged to somebody’s effort that they’ve put into this to continue to the very end’.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“This is an introduction to business analysis but there is the opportunity if the interest is there to move into further education. Being part of the TAFE system it’s all about pathways into further education so I’m always saying ‘where could I take that to learn more’.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

See response to Q9: “This is an introduction to business analysis but there is the opportunity if the interest is there to move into further education.”

11) Would you consider university enrolment in the future? Why or why not?

“Absolutely. This is a taster for a full qualification of sorts. There will probably be an opportunity to take up further study if it turns out to be something valuable for [the organisation]. The fact that I’m already studying doesn’t change the fact that I would pick up something else if I thought it would be valuable.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“It’s Charles Sturt? GoTAFE has a partnership with Charles Sturt...so I know a little bit about the university.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Yes, absolutely I would consider enrolment with [Charles Sturt] if I felt I could learn something valuable and the opportunity was there.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q11: “There will probably be an opportunity to take up further study if it turns out to be something valuable for [the organisation].”
P17, Male, 56-60

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a Bachelor of Mathematical Sciences from Adelaide University. I’ve got a Postgraduate Diploma in Project Management from University of New England, and I’ve got a Master of Business Administration from Charles Sturt Uni.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“This is the third MOOC I’ve done with CSU and IT Masters. I did a marketing and a digital forensics one last year.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I’m doing it both to satisfy curiosity as well as to get the credential. It’s not really a formal qualification but it gives you a bit of an oversight into the topic to see if it is worthwhile going further. But some of it’s just out of pure interest. Digital Forensics was just out of interest. The Business Analysis MOOC – I’ve been in the IT area for about 25 years and I have done quite a bit of business analysis so I thought I’d see how it’s covered in the short course.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I’m on the mailing list. I’ve been getting CSU emails since I did my degree.”

5) Why did you enrol in this particular MOOC?

“The most important thing is to get an overview of the formal business analysis function. Secondly, I would say out of general interest...and to get a brief overview. The benefit of it is that you can do it when you want. You don’t have to be there when it’s actually online. I find it easier to use the recordings.”

6) Is the topic content of this MOOC related to your current employment?

“I’m working in IT and business analysis goes hand in hand with IT. So it’s very much related to my current employment.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“I think seeing some of the new ideas that are coming out in the business analysis space.”

“I’m not looking to create any networks at this stage because I have enough formal networks through my current employment.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“Time and workload are major factors with me at the moment.”
9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“At this stage I’m not planning on doing any more in-depth formal study but if it really blows me away I probably would look at something more formal. I’d look at something by distance education because I find that format really useful. I might also look at the industry certification on Business Analysis, depending on what the workload is.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“[With a MOOC] There’s no money to pay upfront – it means I can get a taster for the type of study that needs to be done before outlaying a lot of money and finding out it wasn’t for me.”

“I think it will give a good introduction to the topic without going into a lot of detail, so I will know if it is something I do want to do in more detail and get something formal, like a Graduate Certificate.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q9: “At this stage I’m not planning on doing any more in-depth formal study but if it really blows me away I probably would look at something more formal.”

12) Can you tell me what you know about the university that is hosting this MOOC?

See response to Q1: “I’ve got a Master of Business Administration from Charles Sturt Uni.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“Yes I’ve studied with CSU before and would definitely consider them again.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q9: “At this stage I’m not planning on doing any more in-depth formal study but if it really blows me away I probably would look at something more formal.”
P18, Male, 31-35

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a Bachelor of Engineering from UWA in Perth.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“I’ve done a number of MOOCs. A few that come to mind – I’ve done an engineering unit with Old Dominion University in Virginia online. That wasn’t a short course, it was a unit (fee-paying) which if I had have continued would have led to a Masters.”

“I also did a subject through University of Tasmania, and that was free. It was called Foundations of Technology for Healthy Living. I was just interested in the topic and it was free.”

“[With MOOCs] you get the flexibility. And that’s great because you can fit it around your life. So that side of it is great. But I have a sense that I’m missing out on some of the collaborative aspects of study – you know, being in a room with other people.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“I’d say it probably a bit of both. The University of Tasmania one was just interesting – that is, it wasn’t of professional interest but personal interest but it gave me a feel of how I could squeeze in the time. But that’s the only one I’ve done purely for that reason. And the others that I’ve been looking at – giving that I’m looking at an MBA, I’m looking at [MOOCs] that align with that. I guess it’s a low cost way of testing out the content and actually seeing for sure if that’s what I want to do or not. Rather than signing up for an MBA - even if I only do 1 unit it might be a couple of grand investment. Then if I decide it’s not really for me, well there’s a bigger cost there to test it out.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I came across it on the web.”

5) Why did you enrol in this particular MOOC?

“I’m looking at starting an MBA in the near-ish future, and by doing some of these shorted courses I want to test myself out a bit to see how I go with the time commitment – studying again along with worth. And that’s why I’ve been doing a few courses just in the last 12 months.”

“I also signed up to one course through Coursera. That was a business strategy course. That lined up with the MBA I’m planning to do. So I thought I’d do that as a bit of a lead-in towards the MBA. That’s also the main reason I enrolled in the Business Analysis MOOC.”

6) Is the topic content of this MOOC related to your current employment?

“No not directly but it does line up with some of the content in many MBAs.”

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience,
etc.)?

See response to Q3: “I guess it’s a low cost way of testing out the content and actually seeing for sure if that’s what I want to do or not. Rather than signing up for an MBA - even if I only do 1 unit it might be a couple of grand investment. Then if I decide it’s not really for me, well there’s a bigger cost there to test it out.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“Time pressures would be the main thing.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“It is a possible stepping stone towards an MBA.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

See response to Q3: “I guess it’s a low cost way of testing out the content and actually seeing for sure if that’s what I want to do or not. Rather than signing up for an MBA - even if I only do 1 unit it might be a couple of grand investment. Then if I decide it’s not really for me, well there’s a bigger cost there to test it out.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q5: “I’m looking at starting an MBA in the near-ish future.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“Coming from Perth I don’t know a lot about them.”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“I’ve got a few options here [in Perth] where I can do it on campus, versus doing it online. I haven’t made a decision on that yet. I would say I’m leaning towards trying to do it on campus with a local university.

“But the quality of the online course does certainly give you a bit of a sense about the university involved. You get a sense of how well their online platforms are set up, and the obviously you get to sample the content, and hearing from one of the lectures. So without it being a focus, it does give you a real sense of – a bit of a window into the quality of the university.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

See response to Q5: “I’m looking at starting an MBA in the near-ish future.”
P19, Male, 56-60

1) Can you tell me about your previous educational experiences with university, other MOOCs, TAFE or Industry Certifications? Do you look for opportunities to pursue further education?

“I have a Bachelor’s degree in Engineering – that’s a couple of decades ago. I’m not engaged in any current tertiary education at this stage.”

2) I want to know more about your previous experiences with MOOCs. Can you recall the MOOCs you have done and briefly tell me what you did/did not like about them?

“This is the first MOOC I’ve done.”

3) I want to ask next about your overall approach to learning. When it comes to learning and education, would you say that you are motivated more by the urge to satisfy your curiosity or by the benefits that learning can bring such as improved employment opportunities?

“At this stage of my career I’m not particularly looking for another couple of initials after my name. It’s really about gaining that extra knowledge or having confidence that I’ve got that knowledge but didn’t know it. And perhaps having some tools to go about business analysis.”

4) Let’s turn now to the current MOOC. Where did you learn about it?

“I wasn’t aware of it until I stumbled across it somewhere. It must have been an email I got.”

5) Why did you enrol in this particular MOOC?

“In the course of my career around project management I’ve worked with a lot of BAs and I had an opportunity to do some BA work in a previous engagement. But I didn’t have the confidence that I had enough experience to do the job justice – so I didn’t take that job on, and stayed with project management. So I thought that now is a good opportunity to dip the toe in the water and find a little bit more about Business Analysis. And from that I can judge how much my experience in my career to date will be useful for a BA role.”

6) Is the topic content of this MOOC related to your current employment?

See response to Q5.

7) Under what circumstances would you consider your involvement in this MOOC to have been a success (for example, completing the MOOC, meeting new people, having an engaging learning experience, etc.)?

“Once I know a little bit more about [BA] I will understand whether what I’ve currently done is good preparation for a BA role. I might even do a split role involving project management and business analysis, which I suspect I’ve been doing anyway without realising it. The MOOC will help quantify it for me.”

8) What are some of the things that may stop you from completing this MOOC – for example, time pressure from family and work commitments, lack of familiarity with the topic area, etc.?

“If anything stops me it will be lack of time. But I’ve made a commitment to do this so hopefully that won’t burn the candle too much at both ends.”

9) Let’s talk about this MOOC in relation to the longer term goals that you have. What other goals do you think this MOOC will lead to? For example, you might see this course as leading to a certification of
completion, which might then encourage you to do another MOOC or perhaps an industry certification or even self-study on certain topics that interest you.

“I haven’t planned any further study goals at this stage.”

10) Another option to enrolling in this MOOC would have been to enrol in a university course that covers similar content. Did you consider this? Why or why not?

“The likelihood [of doing a university course] is quite low at the moment just because of my bandwidth. I’m pretty full-on doing 50 or 60 hours a week, and it would be hard to squeeze in further education beyond that in the evenings. So it’s probably unlikely but not impossible.”

11) Would you consider university enrolment in the future? Why or why not?

See response to Q10: “The likelihood [of doing a university course] is quite low at the moment just because of my bandwidth.”

12) Can you tell me what you know about the university that is hosting this MOOC?

“I know very little. Can you remind me which university it is again?”

13) If you were to enrol at university, would you consider enrolling in this one? Why or why not?

“At this stage I just don’t know enough about them to say.”

14) Can you imagine a MOOC experience that would prompt you to create a goal for university study? What would it be like?

“I guess it would be realising that there was great benefit in the work that I’m doing, and may potentially do in the future, that would give a lot of extra benefit to my opportunities. It’s more the knowledge though than the certification that I’m after – the knowledge and confidence that I’d be able to take on a BA role.”
Post-MOOC Interview Transcripts

P1, Male, 41-45

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was good. I’ve been a systems engineer for a long time so I’m very familiar with the solutions side of it but I hadn’t really given much thought to the problem side, and in particular things like thinking about stakeholders and trying to line them up. It was really good because I realised a lot of the things we do are in the domain of BAs, and there are much better ways to do them, or at least think about them.”

“I did the homework and I did a number of those tools. For instance, I’d never heard of the force-field analysis and that was interesting. I’d done a lot of those things – just sort of mentally thought about it – but never in a systematic fashion.”

“The content was very good. I particularly liked the pre-packaged lectures – the MP3s. I had difficulty with some of the video – but, you know, I think between the written materials and the MP3s that covered a lot of it. And obviously there was the homework too.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“Yes. [It advanced by knowledge of] both the role, different things I can do, and to seek out more specifics. The course itself was just an introduction so it’s just given me a sense of what’s out there.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I don’t think my approach to learning has changed at all, no.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I’ll seek out more details on the tools. As I said, professionally I’m a Systems Engineer. I know now some of the things I’m doing are sort of Business Analysis. I’m going to try to help those things. For instance – stakeholder alignment. We’re terrible at that and the processes we’ve set up are just really bad at that. But previously I hadn’t thought about it that way. I just thought about it that way – I just thought about it as ‘I give you a file, magic happens, the file comes back, magic happens. Rather than – maybe I need to, instead of giving it to their stakeholder, so that their hostile stakeholder distributes it to their other, unknown hostile stakeholders, and then we get negative feedback back. Maybe I need instead to ask if we can talk with their stakeholders directly. But before this course I hadn’t thought of it that way. It was just sort of input – output, and we’re getting negative results but I hadn’t really thought out the more human processes behind it.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the presentation session influence your view?

“The content seems very good. The lecturer had clearly been in that field for a while and he knew his stuff. So you’ve heard the statement ‘content is king’ – the content was good. Charles Sturt University seems to have experts on their side. And I think at the end of the day that is why somebody would come to your university. You know your stuff – you have good content, and you can teach it.”
“I remember seeing something about [the marketing session], and I don’t remember whether that was a presentation or an MP3, or both. And I sort of read it and thought ‘Hmm that’s interesting, and then continued with the course.”

6) Would you consider university enrolment in the future? Why or why not?

“I definitely want to do more MOOCs. As I said, at this stage a Masters just seems like a big commitment. I will do more courses. Once I finish the BA course – I just need to do the final – I’ll sign up for another MOOC. I’m looking at a number of MOOCs – at Coursera, I’ll see what Charles Sturt has as well. There’s also some other one’s out there. Right now I think the technology is still immature and a lot of people are doing things in different ways, so I think it’s worth exploring to see what’s best.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q6: “at this stage a Masters just seems like a big commitment.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q6: “at this stage a Masters just seems like a big commitment.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was really enjoyable, and quite manageable for the length of time that it was in. I learned a lot of things and I did finish it, yes.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“I’ve recently just had a development discussion with my supervisor at work and indicated that project management / BA is somewhere that I’d like to go. So I am seeking out formal training pathways for this.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I’m definitely interested in doing more MOOCS. I’ll keep my eye out for ones that pique my interest. I do intend to go back now and do the Project Management MOOC [also offered through IT Masters].”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I didn’t know anything about the university when I started. The webinars and all the content that was presented was very well organised – so I believe that the courses offered through the University would also be well arranged and organised. So the online experience was good – I never had any issues with access or anything like that.”

“I attended all but one of the live webinars. Having the recordings was useful, and an awesome study tool as well. The day of the live webinar, the lecturer would release four podcasts on the different topics that also had readings to go with them. I found this really useful to give you an idea before the live webinar because an hour seemed a pretty short amount of time to get through all the information.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the presentation session influence your view?

See response to Q4: “The webinars and all the content that was presented as very well organised – so I believe that the courses offered through the University would also be well arranged and organised.”

6) Would you consider university enrolment in the future? Why or why not?

“Definitely. At the moment I’m still just trying to figure out which path I’m going to take, as to what to study.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

“The MOOC was really well run so I would definitely consider Charles Sturt for future university study.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

N/A
P3, Male, 36-40

1) **Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?**

“All in all it was pretty good. There are a few changes I would probably recommend but otherwise, pretty good.”

“For this particular MOOC, a better description is needed than an Introductory Course in BA. When I was going through the content, it did have quite a bit of applied knowledge already expected. So for someone like myself not having any BA knowledge, I found it was heavy on some of the terminology if you didn’t really work in that industry.”

“I’d also probably look at the discussion forums. I just didn’t feel that they worked that well. If you have a look now, you can see how many unread forum posts there are. A lot of people were just posting just so they could get a tick in the box. I’m all for forums if they are active and working really well – but I think the fact that it was a prerequisite to post something to do the final test – that just encouraged people to fill it with rubbish, so the good stuff was lost.”

“Compared with Open2Study MOOCs I’d done, this one required a little bit more commitment, which I think was good. Especially since I didn’t have that prior BA knowledge, I had to sit down and really focus on it. Whereas with Open2Study – the MOOCs I’ve done are a bit more light-on for content. The Charles Sturt MOOC also had additional audio files and more-in depth content compared with Open2Study. So it was more challenging than the MOOCs I had done previously.”

“But it was challenging in a good way but I didn’t expect it. This combined with my workload and other commitments meant that I disconnected a little bit compared with other MOOCs where the content was easier. But a lot of that was to do with my workload at the moment. So I think I spread myself a little bit thin with this MOOC. In hindsight, I probably should have held off doing this one until I had a few less things on my plate.”

2) **In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?**

“I went through it all. I didn’t drop out. I did my final test. It was actually when I did my final test that I really found out that I didn’t give it the attention that I should have.”

3) **During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?**

“The homework is great. It’s a way of validating that I’m on the right page I guess. To see what I’m doing and my interpretation of the week’s course is on par to everybody else. On the flip side, it’s also good to say, no I didn’t get that right, I’ve missed understood something; so go back, have a look at the readings, listen to the weekly audio files and lectures that they post up and just re listen and go ‘Oh ok, I missed that point because of this...’”

4) **In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?**

“There’s further study coming my way. As we discussed previously, my aim is still to get a job in project management, utilising BA skills. That’s my end goal.”

“The more I interact and network with other people, I think study is definitely going to come. During the MOOC someone from Charles Sturt spoke about further study options, which I sat through and listened to.
What you were offering on the BA side of things just seemed a bit heavy on the IT perspective. Where I’m looking for more BA skills so that you can apply it to processes and procedures that don’t necessarily involve an IT system. So I was just a little bit unsure if the university course presented is the one that I want to do.”

“Currently I need to finish off a Cert IV. MOOC-wise, I will probably just taper off for a little while because I’m a bit overloaded. I’m also working on my public speaking skills at the moment.”

“I’ve got my eye on the prize, which is a project management job. I did a SWAT analysis on myself and identified key skills that I can build on as well as learning new skills. I’m just trying to mix it up a little bit, so I’m going to taper off the MOOCs and do a bit more people to people networking. Studying online can be quite isolating.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“The marketing session was definitely useful. As someone who isn’t sure on what study they should be pursuing – particularly because I’m just getting back into study – it was handy to get an explanation of what is out there, what the content is, what to expect – whether it’s full time or part time. So what is out there – at least for one institution? So I got value out of it.”

6) Would you consider university enrolment in the future? Why or why not?

“I had already decided that university study is something I should be considering. But it was good to do the MOOC to see the content that Charles Sturt offers. So now I have something to compare it to, with other institutions that I’ve had experienced with through Open2Study. As I touched on earlier, Charles Sturt’s content was a lot more thorough than what I’ve previously experienced. And that was generally a good thing.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

“I would look on Charles Sturt as a definite possibility because I’ve had that experience and I can say the content was good and challenging over other universities where I don’t have that connection. So I’ve already got that connection with Charles Sturt. I’ve already had a bit of a taste. I can see what they’re doing versus having to do more ‘tyre kicking’ with other universities.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

“It does put Charles Sturt above those other universities that I have locally because I’ve already got that connection. You can also put it down to being time poor. You don’t want to have to go through the chore of going from one university to another university and ask ‘what you offering, what’s the content?’ I’ve already got that overview of Charles Sturt. And if I did some quick research and found that other universities don’t seem to excel or offer anything better than Charles Sturt – then I would go with Charles Sturt because I’ve done MOOCs with them.”
P4, Male, 31-35

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I really enjoyed it. It was good because it made me realise there’s a rhyme and a reason to what I’m currently doing. A lot of stuff I’d just picked up along the way through observing different people. So it was good to formalise that.”

“I struggle with the webinars to be honest. I couldn’t get to the live version. But what I really enjoyed were the supplementary materials – you know, the 10-15 minute podcasts. They really helped. I also liked what was provided through the recommended lists. And I really liked the readings that came along with the course.”

“The only thing that would have helped me more if I was getting notifications if someone replied to a post, or replied to a comment because it was really hard to try and track your conversations through the postings.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“I thought it was really valuable to stimulate the brain. Instead of sitting down and watching TV after a hard day’s work you stimulate the brain doing something that you’re interested in. So it was really good.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“Yes it helped to formalise my knowledge, which is the main reason I undertook it.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“Looking through the whole course catalogue [of other MOOCs] there’s a few other ones in there that I’m going to look at.”

“I didn’t buy any of the books but I did really like what was provided in the reading list. And I really enjoyed the readings that came along with the course. I’ve been ridiculously busy so I haven’t had a chance to look further but recognising now that I’ve done that first step the need to continue to formalise my experience – that will be next on my list.”

“I’m not sure what’s next at this stage. For me, my next step is I think identifying where I can get the most value in the shortest amount of time. That’s for me the priority. So whether that’s on the job or whether that’s more short courses.”

“That’s what I really liked about the short course I did - that it was my own time. And while there wasn’t a financial investment, there was obviously an investment of my own time and interests, which made it really easy for me to be strict on logging in, looking at other people on the dashboard and what they were saying, and adding value to some of the things they were saying or questioning some of the things they were saying. That’s the toughest thing, I’m sure you’ve heard it a lot – being able to do it right, it’s just about time.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“I’ve always held Charles Sturt in pretty high regard because I know they do offer distance learning and online education and also offer really flexible approaches to postgraduate study – but also undergraduate.
I’m originally from the country, so being a country boy, the fact that it’s in a country area, I’ve always had a reasonable high regard for Charles Sturt.”

“No I didn’t see the marketing session.”

6) Would you consider university enrolment in the future? Why or why not?

“My interest in university has certainly been stimulated. It’s just like I said about investing that time to consider the options available. So is it a work-assisted or work-funded postgraduate study. I did start a postgraduate course a few years ago with QUT. I finished with the postgraduate certificate because at the time I wasn’t able to put in the required amount of time to really get the most value out of it. That was a postgraduate course in marketing communications. My career has really moved away from marketing so now I’m at a point where I know what I want to do – what I like to do – what I think I’m good at and what my bosses think I’m good at – so it’s really about how do I best attack this. Is it a postgrad? Do I need that to help me formalise stuff I’ve learned over the years. Or is it continued short courses in the interim to really formalise that base so I’m attractive to the next employer. So for me that’s what it comes down to – being attractive to the next employer.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

“I think so. If it ticked all the boxes – and I think the model is there in terms of flexibility – and subject matter and of course financially, then it certainly makes sense.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q7: “I think so. If it ticked all the boxes – and I think the model is there in terms of flexibility – and subject matter and of course financially, then it certainly makes sense.”
PS, Female, 33-35

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was incredible. At first I was wondering how it was going to work, in regards to webinars and videos. But because the homework assignments were done on the online forums – where you had to either put up your examples or comment on somebody else’s – it got me out of my comfort zone and interacting with different people. And you almost forget that you went to an hour course or listen to the lecture because you got all the knowledge anyway. And you will still interacting with all the other different students.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“I enjoyed every week of it. Especially the bit about the next steps for university. Because I was wondering where do I go from here? I also liked how, if you couldn’t make it to the live lecture, there was the video afterwards. And the forums were great. So it really just ticked all the boxes for me.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“The curiosity is, of course, still there but I think it’s now a little bit beyond that because I now want to get a degree in this area. It’s almost like I’ve found my little home and I’m happy to stick there.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I am considering university….yes absolutely.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“Charles Sturt University was very helpful and there’s a lot of material up on the website.”

Also see response to Q1: “I enjoyed every week of it. Especially the bit about the next steps for university. Because I was wondering where do I go from here?”

6) Would you consider university enrolment in the future? Why or why not?

“Yes absolutely. It’s mainly about keeping that curiosity and that learning going.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

“At the moment I’m just really looking at one university, which is Charles Sturt, because I did the free course through it. They were very helpful and there’s a lot of material up on the website – they were just very informative. So I’m sticking to there for now.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q7: “I’m just really looking at the one, which is Charles Sturt....”
P6, Male, 61+

1) **Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?**

   “Yes, I completed - I did everything.”

   “It took me a couple of weeks to come to grips with the format and webinars – but after that, I was OK. My funniest thing was that Brenton does all his reasoning in reverse. So in order to write out the argument he’s generating you basically have to play the recording backwards. Most of his reasoning goes from the detailed to the general root of the argument, in that order.”

2) **In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?**

   “Yes it certainly forced me to do quite a lot of reading – so yes, that criteria was met.”

   “The course was at the right level for what it was pitched at.”

   “[The lecturer] started off fairly chatty, and the interludes got a little bit irritating. I was little bit grumpy about that because it was consuming time. But it was not too bothersome – the whole things was done fairly well.”

   “The forums were way too big. It was very difficult to see any structure. There was just an awful lot of random sort of ‘me too’ answers, which were cluttering it up all over the place. So I think the forum needs a little bit more work. Given the scale you’re attempting, it may need some searching mechanisms.”

3) **During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?**

   “We handled a lot of the curiosity fairly well. It answered a lot of questions, generated a lot of ideas. Which is what was forcing me into all the reading I was trying to do.”

4) **In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?**

   “The big problem with Business Analysis was that the formal courses were just not being offered in Australia. I’ve been chasing them since about 2010. I certainly keep looking for other BA courses. I’m on the email lists of just about all the consulting companies in Australia, so I know when there courses come up.”

5) **Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?**

   “[I am a previous student of CSU]. I’ve got put myself through a whole business analysis course at some stage. The MOOC certainly through up some ideas that have been sitting in the back of my mind but until now didn’t click. So it helped explained things. So I definitely want to take things further, given the right course and time availability.”

6) **Would you consider university enrolment in the future? Why or why not?**

   “If a business analysis course came online at CSU it would certainly be considered.”
7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q6: “If a business analysis course came online at CSU it would certainly be considered.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

“It is quite likely. The initial attraction to CSU is not having to go to workshops.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was pretty intense but it was good. The exam was tight for time, I’ll tell you that.”

“I got heaps out of it. It was good. I got a lot out of it. I did alright in the exam.”

“In some of the lectures where you tried to squeeze some information before or after the session, it felt for me like it was maybe impinging a little bit on Brenton’s content, so that he felt a bit pressured to get through it a little bit earlier to try and wrap it up. Whereas my primary focus was getting the content – not so much about the ancillary stuff. I don’t know but I just felt this from his haste to try and get on with it and push forward a bit.”

“The other thing was when I was listening to the recording – maybe it would be good to sometimes limit the questions to maybe 5. If you take too many questions it affects everybody – but at the same time there’s probably a lot of questions. I don’t know if there’s a way to aggregate questions together, maybe on keywords, so you could say that we’ve had 25 people ask a question on this keyword so will prioritise those. So if you can get some metadata in there to search for the key questions, and even let the students see that the most popular questions are so-and-so, they could see that it’s being covered and wait for it. And then target, say, the top 5 questions.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“It’s probably the end of the line in terms of business analysis study. I was certainly looking at the marketing content you offered to see what the other possible options were, and where they could lead.”

“I certainly want to do more MOOCs. I’ll see what’s coming up. I’ll just look and see what interests me – perhaps something in the project management space.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I still want to just keep learning topics I have an interest in.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

See response to Q2: “I certainly want to do more MOOCs. I’ll see what’s coming up. I’ll just look and see what interests me – perhaps something in the project management space.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“For me the experience met my expectations. It was pretty consistent with the university study I’m doing with Swinburne through Open Universities. I was obviously using them as the benchmark.”

“I thought the marketing session was fine. Pretty hard to cover the content in the timeframe. There’s a lot there. And I also went back and watch some additional videos about your courses.”

6) Would you consider university enrolment in the future? Why or why not?
“Yes, I’ve already had a look on the [Charles Sturt University] website. I’m probably not ready right now. I’m thinking about it. Another thing I heard on triple J that you guys did alright on a recent survey.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q6: “I’ve already had a look on the [Charles Sturt University] website. I’m probably not ready right now. I’m thinking about it.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q6: “I’ve already had a look on the [Charles Sturt University] website. I’m probably not ready right now. I’m thinking about it.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I couldn’t attend the lectures live so I watched them the next morning. I found that a good thing – you weren’t restricted as to when you could do it. It did mean though that you were limited in being able to ask lecturers questions – because they only answered them live during the training, as opposed to after the fact.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“It was very good. “I liked the online forums although there were different from what I’d experienced before as an internal student. It was a good way to do it, and to talk and interact with people remotely, including those from overseas.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“They remain the same. Still curious about things, which is my main motivator for learning.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“The marketing session was good. Studying a Masters is something I’ve always wanted to do. It’s just now about getting motivated and actioning it.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“I did my previous study through UNE. I probably want to choose a university that I have a bit knowledge about, so that I’m comfortable with it.”

“I just don’t know whether to take the six months off and prep to doing a Masters and commence the [business analysis] certificate, or do some type of interim course. The hours I’m working at the moment will make it difficult to fit in full time study.”

6) Would you consider university enrolment in the future? Why or why not?

“I will probably do a Master in Business Analysis. I did a commerce degree originally. Currently at work I do a lot of systems support, and as part of that we look at the analysis of current projects.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

“It was good to be able to get into the technology side of studying. The last time I did it, it was a lot different. So it was to be able to see if I could handle online learning in its current form.”

“I would definitely consider Charles Sturt, along with UNE, which I studied through before. And because I am based in Brisbane I would also probably look at UQ or QUT. Even though I would be studying online, I think there’s a benefit in having them here if needed. But I’d probably prefer to go back to either CSU or UNE.”
8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q7: “I’d probably prefer to go back to either CSU or UNE.”
P9, Female, 36-40

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was quite good. I’m definitely certain now it’s the field I want to go into in terms of work. It’s also pointed me in the direction of some good resources to help me achieve my, my goals, so that’s also a really good outcome. I had a very positive experience and I want to do more.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“Yes, doing the course made me realise, ‘yes, I get this and it can make a huge difference’. And that’s what I want to do. It hasn’t helped me narrow down which area of business analysis I want to do but it’s definitely where I’m forging towards. I’ve got a financial background so I’m probably - I’ve actually gone and signed onto some more MOOCs with SAP at the moment. So…it’s something I’ve dealt with in the past and I have an interest there. I think I could do well in that arena because I do have that financial – like, I have an accounting degree behind me, numbers come easy. I’m investigating to see whether that is where I want to take my business analysis skills and put them to good use over there.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“No change I don’t think. I am focused more on learning things that are of practical benefit to me.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I’d still like to do some more study. I’m a person who likes to study. And I like to do practical samples of things, which is ingrained to me. Not such much just understanding the concepts but just actually doing it. So I like to go through the exercises, writing a project plan and, you know, doing all the things that go together. I actually like to do it, I guess. So I like that practical side. I guess going through assignments and that kind of thing just really helps me cement what I know. You’re putting into practice something that you’ve learned, or you’ve had to go and read a bit more to understand it to then do it. To me that’s very beneficial.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“If I was to continue doing study I would always look at Charles Sturt first and see if it met my needs, and if it did, then great – but if not, then I’d look elsewhere. But my experience has always been positive. The course was run very well. I did not see the marketing session.”

6) Would you consider university enrolment in the future? Why or why not?

“It’s a possibility yes.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q4: “If I was to continue doing study I would always look at Charles Sturt first.”
8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q4: “I would always look at Charles Sturt first and see if it met my needs, and if it did, then great.”
P10, Male, 46-50

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I enjoyed it. There were a few techniques that I learned through the course that I hadn’t learned before. The instructor also mention a couple of books relating to the topic – and I hadn’t seen some of those before. And even though the exercises were fairly simple they were still useful in getting you to analyse a problem in different ways. So overall I thought it was really good.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“Absolutely. I learned stuff that I didn’t know before and that’s always a bit of a pathway to being curious about things. So I would like to take if further.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“Curiosity remains the main motivation but I would like to take if further. When we spoke last time I mentioned that I was doing some Coursera stuff and so my interest in the data science area hasn’t really changed at all. But the BA stuff through this institute – it’s now on the list, that’s for sure.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I’d like to do other MOOCs. I like the way it’s set up. I think I will. I’ve first got to finish off the John Hopkins MOOC. And then I think I’m going to look around [for a university] course but Charles Sturt is definitely on the list.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“After the MOOC, my view of Charles Sturt is that it’s a lot more competent than universities involved with other MOOCs I’ve done. The presentations flowed more smoothly. I’m going to compare it to a data science MOOC with another university. The way Charles Sturt presented each lesson was self-contained. It linked to before and after, which is good but it flowed really well. Whereas the other MOOC I did with John Hopkins University just jumped around all over the place and half the time you never knew what was expected of you in any one particular session. I never got that impression with Charles Sturt – it was always really clear as to what the outcome was at the end of each of the session.”

“I did see some of the marketing session. I think it was a good add-on to the end of the sessions, because after 1 or 2 sessions I wanted to know where it was going and how you could get partial credit into something else.”

6) Would you consider university enrolment in the future? Why or why not?

See response to Q4: “I think I’m going to look around [for a university] course.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?
8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

“I feel like I tested the online environment with this university. And for me, online study – perhaps with the option of a residential – is the only way to go because I have so much stuff going on that you’ve got to fit in study where you can, and online is the only way you can do that.”

“I liked the fact – and this is absolutely critical - that there was a bit of interaction between different students on the forums. This has to keep going. When Coursera changed from their old platform to the new platform all that stopped. Since I’ve moved across to the new platform there’s been virtually no posts at all. But with the Charles Sturt stuff, because part of the assessment requirements was to comment or to create something unique on the forums, that’s been a really positive thing. Yes, the signal-to-noise ration wasn’t fantastic but there were the occasional topic – for example, the force field analysis of the census that generated a lot of great feedback. I quite enjoyed that. At least you’ve got people interacting, which is more than what’s happening in a lot of other MOOCs.”
P11, Male, 51-55
[Did not complete]

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I basically did the first lecture...to be honest I’m just kind of getting into my newish role, I’ve been in the company about a year...I don’t know why I jumped into do the [MOOC] but I did not progress, unfortunately.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“Yes, I enjoyed it.”

“When I did the Cyber Security course, the lecture notes were better aligned to the exam questions. I also did the certified trainer. I found the exam questions very different to the lectures. This course was probably in the middle between the two.”

“One of the things I found interesting was that how the BA role was presented in the course was quite different to how it happens in practice, certainly in my experience. The BA role in the course was the be-all and end-all of projects. I found that often the BA has a critical role to play, and having a good BA on the team is very important in gathering the requirements and translating those into something that is suitable. But for me the course was a very interesting approach.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“It was beneficial for me because I employ BAs allocated into my project team from time to time. So it gave me a better understanding of skill sets etc.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I’m looking forward to doing another MOOC [with Charles Sturt University / IT Masters]. They are very worthwhile. When I’m in a more stable position, I will certainly be looking at doing a full course.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“Originally I was looking at consolidating my knowledge altogether and doing the Masters of IT (Management) [from Charles Sturt University] but the one area I have become very interested in is in cyber security and cyber threats. There was a very good show in the last week, I think on Four Corners, on the increasing susceptibility of organisations to cyber threats.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“I think these courses reinforce my assessment of Charles Sturt. I attended a couple of online webinars with the University of Singapore but I didn’t find them as engaging. In actual fact, both my stepson and his wife are studying at the moment at UTS in IT. Earlier this week I was one of their interviewees for an assignment they’re doing. And I put a plug in – I said that Charles Sturt was a much better university for IT than UTS.”

6) Would you consider university enrolment in the future? Why or why not?

“I am thinking about doing a Charles Sturt University course. It’s a matter of having the funds available. But when it comes the time to be able to do that then Charles Sturt would definitely be at the top of my list.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?
See response to Q6: “I am thinking about doing a Charles Sturt University course. It’s a matter of having the funds available. But when it comes the time to be able to do that then Charles Sturt would definitely be at the top of my list.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q6: when it comes the time to be able to do that then Charles Sturt would definitely be at the top of my list.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I enjoyed it but I was very, very stretched for time. I’m very glad I didn’t jump straight into a Business Analysis course. It did turn out to be a little bit different to what I was expecting in terms of a potential career pathway – but yes I found it very useful.”

“One thing I found a bit off-putting was that the course did emphasise software development as such, which is not really my area. I am more of a systems development type person. For example, if I’m developing a wide area network I don’t necessarily need to specify the function of the software. So the impression I had was that the course was very much focusing on the functionality of software. So that’s why I have mixed feelings. All the tools were very appropriate to what I want to do. From that aspect I found it fantastic. Maybe I’ve got the wrong impression but I don’t think I want to get involved in the whole functionality of software. So if that’s what business analysis is about, it may not be for me.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

See response to Q1: “I’m very glad I didn’t jump straight into a Business Analysis course. It did turn out to be a little bit different to what I was expecting in terms of a potential career pathway – but yes I found it very useful.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I enjoyed [the online learning experience] but I was expecting it to be a little bit more interactive. I had done some online learning in the past. If you have a look at the way the Scouts do their online training – it’s an absolutely fantastic way of doing it. I did enjoy it but I also had technical issues on and off. I think you were using a Citrix system, and I just had issues with that on and off. More in the beginning of the lectures where I had to reboot my system. Once it was stable it all worked well.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

See response to Q1: “I’m very glad I didn’t jump straight into a Business Analysis course. It did turn out to be a little bit different to what I was expecting in terms of a potential career pathway – but yes I found it very useful.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“I’m very happy with [CSU] quite frankly. I did a course with an RTO about a year ago. In the end I felt they’d just taken my money. Although I passed I felt that I got nothing out of it because they didn’t have any credibility. I personally think they were fly-by-nights. So it was a lot of my time down the train and a lot of my money down the drain. So I did appreciate Charles Sturt giving me the opportunity to establish that they weren’t a fly-by-night. So what it’s done is reinforce the fact to me that they are a solid university. That it’s an organisation that I can comfortably go to.”

“I caught one [of the marketing sessions]. I did see that Charles Sturt has some fairly interesting courses, including Master’s courses. So I am more actively looking at the courses they are offering.”

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6) Would you consider university enrolment in the future? Why or why not?

“Given my MOOC experience, the universities I would consider would be very few. Charles Sturt has basically passed the hurdles in terms of it being a respected university, the can run a course well – the capabilities are all there. But I would still consider a few other universities when the time comes.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q6: “…the universities I would consider would be very few. Charles Sturt has basically passed the hurdles in terms of it being a respected university…."

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

“If I considered another university, I would need to qualify them as one I would want to waste my time with.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was challenging. We had a new baby mid-course. So I struggled really to find time to do the lectures. I managed to get through them all but it was a little bit of a rush.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“I thought the course content was good. I found it better than my first experience doing the project management stuff [with Charles Sturt University]. I [IT Masters] worked out the pace a bit better and had more feel for how much content they could get in. [With the project management course] there was too much content.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

N/A

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I’m definitely keen to do some further study, so there’s a number of different things I’m considering at the moment, like an MBA or some more specialist technical courses on Business Analysis. I’m trying to work out now where do I go to get that education, in terms of the types of providers – in terms of what universities or specialist management schools or even online courses that I choose. I find it really confusing and complex times. So my limiting factor at the moment even more so than money is time. Whatever [study] I want to do I want it to be most beneficial to me with the time that I invest.”

“I feel like we’re in a transition time where universities have the kind of marketing edge in terms of reputation. But the times are changing so currently I’m still trying to work out what my future employers are going to be interested in – what do they value? And that totally depends on what generation do they come from. Perhaps older managers really rate specific university qualifications or are they younger people who actually just care about what you have achieved in your career rather than your specific qualifications.”

“In my mind, as a gen-Xer, I still feel that quality education is still very important, and a little bit of that is around the reputation of the brand of certain educational providers. There are people I’ve known in Melbourne who’ve done their MBAs through less reputable institutions and they haven’t felt like they’ve got as much out of that because it hasn’t been of the same quality…But I’m not sure what the next generation will think. In my line of work, education demonstrates a little bit about what people know but also about their ambition and aspiration.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“Half the reason I do them is – they were topics I am interested in, but it is also about how the university functions, what do they offer, what’s the quality of their teaching, what’s their methods of teaching. In this one there were sales pitches from the university and I think that is fine, I think it’s appropriate. The reverse of it all is that, as much as it can win people over, if it’s poorly executed it can turn people away.”
6) Would you consider university enrolment in the future? Why or why not?

“Yes it is a definite consideration. Because of the pace of change, having a good foundation [through a university degree] ... is beneficial.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

“It is possible but I’m still trying to work that out.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

N/A
P15, Male, 31-35

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“It was a great course. Very insightful, very eye-opening. Useful.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“Yes. I’ve decided now that I’m more interested in generalising my skillset rather than focusing on one particular discipline. I think I enjoy working as someone who can fulfil a number of different roles rather than specialising in one thing. I’m not saying that being a BA pigeon holes you because you can be a BA in lots of different fields but I’m not looking for something that’s BA specific. In fact my ideal now — which is different from the last time we spoke — to have a role where I focus on some other area. It could be services delivery, it could be operations management; but using the principles that a BA might employ. I think that’s my ideal move now.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“The MOOC did stimulate my curiosity for further learning. I’d say it contributed about 25% to my awareness or appreciation for further education. Of course, I think education has always been the way forward for me. I’ve just been in denial.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“This will lead to university for sure. I’m now quite firm about enrolling next year. I’ll probably apply for a couple of different universities — 2 to 4 universities. And depending on whether or not I get in, I will then take my pick from whichever makes most sense at that point in time.”

“My MOOC experience contributed to this goal for sure — but I wouldn’t be able to give all of the credit to the MOOC.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“I’m a lot more open to enrolling with CSU. They’re in my shortlist now. The MOOC played a big role in this — first-hand experience of what to expect from the course itself. I’m assuming that the CSU course will follow a very similar format to the MOOC. So going on the MOOC experience, I was happy with how the course was delivered and how the material was assessed.”

6) Would you consider university enrolment in the future? Why or why not?

See response to Q4: “This will lead to university for sure. I’m now quite firm about enrolling into university next year.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q5: “I’m a lot more open to enrolling with CSU. They’re in my shortlist now.”
8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

“UTS is probably my first pick because it's conveniently located. UWS – I went to their open day on Sunday. The University of Sydney is also not too bad in terms of getting to the campus.”
P16, Female, 41-45

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I enjoyed the MOOC. It was interesting and pertinent because I’ve recently been asked to do a portion of work that is all about information gathering and BA.”

“I thought it was really well done. We had audio issues on the first night, which meant I could only hear one word in five, so I didn’t listen to the whole presentation. It just got too frustrating in the end. So I had to listen to the recording. But there were no issues after that. The only issues that I had with the course was that there was 4 or 5 audio bites with each week’s webinar, and some reading and that sort of thing. The implication that it was pre-work to do before the seminar, yet that section was not opened until about 11 o’clock on the day of the webinar, which made it absolutely impossible for me and my team to actually have time to get that pre-work done.”

“The audio sound bites were actually really, really good – they were really good value. You could stick them on your iPod and listen to them in the car to and from work. When I listened to them I just felt that I should have been listening to them before the webinar but I didn’t get time. But that was literally the only issue that I had. The presenter was great – obviously knowledgeable – the Moodle was well designed, and as a Moodle developer I know what I’m looking at.”

“One other thing. Everyone is really grumpy at the fact we don’t get the results for our exam when we do it. That everybody had to wait until a week after. I mean the exam was multiple choice or drag-and-drop matching, so we could have clicked submit and had our response there and then. So that was a little frustrating too.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“Almost all of our team, about 5 or 6 of us, all did the MOOC. Everyone was pretty happy with it. What we found was that different things piqued different peoples’ interest. We can all see ways in which BAs can improve what we do.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“Learning for personal development is still my main aim.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“I will possibly do something more in the BA space. As an indirect result of it, my team is going to complete another short course in Business Analysis through our work. But I don’t know that I’d go specifically out of my way to do a qualification in Business Analysis but I’d certainly be interesting in looking at it a bit more closely. Only yesterday I purchased one of the books that were recommended thought the course. I got it because I could see how it would help me in my project management role.”

“The presenter recommended a book in week 3 or week 4, and I was able to find a review site with the first chapter on it, which all my team then looked at. So I then went out and purchased it for future reference.”
5) **Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?**

“I had an ambivalent opinion of Charles Sturt, not having had any real interaction with them before. I can certainly see potential there now for a further learning relationship. As part of the MOOC they said that Charles Sturt do a Grad Cert and a Masters in project management, which I’m interested in doing in the future.”

“I also received an email asking if I would be interested in more information about courses in a number of different areas. I noticed that project management was one of them, so I sent back a reply saying I would be interested in learning more.”

“One of the things that my team and I found after we had a discussion after each webinar was that a lot of what it was talking about and the tools used are very similar to project management, which is the area we’re all working in at the moment. And so we could all see how having those skills could only improve our ability to manage a project well. So I could see myself doing something further in it but I don’t know that I have the motivation to do postgraduate studies in BA.”

6) **Would you consider university enrolment in the future? Why or why not?**

“Yes I would consider Charles Sturt in future, although when I looked into the courses it was very costly. I’m studying at the moment with another university at about $1300 a unit and the cost for Charles Sturt was 3 grand a unit. But I can still say that Charles Sturt is most definitely on my radar now. When I finish the university study that I’m doing and go ‘what’s next’, Charles Sturt will be first or second of the universities that I go to so I can research what’s out there.”

7) **In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?**

See response to Q6: “When I finish the university study that I’m doing and go ‘what’s next’, Charles Sturt will be first or second of the universities that I go to so I can research what’s out there.”

8) **How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?**

See response to Q6: “When I finish the university study that I’m doing and go ‘what’s next’, Charles Sturt will be first or second of the universities that I go to so I can research what’s out there.”
1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“Really well. It was a well organised one. This is the third one I’ve done with you guys, and I think it was the most organised. It’s not to say the others were bad…but the presenter was right on top of the topic, and the pace he did it, and the way he stopped several times through it to see if there’s any questions coming in. It just seemed really well organised and well-thought through. I also did the final exam.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

“Yes it met my original criteria of satisfying my curiosity and giving me an overview of the topic area. It even inspired me to buy one of the textbooks that [the presenter] recommended, which just arrived yesterday. So I’ll look a bit further into it all.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I am still focused on the curiosity side of learning more than anything, so I would say that things haven’t changed.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

“There is another area of interest, which is psychology. And again, I don’t want to become a psychologist whatsoever, but I just want to have a bit more of an understanding of psychology. I’m looking at enrolling in a formal course rather than the MOOC courses. And in fact I have enrolled.” And in fact I have enrolled. I was looking at Charles Sturt. I was also looking at Swinburne, both to do undergraduate distance education unit on psychology (a single subject). I picked Swinburne in the end. The two subjects that are on offer looked near enough to identical but the price differential was quite amazing. Charles Sturt was asking around $1800 and Swinburne was around $800. It looks to me like it’s near enough to the same course so I thought I might as well go for the $800 one – as much as I like Charles Sturt because I did my masters through them.”

“I think that’s probably enough for me [in the BA space]. There were a few different tools I hadn’t heard of, and now with the book that [the lecturer] recommended, I think that pretty well covers the BA space for me and what I need to know. I would certainly consider doing another MOOC from CSU in some other field though – no doubt at all.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

See response to Q4: “I like Charles Sturt because I did my masters through them.”

6) Would you consider university enrolment in the future? Why or why not?

See response to Q4: “I’m looking at enrolling in a formal course rather than the MOOC courses. And in fact I have enrolled.”

7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?
See response to Q4: “I was looking at Charles Sturt. I was also looking at Swinburne.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q4: “I was looking at Charles Sturt. I was also looking at Swinburne, both to do undergraduate distance education unit on psychology (a single subject). I picked Swinburne in the end.”
P18, Male, 31-35
[Did not complete]

“I just didn’t have the time available. I’m not sure what is next for me in terms of study – will have to work that out.”
P19, Male, 56-60

1) Welcome back. So what was the MOOC like? Did you complete it? Did you do all the assessments and homework and attend all the webinars?

“I enjoyed it and it met my expectations. It was good. I’m pleased with the outcome, it was everything I wanted it to be.”

“I’ve just got a couple of bits of feedback. There were just two areas. One was given how time poor I was it would have been really good to have access to the next week’s lot of slides and preparatory work to do ahead of time – maybe on the Monday. We had Wednesday sessions. If we had had that earlier, then I would have extra time to review it all. And once of twice the audio feeds may not have been ahead of time, and these are things I used to listen to ahead of time – on the train, for example. On the plus side those audio podcasts were really good, I thought they were excellent. And the presenter was fantastic. He knew his stuff. A very high quality of presentation.”

2) In the first interview you spoke about the reasons you would consider your MOOC experience to have been a success. By that criteria, was the MOOC a success? Why or why not?

See response to Q1: “I enjoyed it and it met my expectations. It was good. I’m pleased with the outcome, it was everything I wanted it to be.”

3) During the first interview you spoke about your learning approach. Did your interaction with the current MOOC change these learning motivations or do they remain the same?

“I don’t think it’s changed from when we spoke before the course.”

4) In the first interview we spoke about where you thought that completion of this MOOC might lead you in terms of your future study. Now that the MOOC is over, do you still think this? Or do you see yourself following some other educational pathway?

No, I don’t think this has changed my motivation to jump in and do a Masters. It would persuade me to do another short course. I think this one went really well. I got a lot out of it. Fantastic value, of course.”

“I did come across a subject in the marketing material on professional communications. I’m tempted to do that subject. It’s a paid-for one.” [When he found out that the same presenter of the MOOC was the lecturer for this subject] “Oh is he? Really? That’s yet another reason I would really enjoy it.”

5) Now that the MOOC is over, can you tell me your view of the university institution (CSU) that was associated with it? Did the MOOC experience or the marketing session influence your view?

“The MOOC was so professionally run that I’ve gone away with a very positive impression of the university. I didn’t know about the marketing session. That must have just been tacked on right at the very end? I wasn’t aware of them coming up.”

6) Would you consider university enrolment in the future? Why or why not?

“If I did further education, the first place I would definitely go would be with CSU. There’s no two ways about it. Only if I was not happy with what content was offered would I look anywhere else. So as far as that goes, I’m definitely a warm contact. I would just go straight to CSU and see if what I need was there and jump in. I wouldn’t be doing any market research because I’ve tried the real thing and it’s been a very positive outcome.”
7) In selecting an institution for future university study, would you include the host institute in your shortlist? Why or why not? Are there any other institutions you would include in your shortlist? Why or why not? Would you do any further research regarding institutions to enrol in?

See response to Q6: “If I did further education, the first place I would definitely go would be with CSU. There are no two ways about it.”

8) How likely is it that the current institution is likely to be chosen from the shortlist of educational providers? What are the reasons you would/would not choose this educational provider from your shortlist?

See response to Q6: “If I did further education, the first place I would definitely go would be with CSU. There are no two ways about it.”
Appendix 3

Pre-MOOC Quantitative Survey

Q1 Welcome!

You have been invited to take part in a research project titled MOOCs to University: A Quantitative study. This research will explore the reasons why individuals study free short courses - also known as MOOCs (Massive Open Online Courses) - and the impact of this experience on their university enrolment intentions. This knowledge may be used by providers such as Charles Sturt University and IT Masters to encourage more participants to undertake tertiary study.

This research is being conducted by Jason Howarth (the Chief Investigator) from Charles Sturt University Australia as part of the requirements for his PhD thesis. To take part in this project you first need to give your consent. Once consent is given you will be presented with a brief online survey. This survey will include questions about your reasons for enrolling in the course, your educational background, and your attitudes towards both future university enrolment and Charles Sturt University. If you agree to participate, we will also ask you (via email) to complete another brief survey once the course is over.

Please navigate to the next page where there is an option to provide your consent. You can then commence the survey.

Q2 Before commencing this survey, you must first consent to involvement with the research project. Please read the information below carefully before indicating whether or not you consent.

Project Title:
MOOCs to University: A Quantitative Study

Chief Researcher:
Jason Howarth, BInfoTech(Hons) CSturt
PhD Candidate
Charles Sturt University
Bathurst NSW 2795
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Email: sdalessandro@csu.edu.au

Professor Lesley White
Charles Sturt University
Bathurst NSW 2795
Email: lwhite@csu.edu.au
I agree to participate in this research project and give my consent freely. I confirm that I am aged 18 years or over. I understand that the project will be conducted as described in the Information Statement. I understand that I can withdraw from the project at any time up to the point that I choose to complete and submit the second-stage survey, and do not need to give a reason for doing so.

I consent to:

- Undertaking the following pre-MOOC online survey
- Being contacted via an email from the Chief Investigator when the course is over with a request to complete another brief online survey (the post-MOOC survey)
- Undertaking the post-MOOC survey
- Receiving an email from the Chief Investigator containing a summary of the research findings when the research project is complete.

I understand that any information I provide as part of this research project is confidential, and that no information which might lead to the identification of any individual will be disclosed in any report on the project, or to any other party.

☐ Yes I give my consent
☐ No I do not give my consent

Q3 Please provide your contact details

☐ Your name ________________________________
☐ Your email address ________________________________

Q4 Are you currently enrolled in a university course?

☐ Yes
☐ No

Q5 Have you enrolled in any other MOOCs or free online short courses previous to the free short course?

☐ Yes
☐ No
Q6 The university associated with the free short course is Charles Sturt University (CSU). Please indicate your level of awareness concerning CSU (choose all that apply)

- I have never heard of CSU
- I have heard of CSU but know very little about them
- I am aware of one or more specific university courses offered by CSU
- I am aware that CSU offers both online and on-campus study options
- I am aware of one or more locations where CSU operates
- Other (please specify) ________________________________________________

Q7 Please indicate your level of previous educational involvement with Charles Sturt University (CSU) (choose all that apply)

- This is the first course I have ever studied with CSU
- I have previously completed other MOOCs or free short courses with CSU
- I am currently enrolled in a degree course through CSU
- I am a graduate of CSU
- Other (please specify) ________________________________________________

Q8 You may have enrolled in the free short course to achieve one or more personal, educational or professional goals. Please select ALL goals that best describe your reasons for enrolling into this course.

- To advance my existing career
- To prepare myself for a new career
- To gain an award or certification
- To gain knowledge for its own sake
- To satisfy my curiosity for the topic area
- To choose a course of study that is free
- To pursue a course of study that is short in duration
- To connect with others who have an interest in the topic area
- To pursue a course of study that is online
- To learn more about MOOCs or free short courses
- To learn if online study works for me
- To determine if Charles Sturt is an institution I would later want to enrol with
- To determine if Charles Sturt University can deliver online content effectively
- Other (please specify) ________________________________________________
Q9 Please arrange the goals (drag and drop) you provided for enrolling into the free short course so that they are ranked in order of importance, from most to least important.

______ To advance my existing career
______ To prepare myself for a new career
______ To gain an award or certification
______ To gain knowledge for its own sake
______ To satisfy my curiosity for the topic area
______ To choose a course of study that is free
______ To pursue a course of study that is short in duration
______ To connect with others who have an interest in the topic area
______ To pursue a course of study that is online
______ To learn more about MOOCs or free short courses
______ To learn if online study works for me
______ To determine if Charles Sturt University is an institution I would later want to enrol with
______ To determine if Charles Sturt University can deliver online content effectively
______ Other (please specify) ________________________________________________

Q10 The reasons I enrolled in the course in preference to a university course in the same or similar topic area are (select all that apply)

☐ I already have a university degree and do not want another
☐ I am testing the overall quality of the host university (CSU) by enrolling in this course first
☐ I am testing the relevance of the topic area by enrolling in this course first
☐ This course was free
☐ This course offers better value for money than a university course
☐ This course will take less time to complete than a university course
☐ I am unaware of any university course in the same topic area
☐ I am unlikely to be accepted into university
☐ A university course represents too great a commitment
☐ A university course will teach additional topics that I have no interest in
☐ This course is likely to lead to better career outcomes than a university course
☐ The knowledge gained from this course is likely to equal that which could be gained from a university course
☐ Employers are likely to value the certification I get from this course as much as from a university course
☐ Other (please specify) ________________________________________________
Q11 Some of the reasons that might make me prefer doing a university course to a free short course or MOOC in future are (choose all that apply)

☐ University is likely to offer a better return on my time investment than MOOCs / free short courses

☐ Employers are likely to value university certification more than a MOOC / free short course certification

☐ University is likely to lead to better career outcomes for me

☐ The knowledge I would gain from a university course is likely to exceed the knowledge I would gain from a MOOC / free short course

☐ Other (please specify) ________________________________

Q12 Please drag the slider to indicate how likely you are to enrol in a university course within the next 12 months.

Extremely
Moderately
Slightly
Neither
Slightly
Moderately
Extremely
unlikely
unlikely
unlikely
likely
likely
likely
likely
nor
unlikely

0 1 2 3 4 5 6 7 8 9 10

Q13 Please drag the slider to indicate how likely you are to enrol in a university course with Charles Sturt University within the next 12 months.

Extremely
Moderately
Slightly
Neither
Slightly
Moderately
Extremely
unlikely
unlikely
unlikely
likely
likely
likely
likely
nor
unlikely

0 1 2 3 4 5 6 7 8 9 10

()}
**Q14** With reference to your learning goals for course, please indicate your level of agreement with each of the following statements

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

| My goal is to completely master the material that is presented in this course |
| It is important for me to understand the content of this course as thoroughly as possible |
| My goal for this course is to learn as much as possible |
| My goal for this course is to earn a certificate of completion |
| My goal for this course is to perform well relative to other students |
| My goal for this course is to perform better than other students |

---

**Q15** Gender

- Male
- Female

**Q16** Please specify your age group

- Less than 26
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- 56-60
- 61 or over
Q17 Residency or citizenship status
☑ I am an Australian citizen or resident
☑ I am NOT an Australian citizen or resident

Q18 Your tertiary educational qualifications (choose all that apply)
☑ TAFE or Vocational Certificate
☑ TAFE or Vocational Diploma
☑ TAFE or Vocational Advanced Diploma
☑ University Associate Bachelor Degree
☑ University Bachelor Degree
☑ University Master Degree
☑ University Doctorate
☑ Other (please specify) ____________________________________________
Post-MOOC Quantitative Survey

Q1 Welcome back!

We hope you enjoyed the course. We would now like you to complete a brief post-MOOC survey about your experiences, as well as your attitudes towards free short courses or MOOCs, and possible university study.

This is the final online survey that you will be asked to complete as part of this research project. The survey should take no more than 5-10 minutes to complete.

Q2 Please provide your contact details

☐ Your name ________________________________________________
☐ Your email address __________________________________________

Q3 Did you complete the final exam for this course?

☐ Yes
☐ No

Q4 Did you earn a Certificate of Completion for this course?

☐ Yes
☐ No
☐ Unsure

Q5 Please drag the slider to indicate your overall level of satisfaction with the course

Extremely Dissatisfied Moderately Dissatisfied Slightly Dissatisfied
Slightly Satisfied Moderately Satisfied Extremely Satisfied

Nor Satisfied Satisfied Satisfied

0 1 2 3 4 5 6 7 8 9 10
Q6 Please drag the slider to indicate your level of satisfaction with the online format of the course

Extremely dissatisfied  Moderately dissatisfied  Slightly dissatisfied  Neither satisfied nor dissatisfied  Slightly satisfied  Moderately satisfied  Extremely satisfied

0 1 2 3 4 5 6 7 8 9 10

Q7 Please drag the slider to indicate your level of satisfaction with the learning materials used within the course

Extremely dissatisfied  Moderately dissatisfied  Slightly dissatisfied  Neither satisfied nor dissatisfied  Slightly satisfied  Moderately satisfied  Extremely satisfied

0 1 2 3 4 5 6 7 8 9 10

Q8 Please drag the slider to indicate your level of satisfaction with the teaching methods used within the course

Extremely dissatisfied  Moderately dissatisfied  Slightly dissatisfied  Neither satisfied nor dissatisfied  Slightly satisfied  Moderately satisfied  Extremely satisfied

0 1 2 3 4 5 6 7 8 9 10
Q9 Some of the reasons that might make me prefer doing a university course to a free short course or MOOC in future are (choose all that apply)

- University is likely to offer a better return on my time investment than MOOCs / free short courses
- Employers are likely to value university certification more than a MOOC / free short course certification
- University is likely to lead to better career outcomes for me
- The knowledge I would gain from a university course is likely to exceed the knowledge I would gain from a MOOC / free short course
- Other (please specify) ________________________________

Q10 Please drag the slider to indicate how likely you are to enrol in a university course within the next 12 months.

Extremely | Moderately | Slightly | Neither | Slightly | Moderately | Extremely
unlikely | unlikely | unlikely | likely | likely | likely | likely
nor unlikely

0 1 2 3 4 5 6 7 8 9 10

Q11 Please drag the slider to indicate how likely you are to enrol in a university course with Charles Sturt University within the next 12 months.

Extremely | Moderately | Slightly | Neither | Slightly | Moderately | Extremely
unlikely | unlikely | unlikely | likely | likely | likely | likely
nor unlikely

0 1 2 3 4 5 6 7 8 9 10
Q12 If you were to enrol at university in the next 12 months, please select all university providers that you are likely to consider.

- Australian Catholic University
- ANU
- Bond
- Central Queensland
- Charles Darwin
- Charles Sturt
- Curtin
- Deakin
- Edith Cowan
- Federation
- Flinders
- Griffith
- James Cook
- La Trobe
- Macquarie
- Monash
- Murdoch
- Open Universities Australia
- QUT
- RMIT
- Southern Cross
- Swinburne
- Torrens
- University of Adelaide
- University of Canberra
- University of Melbourne
- University of New England
- UNSW
- University of South Australia
- University of Southern Queensland
- University of Sydney
- University of Tasmania
- University of the Sunshine Coast
- University of Western Australia
University of Wollongong
☑ Victoria University
☑ Western Sydney University
☑ Other (please specify) ________________________________________________

Q13 Did you attend, as part of the MOOC, the online information session that discussed the benefits of university enrolment?

☑ Yes
☑ No

Q14 Did you attend, as part of the MOOC, the online marketing session that discussed possible Charles Sturt University courses of interest?

☑ Yes
☑ No

Q15 With reference to your learning goals for any future courses that you undertake, please indicate your level of agreement with each of the following statements

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My goal will be to completely master the learning material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It will be important for me to understand the course content as thoroughly as possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My goal will be to learn as much as possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My goal will be to earn a certificate of completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My goal will be to perform well relative to other students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My goal will be to perform better than other students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
22 March 2016

Mr Jason Howarth
School of Computing and Mathematics
Charles Sturt University
BATHURST CAMPUS

Dear Mr. Howarth,

Thank you for the additional information forwarded in response to a request from the Business Faculty Human Research Ethics Committee.

The Business Faculty Human Research Ethics Committee has approved your proposal “The Effect of MOOC Participation on Adult Learners’ Future Educational Goals” for a twelve month period from 22 March 2016.

The protocol number issued with respect to this project is 200/2016/04. Please be sure to quote this number when responding to any request made by the Committee.

Please note the following conditions of approval:

- all Consent Forms and Information Sheets are to be printed on CSU letterhead. Students should liaise with their Supervisor to arrange to have these documents printed;
- you must notify the Committee immediately in writing should your research differ in any way from that proposed. Forms are available at http://www.csu.edu.au/research/ethics_safety/human/ethic_managing;
- you must notify the Committee immediately if any serious and/or unexpected adverse events or outcomes occur associated with your research, that might affect the participants and therefore ethical acceptability of the project;
- amendments to the research design must be reviewed and approved by the Faculty Human Ethics Committee or if no longer minimal risk by the University Human Research Ethics Committee before commencement. Forms are available at the website above;
- if an extension of the approval period is required, a request must be submitted to the Faculty Human Ethics Committee or if no longer minimal risk by the University Human Research Ethics Committee before commencement. Forms are available at the website above;
- you are required to complete a Progress Report form, which can be downloaded as above, by 22 March 2017 if your research has not been completed by that date;
- you are required to submit a final report, the form is available from the website above.

You are reminded that an approval letter from the BFHREC constitutes ethical approval only.

If your research involves the use of radiation, biological materials or chemicals separate approval is required from the appropriate University Committee.

www.csu.edu.au
The Committee wishes you well in your research. Please do not hesitate to contact me on telephone (02) 6933 2666 or email bramudu@csu.edu.au should you wish to discuss this matter further.

Yours sincerely

Dr. Ramudu Bhanugopan
Chair
Faculty of Business Human Research Ethics Committee
Direct Telephone: 0933 2090
Email: bramudu@csu.edu.au

www.csu.edu.au

CPCCS Provider Numbers for Charles Sturt University are 00005F (NSW), 01547G (VIC) and 02963B (ACT). ABN: 83 378 708 561

310
1 August 2017

Dr J Howarth
School of Computing and Mathematics
Charles Sturt University
BATHURST CAMPUS

Dear Dr Howarth

Thank you for the additional information forwarded in response to a request from the Faculty of Business, Justice and Behavioural Sciences Human Research Ethics Committee.

The Faculty of Business, Justice and Behavioural Sciences Human Research Ethics Committee has approved your proposal “MOOCs to University: A Quantitative Study” for a twelve month period from 1 August 2017.

The protocol number issued with respect to this project is 200/2017/53. Please be sure to quote this number when responding to any request made by the Committee.

Please note the following conditions of approval:

- all Consent Forms and Information Sheets are to be printed on CSU letterhead. Students should liaise with their supervisor to arrange to have these documents printed;
- you must notify the Committee immediately in writing should your research differ in any way from that proposed. Forms are available at: http://www.csu.edu.au/research/ethics_safety/human/rec_managing;
- you must notify the Committee immediately if any serious and or unexpected adverse events or outcomes occur associated with your research, that might affect the participants and therefore ethical acceptability of the project;
- amendments to the research design must be reviewed and approved by the Faculty Human Research Ethics Committee or if no longer minimal risk by the University Human Research Ethics Committee before commencement. Forms are available at the website above;
- if an extension of the approval period is required, a request must be submitted to the Faculty Human Research Ethics Committee or if no longer minimal risk by the University Human Research Ethics Committee before commencement. Forms are available at the website above;
- you are required to complete a Progress Report form, which can be downloaded as above, by 1 August 2018 if your research has not been completed by that date;
- you are required to submit a final report. The form is available from the website above.

You are reminded that an approval letter from the Faculty of Business, Justice and Behavioural Sciences Human Research Ethics Committee constitutes ethical approval only.

If your research involves the use of radiation, biological materials or chemicals separate approval is required from the appropriate University Committee.

www.csu.edu.au
CRICOS Provider Number for Charles Sturt University are 00009F (NSW) 01947G (VIC and 02989E)(ACT). ABN 43 874 708 551
The Committee wishes you well in your research.

Yours sincerely

Associate Professor Yoslam Al-Saggaf
Presiding Officer
Faculty of Business, Justice and Behavioural Sciences Human Research Ethics Committee

Per:  Kerry Madden

Co Professors S D’Alessandro, L White & L Johnson