



PSYCHOLOGICAL FACTORS THAT PREDICT INTEREST IN
QUALIFICATIONS OFFERED BY BOTH RECOGNIZED UNIVERSITIES
AND UNRECOGNIZED PROVIDERS

A Thesis submitted by

David Anthony Bruce, M.Mgt.

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Abstract

The proliferation of institutions offering degrees in the twentieth and twenty first centuries, and the ubiquitousness of the internet, have opened up a plethora of opportunities for individuals seeking academic credentials. It has also led to a concomitant rise in the number of questionable providers. This research investigates the psychological factors that predict interest in the attainment of qualifications, both from recognized and unrecognized institutions. What do individuals seek to achieve from gaining a qualification and why is it that some individuals seek out fake credentials? The fact that some do, has created an international billion-dollar industry.

The study is contextualised in Social Cognitive Career Theory in the field of vocational psychology. I used the concept of an arch and keystone to conceptually relate these theories to framing my research. From the pillar representing vocational psychology two key elements have particular relevance to my research. The dispositional traits of neuroticism, extraversion, openness, agreeableness, and conscientiousness link to traditional personality theories. The addition of honesty/humility brings it into the domain of six factor theory and is highly relevant to my research. Characteristic adaptations of goals/strivings, work values, self-efficacy, career adaptability, and developmental tasks forge a link with career and employability. The dispositional approach to employability links to the concept of self-perception leading in turn to an examination of Self Determination Theory of which Basic Psychological Needs Theory is a subset. The study is well grounded in the literature and seeks to explore why an individual might purchase a fake degree.

The research comprised two studies, adopting a qual→QUAN mixed methods design. The first study involved semi-structured interviews with a targeted, purposive sample of 15 graduates. The purpose was to ascertain their views about academic credentials and to explore themes pertaining to career-related decisions and the attractiveness of postgraduate degrees. The second study involved participants completing an online survey in order to explore whether it was possible to predict the purchasing of a fake degree by individuals seeking a credential. Key outcomes from the research were the design of a new measure, the Academic Worth Scale (AWS) and a rigorously tested model of factors pertaining to the subscales derived from the factor loadings of the AWS: entitlement, decidedness, shortcut knowledge, limited effort/ease of completion, lifestyle and prestige/aspiration. Goodness-of-fit indicators for the measurement models of the AWS were deemed moderate.

The findings of the two studies were insufficient to predict interest in actually purchasing a fake degree. More research needs to be undertaken in this domain. But the creation of the Academic Worth Scale (AWS), while open to refinements, provides an instrument for future researchers to undertake further investigations in this field.

Certification of Thesis

This Thesis is entirely the work of David Anthony Bruce except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

Principal Supervisor: Professor Peter McIlveen, University of Southern Queensland

Associate Supervisor: Dr Harsha Perera, University of Nevada, Las Vegas

Student and supervisors' signatures of endorsement are held at the University.

Ethics Statement

The author whose name appears on the title page of this work has obtained ethics approval from the USQ Human Research Ethics Committee for the research described in this work. The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

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Dedication

To my grandchildren. May you be inspired to achieve.

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List of Abbreviations

AHRI: Australian Human Resources Institute

ANOVA: Analysis Of a Moment Structures [computer program]

APA: American Psychological Association

AQF: Australian Qualifications Framework

AWS: Academic Worth Scale

BHI: Brief HEXACO Inventory

BNSSS: Basic Needs Satisfaction in Sport Scale

BNPFS-GM: Basic Psychological Needs and Frustration Scale – General

Measure

BPNT: Basic Psychological Needs Theory

CASEQ: Cheating Achievement Self-Efficacy Questionnaire

CET: Cognitive Evaluation Theory

CFA: Confirmatory Factor Analysis

CFI: Comparative Fit Index

CHEA: Council of Higher Education

COT: Causality Orientation Theory

DD: Dirty Dozen [Personality Instrument]

E/I External Industry Demand/Internal Psychic Motivation

EID: External Industry Demand

GCT: Goal Contents Theory

HEXACO: 6 factors of personality: Honesty/humility, Emotionality,

eXtroversion, Agreeableness, Conscientiousness, Openness to experience.

HEXACO PI-R: HEXACO Personality Inventory - Revised

HR: Human Resources

IB: International Baccalaureate INSEAD: Institut Européen d'Administration des
Affaires [European Business School]

IPM: Internal Psychic Motivation

IR: Institutional Reputation

ISSES: Index of Sense of Self-Efficacy Scale

JR: Job Relatedness

LP: Learning Propensity

MINI IPIP6: Mini International Personality Item Pool 6 [Factors]

MODSHRM: Master of Organizational Development and Strategic Human
Resource Management

OCEAN: Openness, Conscientiousness, Extroversion, Agreeableness,
Neuroticism [The big five factors in personality assessment]

OD: Organisational Development

OIT: Organismic Integration Theory

OSSES: Occupational Self-Efficacy Scale

PAF: Principal Axis Factoring

PNSE: Psychological Need Satisfaction in Exercise [Scale]

QS: Quacquarelli Symonds [World University Rankings]

QUAL: Quality [in Mixed Methods descriptors, lower case for minor]

QUAN: Quantity [in Mixed Methods descriptors, lower case for minor]

RIASEC: Holland's occupational themes: Realistic, Investigative, Artistic, Social,
Enterprising, Conventional.

RMSEA: Root Mean Square Error of Approximation

RMT: Relationship Motivation Theory

SCCT: Social Cognitive Career Theory

SDT: Self Determination Theory

SEM: Structural Equation Modeling

SSPES: Student Self-Perceived Employability Scale

TA: Thematic Analysis

TAFE: Technical and Further Education [Institute]

TEQSA: Tertiary Education Quality Standards Agency

TLI: Tucker Lewis Index

TPB: Theory of Planned Behaviour

UK: United Kingdom

US: United States [of America]

USQ: University of Southern Queensland

W-BNS: Psychological Need Satisfaction at Work [Scale]

CHAPTER 1: INTRODUCTION

1.0 Psychological Factors that Predict Interest in Qualifications Offered by Both Recognised Universities and Unrecognised Providers

This chapter introduces the problem: it states the research questions and introduces the driving theory, sets the scene with an overview of the nature of systems in different countries, and introduces the concept of employability and its relation to the problem under investigation. Recognized universities are those which have formal accreditation in an appropriate jurisdiction such as the Tertiary Education Quality and Standards Agency in Australia or the North Central Association of Colleges and Schools in regional United States. Unrecognized providers are those which offer credentials that are not so accredited.

The sale of over a million fake diplomas has evolved into a billion-dollar industry (G. M. Brown, 2006; Ezell & Bear, 2012; Kinser, 2006). The problem is exacerbated by the increasing prevalence of online diploma and degree mills (Johnston & Finney, 2010). Interest in fake degrees has increased in the twenty first century: for example, in 2011 Verifile Accredibase (a highly recognised European screening company with worldwide scope) recorded a 48% increase of bogus education and accreditation providers on its database (Cohen & Winch, 2011). There is plentiful anecdotal material available on diploma mills and significant contributions in this respect from John Bear in the US (Bear & Bear, 1997) and George Brown in Australia (G. M. Brown, 2006); however, there is limited formal research into this problem (G. M. Brown, 2001, 2007; Calote, 2001; Reid, 1963). Given the impact of the internet and the widespread opportunities it has provided for fraudulent activity it is timely for further research to be undertaken.

1.1 Research Question

The goal of the research is to explore the phenomenon of interest in fake degrees using Social Cognitive Career Theory (SCCT) to develop a model of that process. Using career development theory, the intention of this research is to explore reasons why students may choose to purchase fraudulent credentials. There are a number of dimensions for the proposed research: how individuals plan career paths and the requisite courses for them; the factors that impinge upon making a particular institutional selection; the relationship between employability and attainment of credentials; what shortcuts are available, and with what implications.

It is assumed that degree and diploma mills operate in the context of providing some form of credential that the purchaser would use to further her/his own ends in terms of employability. That is, an individual might have an interest in acquiring a fake qualification in order to further career goals. The investigation is concerned with ascertaining whether people displaying low honesty/humility traits are likely perpetrators of the potential to purchase degrees. There has been limited research on this theme, though one study has particular relevance. Marsden, Carroll, and Neill (2005) investigated dishonest academic behaviours of Australian university students and their relationships with demographic factors, academic policy advised to students, academic self-efficacy, and academic grade orientation. Descriptive analyses revealed high levels of three types of self-reported academic dishonesty: cheating, plagiarism and falsification. They concluded that it is misleading to measure academic dishonesty as a unidimensional construct. Clearly falsification is the aspect of particular interest to this researcher.

Social Cognitive Career Theory (SCCT) presents self-efficacy and outcome expectations as key variables in the model. The Theory of Planned Behaviour (TPB) is relevant to understanding cheating behaviour (Beck & Ajzen, 1991); however, TPB has no appreciable status in the vocational psychology literature in contrast to SCCT (Lent & Brown, 2013) which is the predominant social cognitive theory in vocational psychology (McIlveen, 2009). This research is situated in the literature and theory of vocational psychology, as distinct from general theories of behaviour, such as TPB. SCCT is taken as the main theory for the development of research questions and hypotheses because of its focus on agency (S. D. Brown & Lent, 2016).

A key variable is self-efficacy for cheating. The particular interest in the current study is cheating in academic circumstances. This has been explored by Umaru (2013). He developed a measure which was useful in predicting an individual's propensity to cheat which proved most useful in developing the questionnaire for Study 2 (see Chapter 5). Within personality factors the addition of the H factor, honesty/humility (Ashton & Lee, 2008a) has particular relevance to cheating behaviour. Jonason and Webster (2010) developed a measure to probe the dark side of personality which I used in the suite of questionnaires in Study 2. The expectation of reward for holding a degree is also a key variable in an individual's

expressed interest in fake credentials and this dimension was explored in the new instrument Academic Worth in Study 2.

The over-arching research question is: Why do some individuals utilise fake academic credentials? Drilling down there is a number of key sub questions: What is the relationship between honesty/humility and interest in fake credentials? SCCT predicts interest in further studies. Does it predict interest in taking a degree? Are individuals with lower levels of honesty/humility (i.e., H) more likely to purchase a fake credential? And are individuals with a high self-efficacy for cheating more likely to purchase a fake credential?

1.2 The Nature of Systems in Different Countries

A student wanting to study in Australia, for example, could consult the Australian Qualifications Framework (AQF) to find that there are 10 levels of certification (Australian Qualifications Council, 2013). Perusal of the AQF website would reveal that verification of AQF qualifications and the organisations authorised to issue them is through the AQF Register (<http://www.aqf.edu.au/register/aqf-register/>). The Tertiary Education Quality Standards Agency (TEQSA) maintains the National Register of Higher Education Providers (<http://www.teqsa.gov.au/national-register/>).

A student wanting to study in the United States, on the other hand, is confronted with a much more complex picture. There is no one centrally recognised accrediting agency in the United States. The US Department of Education exercises a degree of oversight, but the situation is not as rigorously structured as that in Australia and it is open to abuse. A number of institutions such as the Council of Higher Education Accreditation (CHEA) and the Indiana University School of Education (which has the responsibility of administering the Carnegie Classification of Institutions of Higher Education on behalf of the Carnegie Foundation) support the process through providing information. But it is abundantly clear that there is an aversion to central control. The US federal government does not require a college to be accredited: “No single federal agency has the power to enforce colleges to undergo a quality review for the purpose of accreditation or consumer protection” (V. Phillips, 2010). Regional and private accreditation is prolific in the US and the accrediting agencies are also accredited! It is then possible to ascertain lists of both accredited and unaccredited institutions. Ezell and Bear (2012) are most informative on this count listing 25 pages of unrecognized institutions and 271 unrecognized

accrediting agencies. Moreover, the situation in the US is compounded by different kinds of accreditation language: accredited, state approved, approved and authorised.

Financial accountability has led to increasing reliance on market mechanism and the growth of private institutions, particularly over the last three decades. Case studies of Poland and New Zealand are illuminating here. In Poland, Kwiek (2011) identified three distinct processes marking the turn towards marketization: increasing financial self-reliance of academic institutions; substantial growth in the number of private sector providers (with the highest number of enrolments in the European Union in 2008); and finance-driven cost-recovery mechanisms in the public sector with tax-based fee charges for all part-time students). He noted that “market” and “marketization” have significant meaning in a country which opened to both as late as 1989 (Kwiek, 2011, p. 3). The New Zealand case is one of private entry into a mature higher education system in an economically advanced country, a situation which has burgeoned since 1989 when it became legally possible for private higher educators to operate (Xiaoying & Abbott, 2008). The development of private higher education institutions provides a climate which is conducive to the rise of bogus institutions.

Hanna (1998) noted particular concern about the Global Multinational Universities reflecting the development of a global marketplace for learning. This is problematic in that there is no one jurisdiction to which the institution is responsible. It requires cooperation amongst the authorities of the various locales. It is difficult enough to get agreement on the interpretation of terminology, for example see Jung and Latchem (2012) and Qiang (2003), let alone on policies to address issues such as quality control. Of particular note is Western Governors University’s self-description as a “virtual university”. According to Meyer (2009) the immediate popularity of this term lead to it being applied to a variety of organisational types that were very different from one another. Such complexity more readily allows bogus institutions to enmesh themselves in the international arena.

1.3 Employability and Credential Acquisition

The use of the term “market” in the following term is deliberate and significant. The term “labour market” is often used to describe the job availabilities and opportunities that exist for individuals (see for example Adda, Costa Dias, Meghir, & Sianesi, 2007; Cameron, 2009; Fasih, 2008; Wittekind, Raeder, & Grote, 2010). “Employability” has to do with finding a fit between the individual and those

opportunities. In the context of the present discussion (the postgraduate market) employability can be defined as “a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy” (Yorke, 2006). This aligns with research by Fugate, Kinicki, and Ashforth (2004) that employability is a psycho-social construct: the current research is interested in psychological factors that might predict interest in fake qualifications. A number of commentators: for example, Rae (2007) noted that as universities market themselves more and more professionally they feature “employability” as a factor in their offerings.

Whilst the improvement of career prospects was often found to be the prime motivator for studying a postgraduate qualification it is not the only one. For example, Donaldson and McNicholas (2004) found students also chose to study for their own personal satisfaction. Some, like L. Chen (2007), make a distinction regarding motivation on the basis of domicile. He singled out international graduate students as a different “breed” who “travel from afar to pursue advanced education for the love of knowledge and for personal or professional development” (L. Chen, 2007, p. 759). Azmat et al. (2013) noted international students generally aspire to social status, financial freedom, and a secure lifestyle, while their expectations are the earning of a foreign degree, increased potential earning capacity and experience of a new cultural landscape; all of which can be outcomes of their postgraduate study. In a general article on the international marketing of British education (that is not restricted to the postgraduate arena) Binsardi and Ekwulugo (2003) argued that students are not buying degrees; rather they are buying the benefits such as employment, status and lifestyle that a degree can provide. A UK study into part-time postgraduate education concluded that students in this population were motivated mainly by non-pecuniary considerations, and that monetary benefits and price were not as critical factors as policy-makers appear to think (Pratt, Hillier, & Mace, 1999). Nevertheless, I would argue that prospective employability is a significant factor driving an individual to credential acquisition.

Individuals present themselves to employers with the goal of attaining a particular position. In this they are in competition with other applicants: the task is to convince the employer that the particular individual is superior with respect to the attributes the employer is seeking. The challenge for an individual is to present to a

prospective employer at least the perception that they hold these characteristics. In so doing the production of credentials is one element that contributes to this process: tertiary education can provide and document relevant training experiences. The fact that many employers accept an academic record as proof of involvement at tertiary level leaves open the possibility of falsification. Possession of academic transcripts is one dimension contributing to employability. The question is whether a fake academic transcript will achieve the individual's desired outcome, namely a successful application. The phenomenon of employability merits a more detailed discussion and the concept is addressed further in Chapter 2.

1.4 Thesis Structure

The thesis is presented in six chapters with additional appendices. The thesis reports on two sequential studies. Study 1 consisted of 15 semi-structured interviews pertaining to career-related decisions and the attractiveness of postgraduate degrees. The results were used to help inform the content of Study 2, a suite of questionnaires completed as an online international survey to generate a theoretically informed model of the factors that might influence prospective students' considerations of taking shortcuts when pursuing academic postgraduate credentials.

1.4.1. Chapter 1. Chapter 1 is concerned with presenting the problem: the prevalence of fake credentials and why individuals seek them out; the research questions that emanate from fake credentials, the nature of systems in different countries; and the relationship between employability and credential acquisition. The opening section of the chapter noted that the commercial value of the international fake degree market has been estimated at a billion dollars (Ezell & Bear, 2012). The research question is concerned with what makes the industry so prolific. Why do individuals purchase these wares?

To provide some context a brief examination was made of the nature of systems in different countries. It is beyond the scope of this study to present a comprehensive description: rather some selected scenarios are presented to provide insight to the reader. The Australian scene was included for two reasons. First it is a good example of a country which has a centralised structure to monitor the quality of tertiary education. Secondly my research project is being undertaken with an Australian university, so it makes sense to include the country in which the research is set. The United States was discussed for a number of reasons: it has a system of regional accreditation with weak central control. It also allows private providers to

accredit courses. Such a system is open to abuse and many of the scenarios of fake institutions emanate from the United States. Reference was also made to Poland where financial pressures were leading towards marketization in higher education and to New Zealand which has seen a growth of private higher education institutions. Finally, in Chapter 1 the global marketplace was raised with the concomitant increase in online courses.

1.4.2. Chapter 2. Chapter 2 sites the research in the Integrated Framework for Vocational Psychology (Rottinghaus & Miller, 2013) and Social Cognitive Career Theory (SCCT) (Lent, Brown, & Hackett, 1994). I produced a schematic model (Figure 1) to show the specific relationship with interest in credentials drawing on the work of Super (1990) to diagrammatically present my model using the concept of the arch. The left-hand pillar of my model is the Rottinghaus and Miller (2013) framework. The diagrammatic representation of their model is shown in Figure 2 in which the dispositional traits (neuroticism, extraversion, openness, agreeableness, and conscientiousness) and characteristic adaptations (goals/strivings, work values, self-efficacy, career adaptability, and developmental tasks) have particular relevance to my research. The right-hand pillar of my model is the SCCT model of Lent et al. (1994) including key boxes on person inputs, learning experiences, self-efficacy, outcome expectations, choice goals and choice actions, all of which have relevance to the current research. The Big Five (dispositional traits as noted above)/ Big Six (where honesty/humility is added) theory of personality is discussed with particular reference to Ashton and Lee (2008a) with the model they labelled HEXACO (a title which captures all six personality traits indicated above).

The Literature Review also examines the relationship between employability and career development in the context of the current research. A dispositional approach to employability was proposed by Fugate et al. (2004): a perspective that links to the concept of self-perception which in turn lead to an examination of self-determination theory (SDT) proposed by Deci and Ryan (2002). Their theory specified three basic psychological needs: autonomy, competence and relatedness. The theory proved useful in providing some direction to this researcher in the light of findings from Study 1.

1.4.3 Chapter 3. Chapter 3 discusses the general approach I took in carrying out the research process (Methodology). I took the position that individuals generally strive to advance themselves (an ontological perspective). In examining

the quest for knowledge a focal question here is what is the nature of the relationship between the would-be knower and what can be known? (Guba & Lincoln, 1994): an epistemological question. I then explain that I am adopting a postpositivist approach as the operative paradigm and link this to Social Cognitive Career Theory (SCCT).

Chapter 3 also outlines my personal motivation (axiological). The driving force behind the research was to address the problem of fake credentialism: the incidence of which I became aware in my work as a careers adviser. The chapter gives an overview of the two studies which comprised my research and a final section addressed ethical considerations which arose in the conduct of the study in attempting to minimise bias: some deception as to the true purpose of the research was required.

1.4.4 Chapter 4. Chapter 4 reports on Study 1. The purpose of Study 1 was to ascertain whether or not the bank of surveys forming the questionnaire for Study 2 was adequate. The results suggested that some modifications were required: in particular the Basic Psychological Needs and Frustration Scale – General Measure (B. Chen et al., 2015) was added to the instruments used for Study 2.

Study 1 was a small piece of qualitative research. It comprised a purposive sample of 15 graduates who participated in semi-structured interviews pertaining to career-related decisions and the attractiveness of postgraduate degrees. Guide questions (set out in Chapter 4) were used to explore participants' narratives, probing why a particular choice of institution was made; and a discussion on academic integrity sought how the concept was viewed by participants. How did they define academic integrity, and did they think it really mattered?

1.4.5 Chapter 5. Chapter 5 reports on Study 2. This comprised a comprehensive online survey which probed respondents' views about qualifications; some reflections on their personalities; their attitudes to examinations and cheating and their work, their views about academic standing and employability; and their attitudes to deception and life in general as well as some demographic information such as age, gender, and where they took their first degree. Of the seven measures, six used already established instruments meaning they have already been verified for validity and reliability. Statistical data for my research is given in Chapter 5. It was necessary to construct one new instrument which I designated the Academic Worth Scale (AWS) and this required some rigorous testing which is reported on in Chapter 5.

1.4.6 Chapter 6. Chapter 6 (general discussion) addresses a number of issues arising from the conduct of the research. It discusses implications: theoretical, methodological and practical; limitations and some ideas for future research. For example, were the Academic Worth Scale (AWS) to be used to replicate this study or undertake a similar project I would recommend some modifications.

1.4.7 Appendices. The Appendices contain relevant documents for the two studies. Appendix A contains the Participant Information Sheet and the Participant Consent Form required for Study 1. (For Study 2 this information was provided in the email invitation to alumni and the introductory part of each questionnaire in the suite of questionnaires. Consent was given by hitting the submit button). Appendix B provides copies of the suite of questionnaires. These were the new scale, Academic Worth Scale (AWS); THE Mini IPIP6; the Cheating Achievement Self-Efficacy Questionnaire (CASEQ); the Occupational Self-Efficacy Scale (OSES); the Student Self Perceived Employability Scale (SSPES); the Dirty Dozen; and the Basic Psychological Needs and Frustration Scale – General Measure (BPNSF-GM). Appendix C contains the additional measures referred to in the text that were considered in the process of developing the final set of instruments. These were the HEXACO 60 item version, the Brief HEXACO Inventory (BHI), and the Index of Sense of Self-Efficacy Scale (ISSES). Appendix D contains the Windsor Deception Checklist which was used to justify misleading respondents as to the true purpose of the survey in Study 2.

CHAPTER 2: LITERATURE REVIEW

2.0 Overview of Relevant Literature and Models Pertaining to the Study

This chapter provides a visual representation of the theoretical constructs in my approach before proceeding with a literature review of key models and theories underpinning the research project.

2.1 Schematic Framework of Career Development

The project uses career development theory to answer the research question. It draws heavily on the pioneering work of Lent et al. (1994) in formulating Social Cognitive Career Theory (SCCT) and the Integrative Framework of Career for Vocational Psychology developed by (Rottinghaus & Miller, 2013). A schematic diagram illustrating the theoretical constructs in my approach is presented in Figure 1. Note that for an analytical conceptual framework I perceive SCCT as a pillar of an arch with a keystone of career theory, rather than as a subset of an integrated framework for vocational psychology expressed as a Venn diagram.

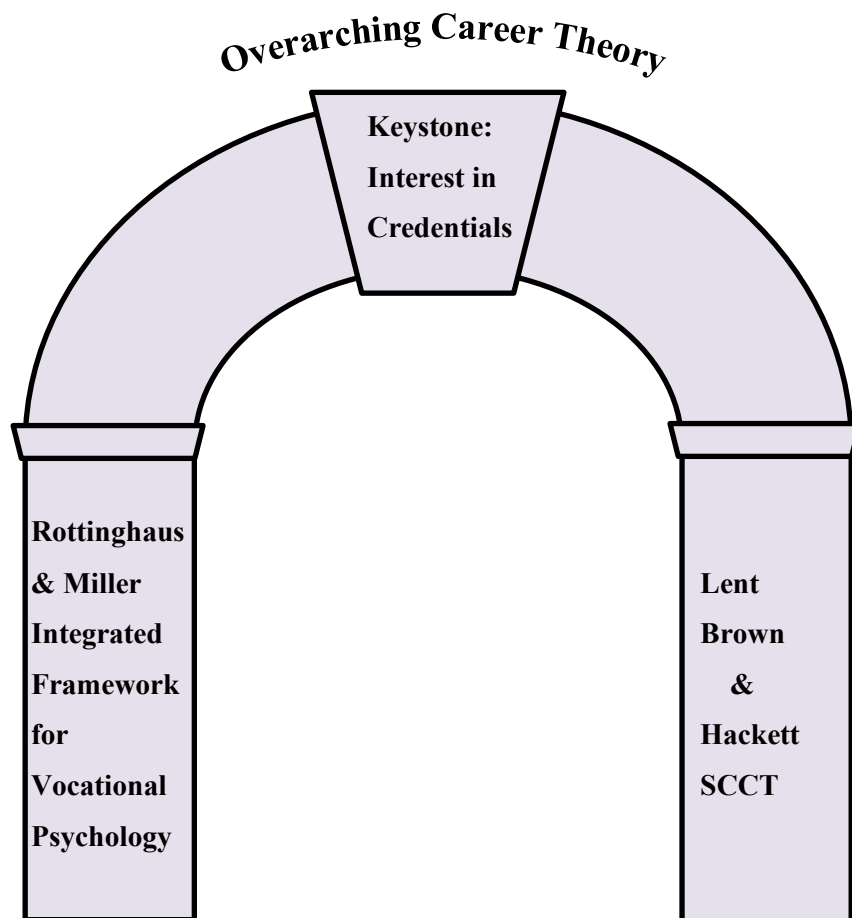


Figure 1. Schematic Diagram Illustrating Theoretical Constructs.

The use of the arch was inspired by the work of (Super, 1990). Super had an illustrious career during the second half of the twentieth century and contributed significantly to the area of career development. In 1980 he conceived the life-career rainbow model (Super, 1980). In 1990 he refined his model of symbolic representation and produced the Archway model (Super, 1990). Of particular relevance in this is the keystone. In constructing an arch, the keystone is the central piece which locks the other stones in position. The imagery is powerful. For Super the keystone represented the centre piece, the Self. It highlighted the central thrust of the discussion: the career development of the individual. In my case it is interest in credentials.

It needs to be stated at the outset that the use of two named pillars in the diagram does not mean that each theoretical component is of equal status. It is simply an overview diagram to show the theoretical constructs used in this project.

The Rottinghaus and Miller (2013) model is a comprehensive big picture model and as such needs to be dealt with first. Social Cognitive Career Theory (SCCT) (Lent et al., 1994) has a much more specific focus. Thus, while they differ in magnitude they are shown as equal size pillars in my model to show how they both support the keystone of discussion about credentials.

2.2 Integrative Framework of Career

This project uses career development theory to answer the research question. The integrative framework for career theory developed by Rottinghaus and Miller (2013) presents three domains that may conceptually and empirically encapsulate career: dispositional traits, characteristic adaptations, and life narratives, the first two of which are focussed on in this research project. A diagrammatic representation of their model is shown on the next page in Figure 2

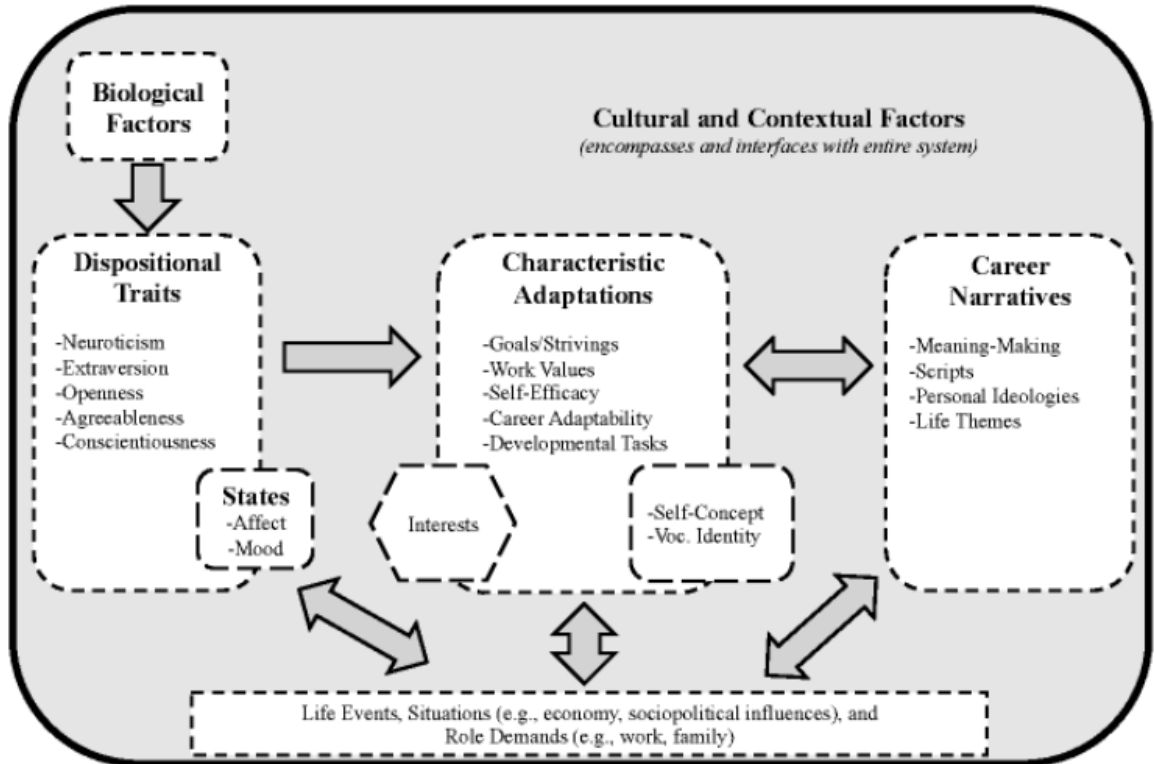


Figure 2. An integrated framework for vocational psychology.

Note. Reproduced from Rottinghaus, P. J., & Miller, A. D. (2013).

Convergence of personality frameworks within vocational psychology. In W. B. Walsh, M. L. Savickas & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research, and practice* (4th ed., pp. 105-131). New York, NY: Routledge.

2.2.1 Dispositional traits. The first domain, dispositional traits, is shown in the left-hand column of the Rottinghaus and Miller (2013) model and can be defined as “broad, non-conditional, decontextualized, generally linear and bipolar, and implicitly comparative dimensions of human individuality” such as friendliness and dominance. The five dispositional traits are neuroticism, extraversion, openness, agreeableness, and conscientiousness. Mount, Barrick, Scullen, and Rounds (2005) argue that generally speaking, there is widespread agreement about the five personality dimensions and their content.

2.2.2 Characteristic adaptations. Characteristic adaptations are the second domain and shown in the centre of the (Rottinghaus & Miller, 2013) model. They can be defined as dynamic mechanisms through which career development occurs including motives, goals, plans, strategies, values, virtues, schemas, self-images,

mental representations of significant others, and developmental tasks (Buckley, Wiese, & Harvey, 1998; McAdams & Pals, 2006). According to McCrae and Costa people's basic tendencies remain stable across the life course whereas characteristic adaptations can undergo considerable change (Tashakkori & Teddlie, 1998), thus reiterating the point made above that characteristic adaptations are dynamic.

2.2.3 Career narrative. Career narratives constitute the third domain of the Rottinghaus and Miller (2013) model and is shown in the right-hand column of the diagram. Career narrative is an important facet of career counselling; however, it is not the focus of this research and therefore does not require further attention.

2.3 Social Cognitive Career Theory (SCCT)

Within the overarching integrative framework of career, the current research uses social cognitive career theory (SCCT) developed by Lent, Brown and Hackett (1994). The SCCT framework was an attempt to complement and build conceptual linkages with existing career development theories and emphasised the dynamic processes that shaped and transformed occupational and academic interests, choices and performances (Bailey, 2008). At this juncture it is helpful to consider a diagrammatic representation of Lent, Brown and Hackett's (1994) SCCT model to enable the reader to visualise how the identified elements fit together (see next page).

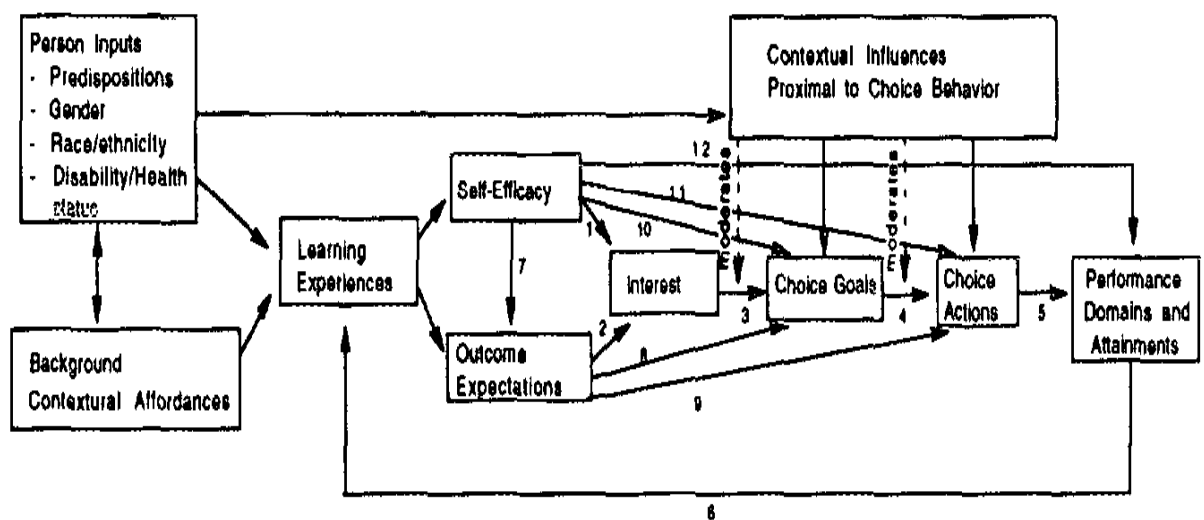


Figure 3. Model of social cognitive influences on career choice behaviour. From Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice and performance, *Journal of Vocational Behaviour*, 45, p. 93.

2.3.1 Person inputs. Unpacking the SCCT model of necessity starts with the person. It is the individual who makes decisions about career in the light of a myriad of other factors. Moreover, it is the individual who is the subject of questionable ethical choices which is the essence of this study. Lent, Brown and Hackett (1994) identify a number of areas of person inputs: predispositions which would include special abilities such as intelligence, musical ability, artistic ability and muscular coordination; gender; race/ethnicity; disability/health status. Each of these contributes to the perspective that the individual brings to the development of career interests and choices. Gender and race ethnicity, for example, shape experiences which influence self-efficacy and outcome expectations.

2.3.2 Background contextual affordances. In addition to the areas of person inputs there are background environmental influences in terms of conditions and events. D. Phillips (1990) identified 11 including socioeconomic status, the education system experienced, the rate of return for various occupations, technological developments and physical events. Consider, for example, the impact a devastating earthquake might have on an individual's career choices. There might be an inability to now attend a tertiary institution as a result of the physical damage caused by the earthquake, an objective impact. There might also be a subjective interpretation, for example a desire to work, say in the field of medicine, after the traumatic experience. Essentially there is a myriad of distal influences.

2.3.3 Learning experiences. Guba (1990) argued that an individual's beliefs about personal capabilities could be acquired and modified via four primary informational sources or types of learning experiences: personal accomplishments, vicarious learning, social persuasion, and physiological and affective states. Schaub and Tokar (2005) noted that according to SCCT learning experiences are experiential sources of self-efficacy and outcome expectations that are shaped by person inputs and background contextual affordances. These links are clearly shown by arrows in the diagram above.

2.3.4 Self-efficacy. A key concept in SCCT is self-efficacy. Emanating from the work of (Bandura, 1986) it can be defined as people's evaluation of their abilities to plan and institute action(s) which will lead to successful performance and goal attainment (Lent et al., 1994; Sale & Brazil, 2004). Whilst the developers of SCCT have drawn on both the work of Bandura (1986) with respect to triadic reciprocity and Krumboltz (1992) with respect to learning theory it is particularly

with the latter that an important distinction regarding self-efficacy is made (Dzurec & Abraham, 1993). Within social cognitive theory self-efficacy mechanisms are posited to be major mediators of choice and development whereas within Krumboltz's position self-efficacy is assigned a relatively minor role (Lent et al., 1994). Self-efficacy, then, involves judgement and is significant in SCCT. It should also be noted that self-efficacy is not a unitary or global trait like self-esteem but is conceived as a "dynamic set of self-beliefs that are linked to particular performance domains and activities" (Guba, 1990, p. 104).

In the research project the role of self-efficacy is a central one: if the goal attainment is for career advancement through the acquisition of an advanced tertiary qualification, then how the individual goes about securing the credential is very much of interest. As Rottinghaus, Lindley, Green, and Borgen (2002) observed career aspirations and educational aspirations are closely intertwined in many ways. Moreover, previous research has found self-efficacy to be predictive of academic and career-related choice and performance indices (Multon, Brown, & Lent, 1991; Silla, De Cuyper, Gracia, Peiró, & De Witte, 2009). Schumacher and Gortner (1992a) observed that self-efficacy is based upon actions a person knows can be accomplished as well as an awareness of the consequences for taking or not taking the said actions. Certainly, it can be assumed that the individual makes a judgement on the basis of weighing up pros and cons, but this does not take account of unanticipated consequences which may come to bear on the individual later. Just how much credence can be given to not being bothered by this is an interesting research question and suggests probing of the individual's personality and values is appropriate. That self-efficacy has an important role here is underlined by Lent et al. (1994) who assert that *inter alia* self-efficacy is believed to "determine one's choice of activities and environment" (p.83). "Determine" is a strong word. The links to outcome expectations and goals are clearly shown in the diagrammatic form of the model.

Given that self-efficacy is a person's judgement about ability to pursue action(s) it follows that there can be different types of self-efficacy depending on the kind of action being pursued. For example, (Bröder, 1998) discussed the role of individuals' beliefs about their abilities to competently use computers: a state that they referred to as "computer self-efficacy". In the same vein it is argued here that there are two relevant types of self-efficacy: an "efficacy for study of post-graduate

qualifications” and an “efficacy for cheating”. The first of these comes under the umbrella of task-specific self-efficacy and coping efficacy, referring to belief in the ability to perform the specific tasks required to succeed in a given domain, in this case academic performance, and beliefs in one’s ability to negotiate particular domain-specific obstacles, such as personal motivation to study (see Fugate & Kinicki, 2008). The second, efficacy for cheating, is related to coping efficacy, together with a behavioural disposition to achieve the goal of a credential by an alternative means to academic study. Thus, it is further argued that the two efficacies can be twinned; that in the study at hand they are dimensions which describe questionable behaviour by individuals leading to the existence and operation of fake institutions.

The research therefore included an exploration of measures such as personal efficacy scales. One in particular resonates strongly: Paulhus (1983) developed the Personal Efficacy Scale of his Spheres of Control instrument to assess the level of control people feel they exert over the ability to achieve their objectives. His findings indicated that an intuitive relationship might exist between self-perceived personal efficacy and the propensity to cheat (Umaru, 2013). Clearly this is of interest to researchers, educational administrators and students alike. Allied to this are instruments like the Windsor Deception Checklist (Pascual-Leone, Singh, & Scoboria, 2010). Self-efficacy is a key to this research as it involves beliefs concerning capabilities. It is hypothesised that one element which can drive the pursuit of questionable credentials is a belief in one’s inadequacy to succeed in the pathway of academic study. But there might also be a propensity to cheat per se and hence the twinned efficacy approach is not only justifiable but is also requisite.

2.3.5 Outcome expectations. Whilst self-efficacy is concerned with beliefs about capabilities, outcome expectations are beliefs about the consequences (or outcomes) of performing particular behaviours (Guba, 1990). This is important in the research project as the anticipation of consequences can be viewed as a measure of intentionality: did the individual weigh up pros and cons, or was the individual unconcerned, or was it simply a case of overlooking potential outcomes? If a person were to calculate the possible effects of a particular course of action and then implemented it the researcher can surmise that the action was deliberate. Lent et al. (1994) drew on the work of Bandura (1986) in identifying several different types of outcomes: anticipated social (such as approval), physical (such as monetary benefit)

and self-evaluative (such as self-satisfaction). Acquisition of a credential might deliver all of these: status, promotion to a higher paying job, and an increased sense of self-worth. Outcome expectations, then, may be significant motivators for a particular course of action. The extent to which this might drive an individual to seek out a fake qualification is a particular focus here.

2.3.6 Interests. Interests are central to key career decision-making instruments and models including the Strong Interest Inventory (Aronson & Mettee, 1968; Campbell & Borgen, 1999; Donnay, 1997), Holland's RIASEC model (Hooper, Coughlan, & Mullen, 2008), and SCCT (Lent et al., 1994). They may be defined as people's pattern of likes, dislikes, and indifferences regarding different activities. The interest model predicts that an individual's occupational or academic interests are reflective of self-efficacy beliefs and outcome expectations (Lent et al., 1994); that individuals would be likely to develop interest in activities with anticipated positive outcomes. Ajzen (1987) argued that the dynamic interaction among self-efficacy, outcome expectations and interest is what leads to the formation of goals and intentions. Such intentions might include the idea of pursuing a fake qualification.

2.3.7 Choice goals. Stemming from Bandura's work (1986) Fugate and Kinicki (2008) described goals as the intention to engage in a particular activity or to produce a particular outcome and argued that two primary types of goals pertained to SCCT: choice-content goals and performance goals. By choice-content goals they meant those referring to the type of activity domain a person wished to pursue. Of particular concern to this researcher is the nature of the choice: the word implies selection from among alternatives. Consider the choice an individual exercises to acquire a degree. The particular kind of degree to which the individual aspires is a choice, for example in business or law. The goal to acquire it is in Lent and Brown's terms to produce a particular outcome. In marketing terms this is choice of product. But of particular concern here is from where and how the degree is acquired. This is a choice of process: the individual decides whether to study at a particular institution for a set period of time, or in the case of fake institutions to purchase one in order to complete the acquisition in a very limited time frame. The exercise of this choice is integrally linked with the individual's ethical disposition. An individual might consider it quite acceptable to purchase a fake degree since what is perceived as important is the potential utility of the end product and not the means of acquisition.

2.3.8 Choice actions. Whilst choice goals are the expression of intention, choice action is simply putting the choice decision into practice. Thus, having considered options, the individual selects a course of action and chooses to purchase a fake degree, for example. The process of purchase is the choice action and is the natural outcome of fulfilling the choice goal, clearly highly relevant to the current research.

2.3.9 Proximal contextual influences. Contextual factors help shape the learning experiences that fuel personal interests and choices (Lent et al., 1994). The SCCT model divided contextual influences into two groups based on their relative proximity to career choice points. These can be divided into two types: those which may have a more direct influence on the choice process such as financial support for selecting a particular option, and moderators of interest-choice relations such as job availability and economic conditions (D. Phillips, 1990). This has significance for the current research. An individual for whom financial support is not forthcoming, or one who is confronted with the need for a particular qualification in order to avail of a limited job opportunity, might be prone to exploring the relatively inexpensive fast track option offered by an illegitimate institution.

2.3.10 Performance domains and attainments. The SCCT's model of performance is concerned with the level or quality of people's accomplishments, and the persistence of their behaviour in career-related pursuits (Eysenck, 2013). Both these facets are of interest to this researcher. Acquisition of a tertiary credential is an accomplishment for the individual, the quality of which is recorded in the academic transcript. That this is important is evidenced by the fact that fake institutions usually include a devised "transcript" in the graduation package. Persistence of behaviour implies a consistency in the individual's value orientation and decision-making and thus provides insight into whether or not a particular individual might use a shortcut to achieve the goal of an academic credential. The SCCT model has a feedback loop from performance domains and attainment to learning outcomes (see the diagram on page 12). This suggests that if an initial probe is successful the individual might learn that such a course of action can deliver the required outcome, thus reinforcing the notion that utilising a fake institution is an "acceptable" pathway.

The preceding discussion was concerned with the linkages between interests, choices and performances. These factors pertain to decision-making which can include the outcome of acquisition of fake credentials. But as Larson, Rottinghaus,

and Borgen (2002) noted clearly there is also a link between interests and personality. This is a key dimension in the current research. In particular this researcher is interested in the question as to whether there any defining characteristics evident in the types of individuals who avail themselves of the shortcut option of credential purchase.

2.4 Big Five/Big Six Factor Theory of Personality

In this subsection I initially explicate the most common model of the so-called Big Five factor theory. Then I will include a description of the sixth factor that is relevant to the current research. The Big Five organizes broad individual differences in social and emotional life into “five factor-analytically-derived categories” (McAdams & Pals, 2006). According to consensus following Norman’s (1963) enunciation of terminology (McCrae & John, 1992), the Big Five can be labelled as extraversion, agreeableness, conscientiousness, neuroticism, and openness which equate to the dispositional traits in the (Rottinghaus & Miller, 2013) model discussed above. But this model has a shortcoming for the purposes of the current research for it does not specifically address the question of values. The closest it comes to doing this is including values as one of the characteristics in the discussion of openness (McCrae & John, 1992). Similarly, the element of values is included in the list of characteristic adaptations (McAdams & Pals, 2006) but has a low profile in the scheme of things. Given that the exercise of a values stance is a key to whether an individual would follow a pathway involving the acquisition of a fake credential it is necessary to add another dimension to the Big Five Factor model. The solution for this researcher is to also draw on the HEXACO model (Ashton & Lee, 2008a, 2008b) leading to an exploration of the Big Six through the Mini IPIP6 (Ashton, Lee, & Goldberg, 2007a; Milojev, Osborne, Greaves, Barlow, & Sibley, 2013; Sibley et al., 2011) and a testing for the H factor through the Dark Triad (Jonason & Webster, 2010; R. M. Ryan & Deci, 2017) discussed in Chapter 5.

2.4.1 Neuroticism. Neuroticism is the trait where an individual displays behaviours such as anxiety, self-pitying, touchiness and tenseness. For example, an attitude of self-defeat can be built up through experiences of negative reinforcement. (McCrae & John, 1992) listed a number of factor definers, describing these individuals as being thin-skinned, having brittle ego defences and being self-defeating. They noted such people are basically anxious, have a concern with adequacy, and display fluctuating moods. Whether a person displaying anxiety, and a

concern about personal adequacy is more likely to seek out a fake qualification to bolster self-image, is of interest in the current research.

2.4.2 Extraversion. The extravert individual can be described as being active, assertive, energetic, enthusiastic, outgoing, and talkative. McCrae and John (1992) include gregariousness and having a rapid personal tempo as factor definers. To determine the extent of an individual's extraversion questionnaire scales measuring characteristics such as warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotional state, can be used. An extravert might display a more gung-ho, cavalier attitude—as in the excitement seeking scale—and undertake actions without due contemplation of consequences. If so, is this type of person more prone to the uptake of a fake credential?

2.4.3 Openness. This factor covers a broad spectrum of elements incorporating descriptors such as artistic, curious and imaginative. Mount et al. (2005) presented a useful focus in their terminology *openness to experience*: that is openness is where an individual makes adjustments to previous dispositions on the basis of re-assessing existing or acquisition of new knowledge. McCrae and John (1992) noted the factor definers as individuals with a wide range of interests, who were introspective, who had unusual thought processes, who valued intellectual matters, who made judgements in unconventional terms, and who were aesthetically reactive. This view certainly reinforces the claim above regarding the breadth of the spectrum. Such characteristics can be determined on scales that measure elements such as fantasy, aesthetics, feelings, actions, ideas, and values (McCrae & John, 1992). Given that openness incorporates making adjustments to previous dispositions the question arises whether a change in circumstances might lead to a new action. For example, would an individual who experiences a change in employment circumstances become interested in the speedy acquisition of a credential, albeit fake, in an effort to shore up an employability situation? This question is of particular interest in the current research.

2.4.4 Agreeableness. The individual who is agreeable can be described as having a range of appealing characteristics such as appreciativeness, forgiveness, and, kindness. These kinds of traits translate into a number of factor definers: being sceptical, not critical; behaving in a given way; being sympathetic and considerate; being warm and compassionate; and being basically trustful. The degree to which individuals display these, altruism and compliance is significant (McCrae & John,

1992). The question arises as to whether being basically trustful means that an individual might be more gullible to the claims of fake academic providers and therefore more prone to the uptake of a fake credential.

2.4.5 Conscientiousness. Conscientiousness is a descriptor of an individual's attitude to undertaking tasks. McAdams (2008) argues that it is too narrow a term for one of the dispositional traits as it omits a central component that Peabody and Goldberg (1989) called *favourable impulse control*. McAdams (2008) adds the terms *control* and *constraint* to this dispositional trait but there is general acceptance of the terminology as used by Rottinghaus and Miller (2013), in the model presented in Figure 2. The conscientious individual is perceived to be efficient, organized, planful, reliable, responsible, and thorough (McCrae & John, 1992). Factor definers include exuding dependability, being productive with a high level of aspiration, not being self-indulgent and able to delay gratification, and behaving ethically which can be measured on scales of competence, order, dutifulness, achievement striving, self-discipline, and deliberation (McCrae & John, 1992) This research project concerns itself with the question as to whether an individual displaying a high degree of conscientiousness would be less likely to seek out a fake qualification.

2.4.6 Honesty/Humility. Honesty/Humility is the additional factor to the Big Five in developing a more comprehensive theory of personality. The new approach contains the additional factor Honesty/Humility (H), and retains the original factors, given as, Emotionality (E)—the equivalent to Neuroticism in OCEAN, eXtraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O); thus giving the six dimensional structure known as HEXACO (Ashton & Lee, 2007). The six factor HEXACO structure has been shown in cross-language lexical studies of personality structure to be more replicable than the Big Five (Ashton & Lee, 2007). This is significant, for as McKay and Tokar (2012) noted, the finding seems to contradict the notion that personality consists of only five replicable factors, and suggests that HEXACO is a viable alternative to the five factor model. McKay and Tokar (2012) also observed that the HEXACO model has demonstrated a predictive advantage over the Big Five, citing studies such as those of Ashton and Lee (2008a) to support their claim. The additional element is certainly relevant to the current study.

The H factor uses defining adjectives (translated across lexical studies) such as honest, faithful/loyal and unassuming in contrast to sly, pretentious, hypocritical, boastful and pompous. Its factor definers are sincerity, fairness, greed-avoidance, and modesty (Ashton & Lee, 2007). They further noted that the benefits of high levels of the elementary gains from cooperation whereas the cost of high levels is the loss of potential gains that would result from the exploitation of others (Ashton & Lee, 2007, p. 156). Two points here are relevant to the current research. First the use of a fake credential to enhance the prospects of an individual is detrimental to the standing of others and in that sense is exploitative of colleagues who may be following the pathway of part-time study to gain a credential. Secondly the employing organisation is losing out on the knowledge capital that accrues through the employment of well-educated and legitimately qualified personnel. The issue of employability, in fact, merits specific attention in the current research.

Consideration of the models presented earlier in this chapter show employability, as per the definition above, to be a considerably significant latent concept and this needs fleshing out.

Figure 1 presented my conceptual model: that the keystone of interest in credentials.

2.5 Employability and Career Development

The concept of employability is central to the thrust of this research. In Chapter 1 the term was defined as “a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy” (Yorke, 2006). Chapter 1 then flagged a marketing perspective on academic credentialism: what is it that consumers expect from a degree? It was noted that while job prospects were a key component this was not exclusive. Other dimensions included social status, financial freedom and lifestyle (Azmat et al., 2013). Clearly by virtue of the above definition employability is embedded in the interest in credentialism. This is in the context of overarching career theory so ably raised by Super’s pioneering work in model development: the rainbow in 1980, the archway in 1990, and the reflection toward a comprehensive theory of career development two years later (Super, 1980, 1990, 1992). As noted earlier in this chapter the Rottinghaus and Miller (2013) model is a comprehensive big picture model. At this juncture I am concerned with the elements linked with Characteristic Adaptations. Each of the subsets (goals/strivings, work values, self-

efficacy, career adaptability and developmental tasks) can be linked with an individual's perception of employability. Moreover, the two associated "boxes" (literally hexagon and stadium in their diagrammatic representation) interests and self-concept/vocational identity have a clear association with employability. Interests is going to define the areas in which an individual looks for engagement. Self-concept/vocational identity is a statement about the individual's disposition which can impact on the search for work. Fugate et al. (2004) specifically explored a dispositional approach to employability. The link between the individual and employability is really about self-perception: does an individual feel able to engage with the world of work. Much work has already been undertaken in this area. While the big picture is captured in the interdisciplinary framework which outlines essential elements to the personality system and presenting a holistic view (Rottinghaus & Miller, 2013) there are valuable insights to be gained from researchers who have drilled down. (Clarke & Patrickson, 2008) gave some valuable insights in their new covenant of employability. Of particular noteworthiness are the first three and the fifth of their assumptions for they are indicative of the direction career development is taking and is related to the thrust of my research. The stated assumptions are as follows:

1. Responsibility for career and employability primarily rests with the individual (p. 124).
2. Individuals have the desire to manage their own career and employability (p. 127).
3. Individuals have the capacity to manage their own careers and employability (p. 128).
5. Employability is an antecedent to employment (p. 130).

Note assumption 4 is redundant in the context here as it is to do specifically with the role of the employer.

The emphasis has clearly moved to the individual, even in definitional terms (Harvey, 2000; Vanhercke, De Cuyper, Peeters, & De Witte, 2014). The key for graduates in particular is how this sits with their self- concepts (Ashton & Lee, 2009; Rothwell, Jewell, & Hardie, 2009; Van den Broeck, Vansteenkiste, De Witte,

Soenens, & Lens, 2010), and the value positions they then adopt in pursuit of employability. This clearly has resonance with the current research.

Social Cognitive Career Theory (SCCT) (Lent et al., 1994) shown in the right-hand pillar of my model in Figure 1 has a much more specific focus than the Rottinghaus and Miller (2013) model (see figures 2 and 3 and associated discussion). The key is in the centre of the diagram: self-efficacy: what Bandura (1986) defined as one's belief in one's ability to succeed in specific situations or accomplish a task. The focus is on the individual and self-efficacy can play a major role in the way the individual approaches goals, tasks and challenges. Tie this in with the box immediately below (namely outcome expectations) and there is a strong link to the points made in the discussion above. The SCCT model (Lent et al., 1994) in its diagrammatic representation (see Figure 3) has arrows leading from both these boxes to a box labelled interests and subsequent arrow links to the boxes choice goals, choice actions, and performance domains and attainments. Following the logic of this flow is the point that the individual makes career decisions which affect career development and employability. The overlay my research adds to this process is the values orientation impinging on those decisions and finally whether an ethical stance or morality is, or should be, of concern. Clearly the concept of employability is embedded in the models guiding this research.

2.6 Self Determination Theory (SDT)

The previous discussion has clearly placed a significant emphasis on the role of the individual. As such it is pertinent to examine some of the theoretical constructs related to this. Indeed, as the research proceeded one outcome of Study 1 was that the questionnaire to be used in Study 2 should include items addressing the individual's basic psychological needs. This is discussed in Chapters 4 and 5. There is a relevant theoretical construct here. Self Determination Theory (SDT) provides a framework for understanding the factors that promote motivation and healthy psychological and behavioural functioning. It is considered a macro theory (Deci & Ryan, 2002; R. M. Ryan & La Guardia, 2000) which specifies the existence of three basic psychological needs: autonomy, competence and relatedness (Johnston & Finney, 2010). SDT comprises a suite of mini theories: cognitive evaluation theory (CET), organismic integration theory (OIT), causality orientations theory (COT),

basic psychological needs theory (BPNT), goal contents theory (GCT), and relationship motivation theory (RMT) which evolved over time (R. M. Ryan & Deci, 2017). Of particular interest here is BPNT. Ryan and Deci noted “as SDT progressed, it became increasingly clear that the three basic need satisfactions that we had identified as facilitating intrinsic and well-internalized motivations also affected psychological health and well-being. Accordingly, we developed a fourth mini-theory, namely *basic psychological needs theory* (BPNT), to detail how the dynamics of basic needs affect well-being and vitality. Especially interesting in BPNT is how need support promotes and need thwarting undermines healthy functioning at all levels of human development and across cultural backdrops and settings” (p.21).

Details of BPNT are contained in Chapter 10 of their book. They note in particular that need frustration, typically due to the thwarting of these basic needs, is associated with greater ill-being and more impoverished functioning (R. M. Ryan & Deci, 2017, p. 242). Also, of interest is their proposition that needs and values are not always congruent. It was within the context of BPNT that B. Chen et al. (2015) developed the Basic Psychological Needs Satisfaction and Frustration – General Measure scale. A basic needs satisfaction scale already existed. Not only was there a general measure (Johnston & Finney, 2010) but there existed variations with respect to specific domains: for example the W-BNS for work (Van den Broeck et al., 2010), the BNSSS for sport (Ng, Lonsdale, & Hodge, 2011), and PNSE for exercise (Wilson, Rogers, Rodgers, & Wild, 2006). The addition of a scale which included frustration element was an important one which has particular relevance to my research: frustrated individuals might well be motivated to take shortcuts to achieve their objectives. This was one of the research question dimensions arising from Study 1.

CHAPTER 3: METHODOLOGY

3.0 Methodology and the Research Parameters

Methodology refers to the general approach the researcher takes in carrying out the research process (Finn & Frone, 2004) as distinct from method which is a technique or tool for data collection or analysis (Braun & Clarke, 2013). Methodology therefore includes the philosophical underpinnings of the research and constitutes part of the research paradigm: the conceptual framework of the researcher. This chapter notes the concepts of ontology, epistemology, paradigms and postpositivism before addressing personal motivations and outlining the two studies which constitute the current research project and discussing the concomitant ethical considerations.

3.1 Ontology

Researchers as human beings are influenced by a number of factors in their pursuits. As Scotland (2012) notes researchers need to take a position regarding their perceptions of how things really are and how things really work. This is the essence of ontology. Ontology may be defined as the nature of the social world we study (Greene & Hall, 2010). Hall (2003) argues that ontology is ultimately crucial to methodology because the appropriateness of a particular set of methods for a given problem turns on assumptions about the nature of the causal relations they are meant to discover. This is highly applicable here where it is assumed that the products offered by tertiary institutions (or those claimants of this status) are used by individuals to further their own ends; both personal goals and business-oriented ones such as enhanced employability. I see the nature of the social world as one in which individuals generally strive to advance themselves. This pursuit of personal aggrandisement has implications relevant to the research I am undertaking.

3.2 Epistemology

Epistemology is concerned with ways of knowing and learning about the social world (Snape & Spencer, 2003). Scotland (2012) cites (Guba & Lincoln, 1994) as explaining that epistemology asks the question, what is the nature of the relationship between the would-be knower and what can be known? This has relevance to the current research: do fake institutions obfuscate their real identities? Do their clients knowingly pursue a fake qualification? Or are they hoodwinked into thinking that the credential they purchase is legitimate? As Scotland (2012) notes

epistemological assumptions are concerned with how knowledge can be created, acquired and communicated. Epistemology therefore requires careful consideration of an appropriate paradigm for this research.

3.3 Paradigms

A paradigm is a term used to describe an approach to research providing a unifying framework of understandings of knowledge, truth, values and the nature of being (Ashton & Lee, 2009). As such it is inclusive of both ontology and epistemology. Scotland (2012) argues that they are two of the four components of the concept of paradigm: the other two being the methodology adopted and the method or tools applied for data collection and analysis. As explained below this research project is best cited in the postpositive arena.

3.4 Postpositivism

The selected paradigm is postpositivism. Postpositivism is a conceptual derivation of positivism therefore it is useful to examine the root term first. Positivism (which is allied to scientific method) is defined by (Guest, MacQueen, & Namey, 2012) as “an approach to research that is based on the fundamental ideas that (a) interpretations should be derived directly from the data observed and (b) data collection and analysis methods should, in some way, be systematic and transparent” (p.281). As Fox (2008) notes “positivism is a position in the philosophy of science that emphasises the importance of observation for the growth of knowledge, and thus considers the measurement of phenomena as central to the development of understanding” (p.660). Whilst the approach has been widely applied in the natural sciences it rejects non-observable sources of knowledge as unscientific. Fox (2008) takes issue with this, articulating several criticisms of the approach: the ruling out of those understandings of the world derived from human experiences, the attempts to establish generalities regardless of context, the problem of describing a single truth concerning the nature of the social world, and the denial of any role for reflexivity among researchers. Such criticisms were not isolated; in fact Keat (1980) was effusive in stating criticisms of positivism abound and claiming it has become “near obligatory” for self-respecting social scientists to distance themselves from it.

Postpositivism thus arose out of dissatisfaction with some aspects of the positivist stance (Ponterotto, 2005); in particular the positivist acceptance of objectivity (what I would term a purist perspective) whereas postpositivism takes into account the flawed nature of human beings (what I would term a reality

perspective). Yet it would be wrong to assume it was simply reactionary. It is salutary to consider Adam's perspective that it is neither antipositivism nor a continuation of positivism by other means. Rather "its essence is to transcend and upgrade positivism, not the rejection of all positivist ideas and postulates of the scientific method" (Adam, 2014, p.5). Postpositivism really emphasises a proper understanding of the directions and perspectives of any research study from multi-dimensions and multi-methods. (Panhwar, Ansari, & Shah, 2017). O'Leary (2004) claimed that postpositivists see the world as ambiguous, variable and multiple in its realities.

During the nineties the postpositivist paradigm was considered as that which underpinned much of contemporary empirical research (Dzurec & Abraham, 1993; Ford-Gilboe, Campbell, & Berman, 1995; D. Phillips, 1990; Schumacher & Gortner, 1992b) and it continues to have significant import into the twenty-first century. Certainly, as it is discussed below, SCCT continues to sit comfortably within it. (Clark, 1998) argued that postpositive research need not exclude either qualitative data or "truths" found outside quantitative method: indeed, acceptance of this is crucial to rejecting the strict dichotomy often drawn between the qualitative and quantitative paradigms. I strongly endorse this interpretation. Postpositivism is a most suitable conceptual framework to apply to a qualitative approach of semi-structured interviews in Study 1 in addition to the quantitative approach adopted for Study 2. Whilst conceding that its predominant usage is with quantitative methods, the use of the postpositivist paradigm for qualitative methods is recognised by Mertens (2005).

Postpositivism can well be described as a theoretical position that acknowledges that researchers are influenced by their contexts (Braun & Clarke, 2013). The characteristics of postpositive research have been usefully described by (A. B. Ryan, 2006): research is broad rather than specialised meaning that lots of different things qualify as research such as the utilisation of credentials from fake universities; theory and practice cannot be kept separate as is evident with the utilisation of SCCT in this research (see below); the researcher's motivations for and commitment to research are central and crucial to the enterprise as spelt out in the section on personal motivations below; and the idea that research is concerned only with correct techniques for collecting and categorising information is now inadequate. This comes back to the point of purpose; that the research project should

inform and alert human resource professionals in particular, of the extent of the problem of fake credentials and assist in the counteraction of such fraudulent activity.

3.5 SCCT and Postpositivism

It was noted in Chapter 2 that the theoretical construct for this research is Social Cognitive Career Theory (SCCT). Because it recognises that a variety of personal, contextual, and behavioural variables play a key role in the development of career interests, abilities, goals and choices (Rogers, Creed, & Searle, 2009), SCCT takes the researcher beyond the empiricism featured in the early years of the discipline of vocational psychology. As (McIlveen, 2009) notes “in recent years there has been notable upheaval in the field of vocational psychology, with it coming under increasing criticism for its ostensible failure to relate to contemporary and rapidly evolving worlds-of-work” (p.64). Kelly (2009) argues that one of the strengths of SCCT is the way in which the individual is considered holistically and in context. Neither of these elements was met in the strait-jacket of quantitative methods. Further to the point Duffy and Dik (2009) argue that SCCT perhaps does the best job of postulating a critical role for external factors and suggest that further empirical research is warranted in this regard. Postpositivism allows for just this. As D. C. Phillips and Burbules (2000) noted postpositivists see knowledge as conjectural.

3.6 Personal Motivations

Axiology (i.e., peoples’ personal values) is a significant determinant in exploring an individual’s motivations. So, too, in this case. I highly value education and the associated recognition of academic effort. It concerns me that the actions of some can devalue the efforts of others by providing opportunities for fake credentialism and the use of such to enhance employment opportunities in particular. To me diploma mills are a blight on legitimate academic endeavour. The driving force behind this research was to understand the behaviour of those involved so that it may be addressed to lessen the incidence.

My previous study of history had included Machiavelli’s *The Prince* (see, for example, an accessible version for modern day readers, Machiavelli, 2008). Machiavelli was a 16th century philosopher, diplomat and political theorist who advised leaders to use tactics of deceit in achieving their goals. The term Machiavellian has become widely used to describe the trait of deceptiveness and has

particular application in the field of psychology where R. M. Ryan and Deci (2017) developed the concept of the Dark Triad. It constitutes three socially aversive traits: narcissism, psychopathy, and Machiavellianism (Deci, Olafsen, & Ryan, 2017). Specifically, Machiavellianism refers to the personality trait which sees individuals so focused on their own interests that they will manipulate, deceive and exploit others to achieve their goals and is highly relevant to this project. Such a disposition may well lead an individual to seek out a fake credential for personal gain, oblivious to any possible impact on others. The Dark Triad has been measured by an instrument labelled the Dirty Dozen (Jonason & Webster, 2010) and constitutes a key instrument in my research (see Study 2 discussed in Chapter 5).

3.7 Overview of Studies 1 and 2

The two studies are inextricably linked: the purpose of Study 1 was to better inform the researcher in the construction of the questionnaire to be used in Study 2. In the language of mixed methods the research project may be readily described as qual → QUAN meaning a small qualitative study is undertaken (in this case sequential exploratory, instrument development) before the quantitative study is commenced, with lower case and upper case used to denote weighting (Bishop, 2015; Byrne & Humble, 2007; Harrison III, 2013). Data from the qualitative research was used to inform the quantitative study. In this case the data obtained from the interviewees in Study 1 was then used to modify the questionnaire developed for Study 2. Postpositivism provided a clear conceptual framework to implement the project.

3.7.1 Study 1. Study 1 involved fifteen semi-structured interviews ranging from 17 to 37 (mean 25.5, median 25) minutes duration with a targeted group of participants. The selected group (8 females and 7 males) ranged in age from late twenties to early forties. All had completed a first degree and had either completed, or were undertaking, a master's coursework degree. Some held more than one. This was considered important. The researcher was seeking participants who already had a tertiary experience: prior tertiary experience was considered important as it meant that participants already had knowledge and experience of at least one tertiary institution and an academic context that could be explored. All participants were in full employment in the early phase of establishing a career and seeking further advancement. Both Caucasians and Asians were represented in the sample, as similarly represented in the Australian population at large. (With a small sample of

only 15 other ethnic groups fell below the qualifying integer. The researcher did not view this as a problem. The purpose of Study 1 was simply to inform the researcher for the questionnaire construction for Study 2: were the study to explore ethnic differences a much larger sample would be required.)

Twenty one guide questions were used so that the conversations focussed on the same topic areas: qualifications held and content of studies, attitude to the awarding institution, experiences that lead to the job held, career goals and plans for further study, challenges faced, awareness of shortcuts and fake institutions, and value stance held regarding academic integrity. The guide questions provided a degree of consistency whilst at the same time allowing for exploration of a topic with the particular participant. Not surprisingly this resulted in significant differences in depth and hence length of the interviews. The interviews were recorded with full knowledge and permission of participants. Recordings were transcribed by a professional agency and a thematic analysis of the transcripts was undertaken by the researcher.

Following the conduct of the interviews the thematic analysis applied followed the steps recommended by Braun and Clarke (2013): transcription, reading and familiarisation of data, coding across the entire dataset, searching for themes, reviewing themes, defining and naming themes, and final analysis (writing). The results were used to make modifications to the set of questions used in Study 2.

3.7.2 Study 2. Study 2 consisted of a multi-part questionnaire on the following: My views about qualifications [a new instrument titled Academic Worth]; About me [Mini IPIP6, Sibley et al. (2001) and Milojev et al. (2013)]; Examinations [the first 11 items of CASEQ, Umaru (2013)]; About my work [Occupational Self Efficacy, Rigotti et al (2008)]; Academic standing and employability [Self-perceived employability, Rothwell et al. (2009)]; My attitudes [Dirty Dozen, Jonason & Webster 2010]; My Life in General [BPNSF, Chen et al. (2015)]; and a Data section covering age, gender, country of origin, country of residence, qualifications held, institution(s), date of graduation; and email contact if permitted by respondent. The questionnaire was administered through the University of Southern Queensland's survey link: <https://surveys.usq.edu.au/index.php/782598?lang=en> on the internet. The questions clearly probed the participants' academic backgrounds and their attitudes towards institutions. Embedded in the questionnaire were questions relating

to their ethical stances, the existence of fake tertiary institutions, and the use of fake credentials.

3.8 Ethical Considerations

The key precept was that whatever the intention of the research the process should be guided by the principle that research should do no harm: participants should not experience a negative outcome (Mills & Gale, 2004).

In the case of Study 1 the intention was to explore whether the framing of the questionnaires could be enhanced through revelation of themes that might otherwise be overlooked by the researcher. The purpose was simply to improve research design. There is no ethical problem in doing this. The standard conventions of obtaining informed consent, confidentiality and anonymity can easily be applied. Participants were asked to sign a Participant Involvement form. In Study 1 because the research involves one on one interviews it was possible to address any issues as they arose in the conversation and reassure a participant as the interview proceeded. Furthermore, only the researcher could know the identity of each participant as subsequent references to each person were coded. The risk of harm was thus extremely low.

In Study 2 responding to the questionnaire was taken as providing consent. Individual identities were protected through the anonymity of questionnaire respondents and hence repercussions from the research are limited to the respondent's own musings from involvement. The risk of harm in such situations is extremely low though it is recognised that it is impossible to declare an absolute zero outcome since participants' predispositions are unknown.

However, with Study 2 there was an ethical issue with the research process with respect to the purpose of the research. The research was delving into the honesty of respondents: would you seek out a fake degree? It is not known whether a respondent would answer this question honestly, so the research design needed to address this in some way. This led to deceiving participants as to the intention of the research.

Although some would hold that the use of deception in research is blatantly wrong (Baumrind, 1985; Ortmann & Hertwig, 1997, 1998) I would argue that in certain circumstances it is not only not wrong, but an essential research strategy: a view shared by some other researchers such as (Bröder, 1998). He argued that deception (the concealing or camouflage of the real purpose of data collection) may

be required to avoid conscious reactivity of participants which would render that data worthless. In the research for this project I hold that such deception is an integral part of gaining an accurate picture of people's motivations and interests in acquiring a fake credential. I would also argue that the possible harm in doing this has been minimised through design features of the research process and is significantly outweighed by the likely benefits of the research.

In determining the use of deception, I applied the Windsor Deception Checklist (Pascual-Leone et al., 2010). In particular I have addressed question 2: "is there any way that this study could be done either without, or with a lesser degree of, deception? (Y/N)". Emphatically I would argue "No". In Study 1 respondents were asked about their reasons for pursuing a particular course of study. The themes that were extracted from Study 1 were investigated in Study 2 in relation to personality and values probed through exploring the concepts in HEXACO (Ashton & Lee, 2008a; McKay & Tokar, 2012) by focusing on the Dark Triad using the instrument, The Dirty Dozen (Jonason & Webster, 2010). The deception involved is the concealment of the real purpose of the investigation. I hold that this is deception though it is significant that other researchers are of the view that deception is of a more serious nature. (Ortmann & Hertwig, 1998) are strident critics of deception; nevertheless, they noted that "not telling participants the purpose of an experiment is not necessarily deception; telling participants things that are not true necessarily is" (p.807). The risk of self-harm of a participant from contemplating true purpose is extremely low; however, the value of investigating the seeking of fake credentials is high and the research is therefore justifiable.

CHAPTER 4: STUDY 1

4.0 Interviews with a Purposeful Sample of Graduates

This chapter reports on Study 1 which involved 15 exploratory semi-structured interviews on the theme of academic qualifications and the participants' tertiary experiences.

4.1 Purpose

The purpose of Study 1 was to explore themes pertaining to career-related decisions and the attractiveness of postgraduate degrees, with the aim of determining if there were some themes that were not already included in the measurements pre-established for Study 2.

4.2 Framework

The framework used in the construction of this chapter is a slightly modified version of that recommended by Morrow (2005). She identified 4 parts: Introduction, Method, Results, and Discussion. Within the Method section there are seven subsections: Philosophical assumptions or paradigm(s) underpinning the research, Research design, Researcher-as-instrument statement, Participants, Sources of data, Data analysis and Standards of trustworthiness. She noted (p.59) that the particular order of the subsections may vary according to preference. Irrespective of this, the framework provides a logical approach to presenting the content relating to Study 1 and is inclusive of all the requisite discussion points to develop a coherent and meaningful chapter.

4.3 Focus and Setting

In this research project I am concerned with identifying psychological factors that lead to an interest in the acquisition of fake qualifications. The study is divided into two parts: a substantial investigation involving the posting of a questionnaire on the internet, and a small auxiliary study (Study 1) framed to inform the researcher of additional questions that might have been omitted with sole reliance on the use of established instruments.

The study is contextualised in Social Cognitive Career Theory (SCCT) (Lent et al., 1994) and additionally the honesty-humility dimension of the HEXACO model developed by Ashton and Lee (2008a). The SCCT model of necessity starts with the person. Additionally, the model that I have developed relates well with previous research: specifically, that of Johnston and Finney (2010) on basic psychological

needs and that of Rothwell et al. (2009) on self-perceived employability of post-graduate students.

As noted in Chapter 1 it is the individual who makes decisions about career and it is the individual who is the subject of questionable ethical choices. Such value stances are usefully explored with qualitative research. As the researcher in Study 1 I am not dealing with quantifiable hard data. Interest is in the richness of information derived from interviews. This is the strategy to ascertain the degree to which, if any, modifications need to be made to the bank of questionnaires that formulate the composition of the survey to be used in Study 2.

4.4 Method

4.4.1 Paradigm underpinning the research. For Study 1 I chose to use qualitative research. Braun and Clarke (2013) argue that qualitative research can be deemed a paradigm in its own right, a perspective which is congruent with the research questions. The focus of this research was to explore what motivates individuals to embark on a pathway of seeking to obtain a so-called academic credential from a degree or diploma mill rather than an accredited university or other recognized post-secondary provider. From the stance of western ethics this is an inappropriate course of action. The overarching, key question is why would an individual do this? This leads to a series of sub-questions such as what does the individual know about her/himself (self-knowledge), what personality traits, if any, affect career decision-making, and how does this relate to employability? Study 1 seeks to probe individuals' perspectives on the above and is clearly exploratory.

4.4.2 Research design. The specific research method used was semi-structured interviews to be analysed by thematic analysis (TA). Thematic analysis is a method for identifying themes and patterns of meaning across a dataset in relation to a research question (Braun & Clarke, 2013). It is well suited to exploratory analysis (Guest et al., 2012) and was therefore ideal for this study as a key element is the extent of awareness and attitude towards fake qualifications.

The process of using thematic analysis as the research tool involves the following seven steps: transcription, familiarisation with the data through reading and re-reading noting down initial ideas, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2006). The application of this tool is evident below.

4.4.3 Researcher as instrument statement. As a career development practitioner, I became interested in the authenticity of institutions after a client expressed an interest to enrol in a dubious institution. Further reading on the subject enlightened me on the extent of fake institutions and the concomitant problems this presents. I developed a keen interest in the area and decided to undertake some serious research into the matter. The pathway for this was to enrol in a research degree. Before undertaking the project, the researcher completed courses in research methods and ethics.

What is/is not ethical is a value stance: the nature of the area and my approach to it is clearly subjective and needs to be declared. It would seem reasonable to take the position of doing no harm is a good thing. Conversely doing harm is a bad thing. I hold the position that the operation of fake institutions is harmful in three ways: it denigrates the standing of legitimate institutions; the use of fake accreditation can be harmful to members of the community especially when an individual holding one acquires a position involving the monitoring/treatment of patients in healthcare areas such as medicine or dentistry; and it can be harmful to the individuals who purchase such degrees particularly if they are unaware of the illegitimacy of such institutions. Applying rigour to the research process was achieved through the academic process of undertaking a literature review, ascertaining an appropriate theoretical model and constant interaction with my supervisor.

4.4.4 Participants. Participation was sought from those exploring entry to a postgraduate coursework degree and graduates of such programs from tertiary education institutions. A purposive sample of 15 graduates provided responses in semi-structured interviews to a series of questions (reproduced below). Of the 15 there were seven males and eight females. They ranged in age from late twenties to early forties, reflecting their interest in career advancement requiring further study. Ethnicity was not a selection criterion but two Asians in the mix was reflective of their number in the Australian population. The Australian Bureau of Statistics noted in the 2016 census that 6.8% of the top 10 immigrant countries were of Asian origin and extrapolating this to second generation Australians the two out of 15 participants is closest to the mark in the small sample for this research (ABS, 2016). Participants were recruited from professional contacts of the researcher and alumni databases. In the latter case a personal approach was made to seek interest from individuals who

were listed as alumni of the same institutions at which the researcher had studied, albeit by distance learning.

4.4.5 Sources of data. Data were gathered by conducting semi-structured interviews with the 15 participants. Interviews were designed to probe the value stance of participants. Guideline questions were used to ensure consistency in the areas discussed with each participant, but at the same time it was important not to be prescriptive in directing responses. Therefore, a semi-structured interview process was appropriate. This was consistent with the philosophical perspective outlined above. Interview questions were formulated to provide participant responses to the specific areas of interest in the study and in particular the value stance adopted by the participant regarding the authenticity of tertiary institutions. I estimated the coverage of the interview guideline questions would take approximately 30 minutes. There were 15 interviews ranging in length from 17 to 37 minutes with a mean length of 25.5 minutes. Interviews were conducted in both Melbourne and Sydney to ensure an appropriate representation of institutions where participants completed their first degree. I also deliberately sought representation of students from a range of institutions: sandstone universities, those established in the second half of the twentieth century, and regional universities.

The question arises of how many qualitative interviews is enough? There is no one answer to this but reference to the literature provides a justification that the number selected was quite adequate for the purpose the study wished to achieve. Guest, Bunce, and Johnson (2006) argued that purposive samples are the most commonly used form of non-probabilistic sampling with their size typically relying on the concept of saturation. They conducted a study involving 60 in-depth interviews and based on that data set determined that saturation occurred within the first 12 interviews. Baker, Edwards, and Doidge (2012) researched the views of 14 experts (prominent methodologists such as Denzin and Flick) and five early career researchers. The consensus answer was that it depends on the methodological and epistemological perspective of the researcher with individual responses ranging from 12 to 60 in the cases where a specific figure was given. Finally I was guided by the perspective of Braun and Clarke (2013) as they have developed the particular model of thematic analysis adopted as a starting point by this researcher. They noted that a sample of between 15 and 30 interviews is common in research. They further espoused in a table (p.48) some numerical guidelines according to the size of the

research project: 6-10 for a small project and 10-20 for a medium sized one. Of course, it depends on the interpretation of what constitutes small and what constitutes medium. Given the range of opinions consulted I opted for 15 (the lower end of the range from some experts and the mid-point of Braun and Clarke's medium size research project).

The data were recorded on a digital recorder and sent to an agency for professional transcription. Care was taken to select an interstate agency with a reputation for quality work in this field. That it was not located in Victoria or New South Wales provided the additional benefit of minimising the unlikely identification of participants. The returned individual transcriptions were emailed to participants for checking content. There were only two responses with comments, one pointing out a minor transcription error requiring correction. Both affirmed the process.

The guideline interview questions for Study 1 were as follows:

- What qualifications do you have that make you feel that you will be successful in your field?
- How did you get into this field? What jobs and experiences led you to this job?
- What are the major qualifications for success in this profession?
- What training would you recommend for someone who wanted to enter this field?
- What courses have proved to be the most valuable to you in your work?
- How do you decide what gets top priority when scheduling your time?
- What are your career goals?
- Do you have plans to continue your education?
- Can you tell me why you were interested in studying at institution X?
- Why did you apply to this university?
- Why do you want to study Y at institution X?
- What do you expect to gain from studying at institution X ? What do you think institution X can offer you?
- How would you describe institution X to someone who is visiting for the first time?
- How did you select institution X?
- What do you do to stay motivated? How do you motivate others?

- What do you see as the major challenges/issues facing students today?
- How do the needs of graduate students differ from undergrads?
- What does it mean to act with integrity?
- What is professionalism to you?
- What is your understanding or knowledge of institutions that offer short-cuts to obtaining degrees?
- Do you think academic integrity matters to students? Why/Why not?

4.4.6 Procedure. Semi-structured interviews ranging from 17 to 37 minutes (mean 25.5, median 25) duration were conducted at a location most suitable to the interviewee. Convenience for the participant was the prime determining factor for interview location. Often this was their workplace when an appropriate room was available. In some instances, a central city location was used: for example in Sydney the University of Newcastle provided a room in their Sydney city campus. Interviewees found this very convenient: not all workplaces were able to provide a suitable venue.

Guide questions were used as prompts. Each interview was concerned with the participants' narratives, exploring why a particular choice of institution was made; and a discussion on the topic of academic integrity: how the participants defined it and whether it was considered of any importance. Following the guideline questions set out above, two examples serve to show how they were used. First:

Facilitator: "Do you think academic integrity matters to students?"

Participant 2: "I think it should..."

Facilitator: "Why do you think it should?"

Second:

Facilitator: "Do you think academic integrity matters to students?"

Participant 14: "No."

Facilitator: "No?"

Participant 14: "No. They don't care."

Facilitator: "Why do you say that?"

The examples show how the actual conversation at this particular time developed from the guidelines leading to an exploration of the participant's values. As noted above the interviews were recorded and professionally transcribed.

4.4.7 Data analysis. Thematic analysis, a method for identifying, analysing, and reporting patterns (themes) within data (Braun & Clarke, 2013), was used to explore participants' responses recorded in the transcriptions. It enabled the thematizing of meanings through minimally organizing and describing the data set. Braun and Clarke argued that through its theoretical freedom, thematic analysis provides a flexible and useful research tool which can potentially provide a rich and detailed, yet complex account of the data. To implement the procedure the researcher needed to work through the following six phases: familiarisation with the data (e.g., reading all transcripts), generating initial codes and for themes (e.g., indicators of dishonest behaviour), reviewing themes (e.g., comparing and contrasting to differentiate the themes), defining and naming themes, and producing the report (Braun & Clarke, 2006).

The list of codes developed from the data is presented in table format in the results section below. Data management was performed manually. Each transcript was read multiple times. On the first reading notations of comments of interest were made in the margin. A list of codes was then generated for each individual transcript. A code is defined as a word or brief phrase that captures the essence of why a particular piece of data might be useful (Braun & Clarke, 2013). The codes were recorded in table format and frequency of occurrence amongst the different participants noted. The ticked boxes of frequency are shown in the table. Patterns in the coded data were then explored and themes developed. A theme is defined as something important about the data in relation to the research question and representing some level of patterned response or meaning within the data set (Braun & Clarke, 2006).

4.5 Standards of Trustworthiness

There are three dimensions which need to be examined here: first whether the research procedure adopted by the researcher is trustworthy; second whether the responses of the interviewees can be deemed honest responses and the data for thematic analysis is an accurate reflection of their beliefs and true positions; and third the mechanics of the process and the resultant transcription quality providing the data for analysis.

On the first of these I have followed the advice of Harrison III (2013), not only grounding my research in a substantive theory base, but also in a paradigm most appropriate to the research (see chapters 2 and 3). Further the choice of thematic

analysis as the tool for data analysis enlists the strategy proposed by Shenton (2004) to ensure trustworthiness in qualitative research projects by employing a specific procedure that has been successfully employed in similar projects in the past. The primary concern of thematic analysis is to present the stories and experiences voiced by study participants as accurately and comprehensively as possible (Guest et al., 2012) which is exactly what I was seeking to do in exploring their study selection options. The study then meets the criterion of trustworthiness in that it captures significant experiences related to the topic (Levitt, Motulsky, Wertz, Morrow, & Ponterotto, 2017).

On the second dimension (although subjective) I would assert that individual participants gave honest responses during the interviews with some comments surprising the researcher (see the Discussion section for a particular example). Such comments challenged the researcher's personal dispositions on the topic. The data can be taken to be a reflection of genuine value stances by the participants lending validity to the research. The fact that there was variation here from the researcher's own standpoint adds credibility to the research: differences were taken on board, not dismissed or ignored. One result emanating from this was the inclusion of the Basic Psychological Need Satisfaction and Frustration Scale – General Measure as part of the questionnaire in Study 2 (B. Chen et al., 2015).

With regard to the third dimension Poland (1995) argued that establishing the trustworthiness of the transcripts would appear to be a fundamental component of rigour in qualitative research. Easton, McComish, and Greenberg (2000) argue that by minimizing potential errors researchers can increase the trustworthiness of the study. One strategy that assists this is verbatim transcription (MacLean, Meyer, & Estable, 2004) and I adopted this. Further, the use of a professional transcription company who were well versed and experienced in this field enhanced the quality of the output compared with the alternative of myself as a novice in this field. Of course, transcribed text can never be completely error free (Sandelowski, 1994): for example, there were instances where pronunciation was unclear on the audio and the transcriber had to best guess what was said. Thus thorough researcher review of the transcripts was essential As (Easton et al., 2000) state it is the researcher who is responsible for establishing the trustworthiness of qualitative research and I took this very seriously. I would argue the resultant transcripts used for analysis were as

accurate reflection as possible of the interviewee's statements and that I avoided the pitfall of defective data collection.

4.6 Results

For completeness and clarity there are five parts to this section: an overview table, a detailed section of code and theme definitions and examples of participant comments, an edited summary chart to provide a clear focus for the reader, an explanation of themes and subthemes with sample extracts from participants' comments, and a schematic diagram with explanation. First the codes extracted from analysis of participant data are presented in the table on the following page.

Table 1

List of Codes and Themes Extracted from Participants' Interview Transcripts

Code	Participant															Theme
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Job requirements	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	JR:E/I
Searching/focus	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	JR:IPM
Marketing/prestige/reputation	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	JR:IPM/ IR
Job market reality	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓			JR:EID
Resources	✓	✓				✓										JR:EID
Ethics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	IR:IPM
External/influences/pressures	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	JR:EID
Motivation		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	LP
Goals		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	JR:E/I
Pathways		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	JR
Flexibility		✓		✓									✓			LP
Awareness of shortcut	✓				✓				✓				✓	✓		IR
Personal characteristics			✓		✓								✓			LP
Location/convenience/accessibility		✓	✓	✓		✓	✓			✓			✓	✓	✓	LP
Brand/marketing communication			✓						✓							JR:EID/ IR
Self-esteem/independence			✓													LP
Pragmatism/problem solving				✓									✓			LP
Interest area				✓	✓					✓			✓		✓	LP
Balance theory/practice				✓	✓					✓	✓		✓			LP
Delivers outcomes/satisfied			✓	✓						✓						IR
Doubt				✓												IR
Familiarity				✓	✓											LP
Routines/structure				✓	✓			✓		✓				✓	✓	LP
Peer support/appeal of like minded				✓	✓					✓						LP
Influence of technology				✓	✓											LP
Practicality				✓	✓		✓	✓				✓	✓			LP
Strategy								✓	✓			✓				LP
Course inadequacies/deficiencies												✓		✓		IR
Life-long learning/professional passion						✓		✓	✓			✓	✓	✓	✓	LP
Role of employer													✓			JR:EID
Misrepresentation issues													✓			IR
Learning style				✓	✓					✓	✓	✓	✓	✓	✓	LP
Opportunity				✓					✓	✓						JR:EID
Professional knowledge/skills			✓		✓			✓	✓		✓	✓		✓	✓	JR:E/I
Demand for qualifications/need				✓					✓				✓	✓		JR:EID
Cost	✓							✓	✓	✓	✓	✓	✓	✓	✓	JR:E/I
Choice/options		✓				✓	✓							✓		LP
Ambiance/learning environment		✓					✓			✓		✓			✓	LP
Personal disposition/self discipline		✓								✓			✓			LP
Control/independence							✓									LP
Gain qualification	✓	✓	✓	✓								✓				JR:E/I
Lack of direction			✓	✓												IR
Culture				✓								✓		✓		LP
Accredited				✓								✓		✓		IR
Time management/prioritising					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	JR:IPM
Balance work/life				✓					✓	✓	✓					JR:IPM
Influence of family/peers						✓						✓				JR:IPM
Role model/modelling						✓										LP
Return on investment						✓		✓	✓	✓			✓	✓		JR:IPM
Brand awareness						✓	✓						✓	✓		IR
Workload						✓								✓		JR:E/I
Stress/struggling						✓			✓		✓			✓		JR:IPM
Apprehension/fear of consequence						✓						✓				JR:EID
Awareness of profession							✓									JR:IPM
Distractors							✓									LP
Sacrifice															✓	JR:IPM

Note. JR = Job relatedness; LP = Learning Propensity; IR = Institutional reputation; EID = External industry demand; IPM = Internal psychic motivation; E/I = External industry demand/Internal psychic motivation

4.7 Explanation of Codes

The interviews provided rich data from which 56 codes were generated. The codes record comments of interest to the researcher from which connections can be made to the theme of the research; thus their derivation is subjective. As Braun and Clarke (2013) note selective coding involves identifying a corpus of instances of the phenomenon that the researcher is interested in. This therefore requires explanation and discussion before generating themes from the data. The number of responses from participants relating to a particular code is evident from Table 1 above but it is important to bear in mind that significant insights came from individual participants and the degree of that significance is not dependent on the number of occurrences. A modified version of the codebook structure developed by Guest et al. (2012) has been used in the presentation of this discussion. Table 1 shows the code label in the first column and code definition will be provided in the discussion below. The codes are data-derived in an inductive way with coding and theming development being directed by the content of the data (Braun, Clarke, & Rance, 2014). Both definition and analytic comment are required. The 56 codes are presented in the order in which they were derived from the coding process. Supportive quotations are presented virtually verbatim in the participant's language: corrections for grammar have not been made. Institutional names have been removed with one exception that is not derogatory but provides clarification for the point being made (see entry on awareness of shortcuts). In a number of instances relevant additional information has been shown in square brackets.

4.7.1 Job requirements. The term job requirement is defined as the perception of the interviewee that a particular aspect was necessary for employment purposes. Such an aspect could be externally driven such as Participant 5's comment "When I went through you had to do a master's to be an exercise physiologist"; or internally driven as Participant 3's comment "I think you need to be well educated; I think you need to be someone who likes to learn" in the context of presenting what was needed to be a teacher. Both participants here were offering insights regarding a "prerequisite" for their particular profession. In the first instance there was an implication that the particular course was credentialed; that a fake qualification would not be acceptable by the profession. In the second instance there is an implication of the integrity of the learner, again suggesting that the purchase of a fake qualification did not measure up to professional standards.

4.7.2 Searching focus. The term searching focus is defined as a realization and activity of the participant in seeking out an appropriate career pathway. Participant 4 said “when I did finish with creative arts as my major I thought, hmm, what can I really do with that kind of thing” and Participant 3 provided evidence of contemplation: “after a few months of thinking and a bit of research” and Participant 9 spelled out a course of action: “so I looked at some of the more local schools”. In each case the participants were consciously thinking about the direction they wanted to go in and were investigating a plan of action to get there. They saw the solution lay in undertaking a postgraduate course in an established institution: there was no evidence of seeking out shortcuts to getting a piece of paper from an unaccredited provider. Participant 11 summed up the approach: “if I can study accounting, I can study a master degree. It will make me get a higher – the higher degree, so it very attract me”. Clearly this [Asian] student saw value in pursuing postgraduate studies.

4.7.3 Marketing/prestige/reputation. The term marketing/prestige/reputation is defined as the internalization by the participant of an institution’s public standing and awareness of the methods used by the particular institution to present itself. (The external facet is a subsequent entry.) Participant 13 had a clearly articulated view: “the other thing I’ll say is that the MODSHRM [Master of Organizational Development and Strategic Human Resource Management] is not recognisable. If I put MODSHRM on my business card, then people go, what’s that? It doesn’t even say, like, master’s in HR or whatever. It’s just a – it’s a weird title that the university concocted, right. But if you put down MBA, that’s recognisable worldwide. So that’s one of the reasons why I chose the MBA is because it’s got that credibility in the US and the UK”. Clearly this participant had a concern with the standing of the degree. The reputation of the university was also of direct concern to some participants: for example Participant 1 said “they were able to position themselves as one of the top universities in Victoria” and again “well I mean the marketing really positioned university X as saying that X graduates are the most desirable. He had clearly internalised this as a key factor in his decision making and such an individual would be highly unlikely to acquire a degree from a fake institution.

4.7.4 Job market reality. The term job market reality is defined as the degree of fit between the course of study and employment: positions available in the

job market. In discussing this Participant 10 observed “for exercise physiology it would have to be the clinical – the Masters of Clinical Exercise Physiology. Without that you’re limited in terms of accreditation, for one, and also you’re limited in terms of your experience and what you can offer”. Participant 10 is demonstrating awareness of professional requirements and by virtue of the specific nature of his profession, also of the institution which can deliver the specific outcome. He also notes the importance of practical experience and would thus not be attracted to a fake institution which just delivered a piece of paper. A similar stance was taken by Participant 8 (a chiropractor): “it gave me a better understanding of – you think about things more” and Participant 6 (a teacher): “everyone in the industry for Indonesian says if you want to specialise in Asia you go to X. I quit my job I loved for 15 years, packed up and moved”. I contend that neither of these would find the piece of paper from a fake institution of any value either.

4.7.5 Resources. The term resources is defined as the requisites needed by the student to be able to engage in postgraduate study: essentially money and time. Participant 6 was very conscious of this: “the hardest thing is being able to support yourself while you’re studying. I am older now. My tastes in life aren’t what they were when I was 18 and 19. That’s quite difficult. I don’t know, I’ve got some money saved up but I’m lucky – that’s why you do need to work. You have to work”. This was reiterated by Participant 2: “working late nights and all weekend trying to get by” and Participant 1: “it is expensive to be a student, it is tough financially” and “I think it is challenging to actually have the time to sit, think and study and read and write”. What is apparent, though, is that these participants rose to the challenge: they did not seek out short cuts.

4.7.6 Ethics. The term ethics is defined as the individual being concerned with issues of integrity: moral standards and how they affect behaviour. For participant 13 it was about following a code of conduct: “I think you would keep your promises, you would make commitments and stick to those commitments and you would also avoid doing 10 commandments things. So you wouldn’t be lying, stealing, cheating and that sort of thing”. He was also aware of how this could be applied in the context of fake universities: “I guess you could pay a few thousand dollars and just buy a degree from a no name brand university” and “in an ideal world no one would cheat and try and find buying a degree off the shelf, but I recognise that there are people who will actually try and pass it off or just plain old

lie on their resume”. Furthermore, he saw it as the employer’s responsibility to check these things out. He did not have a problem with an individual pursuing this line: “if you’re willing to pay that money, then go for it”. If there were any repercussions from the use of such fake credentials, then the individual concerned needs to be prepared to take responsibility. I found this very interesting. It was perceived in terms of the self-interest of the individual and became problematic only when it competes with the interests of others. Participant 12 observed “everyone assumes that the other side is acting with the utmost integrity, but you only really start thinking about it when somebody doesn’t” and “if somebody got a benefit that’s when they care”.

This raises the issue that of itself the acquisition of a fake degree was not seen as an ethical problem: the difficulty arises with its use. Following that logic, the existence of the providers (fake institutions) was not seen as an ethical issue either: and that is of concern. It points to the extent arising because people are either unaware or, if they are aware, don’t really care, as long as it does not affect them personally. The question then arises as to whether a community moral compass exists with regard to this issue.

4.7.7 External/influences/pressures. The term external/influences/pressures refers to those forces outside the individual that impact on the person’s decision-making and operationalising in the context of career-related choices. For example, Participant 7 referred to the need to have a work record on a resume: “today an employer would look at our resume and go what have you done? So it’s really encouraged to get work experience...which creates a lot of pressure to balance the study and the work”. Participant 2 stated “people increasingly feel as though they need to do the tertiary education for jobs. I suppose there’s more and more percentage of the population who has tertiary education”. This would lead to more competition for jobs on graduation which Participant 7 said resulted in “a lot of pressure to do quite well at university and do internships and get experience beforehand, so you can place yourself in a better position”. Such hands-on experiences do not come with the acquisition of a fake credential: individuals such as Participant 7 would therefore find the short-cut route unattractive. Meaningful study as opposed to credential acquisition would also see Participant 2 shy away from fake institutions: I found it interesting that she was effusive about the process of “tertiary education”.

4.7.8 Motivation. The term motivation is defined as those internal factors which drive an individual to pursue a particular course of action as distinct from external/influences/pressures defined above. Such factors will vary from individual to individual: indeed, they can be variable for a single individual. Participant 15 observed “my motivation changes depending on the necessity of my study”. Quite clearly for this individual it is synonymous with drive. For others it can be more subtle. For Participant 11 “after the graduate , we will have our own thought and we will know what I want to do in the future ...the people to do the postgraduate, they have more motivation and they want to get the degree and want to be a better person and want to study more things”. The desire to study is not going to attract these individuals to a fake institution.

4.7.9 Goals. The term goals is defined as the specific targets an individual seeks to achieve. It could be as simple as the attainment of a degree like Participant 12 who embarked on a particular course of study as “it gave me a Master’s, because that was what I was looking for”. Or it could be career goals in terms of moving forwards in a particular field like Participant 3. “My career goals at the moment are to continually – it’s to continue as a teacher at a primary school level, and in the future is to branch out to going back to university to study, and to study a speciality area, as I was saying earlier about my Masters on Literature – I’d love to get back into that. And then I would – my ultimate goal would be to become a university tutor” [an overall notion of moving forward but with a specific end result]. A fake institution is not going to deliver a desirable outcome for Participant 3: it could for Participant 12 and that is why it was necessary to undertake a detailed thematic analysis so that a particular individual’s motivation and moral values also became clear. In the case of Participant 12 the 29 minute interview yielded rich data that included a strong ethical stance. She would not countenance a fake degree.

4.7.10 Pathways. The term pathways is defined as those possible courses of action/avenues available to individuals to achieve the goals they set. Some, like Participant 5, were affirmed in the direction they had already chosen. “When I was still studying I got a job at X Rehab Hospital where I really liked working in that environment with the people, not only my colleagues but also the client group. I was very interested in that pathway and it really solidified why I was doing my master’s and why I wanted that career path”. For others it involved an option that opened up from study. Participant 6 reflected on where her current study might take her. “After

that finishes [i.e. her current course of postgraduate study] I will either see if I can – I think I'll try an international school and if I can do IB [International Baccalaureate] probably aim for South East Asia so that I can use my Indonesian". Or in the case of Participant 7 it opened up a choice: "I would like to go to probably move towards the state government and work either in statutory planning there or planning policy".

4.7.11 Flexibility. The term flexibility is defined as the extent to which an individual is able to modify or adapt a course of action, or choose an alternative pathway or approach, in order to fit personal needs. Participant 2 related this to her approach to study. "I was able to, for example, do almost my entire master's degree doing a day job, and my master's was evening classes". In referring to the structure of the distance learning model for his master's course Participant 13 said "I was wanting to go at a high speed, so I did - some trimesters I did three units, which is a full-time load. Other trimesters I did one or two". Being able to exercise choice as to the when and how was important in these both cases.

4.7.12 Awareness of shortcut. The term awareness of shortcut is defined as the individual knowing of the existence of fake institutions. Of the fifteen participants ten had no knowledge of this phenomenon. Participant 9 had partial knowledge but was not interested. "I'm aware that there are some American colleges that you can do these type of shortcuts. I wasn't interested in them, because I was looking – I'm looking for skills. I'm not looking for a short cut. I know that there are some out there, but look, if it looked like it was going to be a little dodgy, I didn't want to know about it". On the other hand, Participants 14 and 15 had a good awareness and both thought it was up to the individual whether or not a fake degree was purchased. Participant 14 said "so, at the very extreme end what we're talking about, a place like - well, University of X [here the participant named a real university], or something – fill in a form and congratulations – you've got a master's. Look, there's the economic argument, which is they're fulfilling a niche, and if you're crazy enough to buy it, good for you". Participant 13 noted "you see them on the internet all the time. I guess you could pay a few thousand dollars and just buy a degree from a no name university. I mean, you couldn't buy one from the University of Sydney, right? There's all stuff in place, but you could buy one from the University of, I don't know, North New South Wales [fictitious name], which is a nothing, but it's got a name and it looks okay and anybody can mock up a degree certificate in Word, right? If you're willing to pay that money, then go for it. I think

it's buyer beware". In terms of my research there are two points of concern here: first that there is a perception by some that it is fulfilling a market niche, and secondly that there would appear a tacit approval of the existence of fake institutions, or at very least no expressed disapproval. And this from those who are aware!

4.7.13 Personal characteristics. The term personal characteristics is defined as the attributes of the individual concerned. Participant 3 [a primary school teacher] saw a link between personality and suitability for the teaching profession. "I think the major qualifications would be you need to like kids, number one. You need to be – I feel like, as a teacher, you need to be personable... you need to be open to be able to talk to parents, to talk to students, to talk to colleagues" thus implying that certain personal attributes can be linked to studying for a particular outcome. Significantly Participant 13 noted that patience is a personal characteristic necessary for the distance education student. "You have to have a little bit of confidence in your ability and you also have to have a bit of patience and things don't always go smoothly, so you've got to have patience with that". The flipside of that is the individual who lacks this attribute may be more prone to exploring shortcuts. This has flagged for the researcher that some measure of frustration levels might be appropriately added to the question bank to be used in Study 2.

4.7.14 Location/convenience/accessibility. The term location/convenience/accessibility is defined as the degree of ease that an individual finds with regard to accessing a course of study. With regard to this, participants fell into one of three groups. A majority were those who were attending in person and sought an institution close to home: "X university was much easier for me to get to" (Participant 7), "nothing more convenient than a university being 10 minutes around the corner" (Participant 10), "a lot of it was to do with where I lived...I just wasn't willing to travel too far out from my comfort zone" (Participant 3), and "having to either drive or spend 45 minutes on public transport would lessen my desire to go to University X (Participant 14). Second there was a group who found it less disruptive/more convenient to study online or by distance for example Participant 13 stated "the distance thing was convenient. I didn't know anything about the university's reputation". There was also one who was prepared to uproot in order to attend a specific institution. Participant 6 said "I did move to Canberra primarily for my university degree, my Master". The other 14 in Study 1 were all concerned with convenience in one form or another. Whilst not represented in this small sample the

question nevertheless arises as to whether there are some individuals who might find it more convenient/less disruptive to purchase a fake credential outright.

4.7.15 Brand/marketing communication. The term brand/marketing communication is defined as the external efforts made by an institution to source out prospective students and keep their graduates in the loop which can be attractive for contemplation of further study. Participant 3 found this approach particularly appealing to “see what’s out there and offer me opportunities to continually grow. I think the good thing about University X is, I think they do a lot of – like they send a lot of emails out, and a lot of like brochures and newsletters and things like that that keep ex-students up to date with what’s going on. So that appealed to me as well, was that they – just hearing from friends and family who have been there, that they keep you in the loop and if you ever want to go back, that that’s an opportunity you can go back to, yeah”. Participant 9 offered a salutary warning about the need to be objective in assessing a future study program. “Well their marketing department is a well-oiled machine. I would tell them, depending on what you’re looking to get out of it, just be aware. Have your priorities set before you contact them as to what you want to get out of it, because yes, their marketing department is a well-oiled machine, and unless you have your priorities fixed in your mind, what you need, yeah. Rather than letting them tell you what you need”. But just how effective institutional marketing is to the coursework master’s degree cohort is a moot point. Six of the participants in the sample undertook their postgraduate study from the same university they had attended as an undergraduate. Four completed their postgraduate study at a different university located in the same city. Two completed postgraduate distance education courses from a university in a different state and one moved interstate to take up her postgraduate course. A further two had completed undergraduate study overseas and then migrated to Australia before seeking out postgraduate study. Nevertheless, I would conclude that even in this small sample some students are open to probing a specific course of action. For some beyond the sample this could include interest in a fake credential, depending on what the individual is seeking.

4.7.16 Self-esteem/independence. The term self-esteem/independence is defined as individuals feeling good about being in charge of their own destiny. Participant 3 felt in control of his own postgraduate study: “when I started my graduate, my master’s, I just – wasn’t needing that extra kick up the backside. I

wasn't needing that sort of so much guidance from my tutors or my lecturers and things like that, because I'd done it, and I'd proven to myself that I was a self-guided learner, that I could". I would argue that such an individual is less likely to be interested in a fake degree: a high sense of personal worth and achievement would make it unnecessary to bolster this individual simply with a piece of paper. Participant 3 has a demonstrable love of learning. By contrast an individual with low self-esteem might see the acquisition of a fake credential as enhancing personal standing. Self-esteem/independence is thus an important element to probe in Study 2.

4.7.17 Pragmatism/problem solving. The term pragmatism/problem solving is defined as an investigative process that emphasises practicality. Participant 13 identified this as a requisite trait of the postgraduate student; "you also got to have a bit of a problem solving/trouble shooting ability". Participant 4 saw this in terms of the pragmatic allocation of time for assignment work: "to be completely honest, the amount it was weighted. So if it was a 50 per cent assignment, obviously I would give that more time over a 15 per cent assignment, or stuff like that. It would honestly come down to that, how prevalent this is in the particular". Within a framework of completing tasks pragmatism is important. The question arises whether a more pragmatic person might just avoid the academic task altogether and just purchase a fake credential outright.

4.7.18 Interest area. The term interest area is defined as something that concerns, involves or draws the attention of an individual. The context here is that of education and work. Participant 10 reflected "growing up I had a strong interest in like science and also, I guess, anatomy. So that's why I did my Bachelor of Sport Science because I was unsure which field I actually wanted to choose. But the undergraduate degree became a stepping stone and interest in a specific area of knowledge evolved". Participant 4 observed "once I was actually in the career I figured out that it's definitely my passion". For many in the sample this concept of evolution is what lead to postgraduate study. Participant 5 said "I'd definitely suggest doing a master's because you get a deeper depth of knowledge". A further progression was evident with Participant 15: "I was actually going to do another master's after this, I was going to do Epidemiology, because I'm really interested in epidemiology". And then 'ultimately' Participant 13 said "so it wasn't a – it wasn't something that I needed to do in order to get some kind of career bump. So *I'm just*

doing it for me [my emphasis]”. Such ‘love of learning’ individuals are interested in knowledge and the process of learning, not the acquisition of a fake credential.

4.7.19 Balance theory/practice. The term balance theory/practice is defined as a satisfactory mix of both theoretical perspective and practical outcomes with regard to a particular action. Some participants considered this important: “you have to have that right level of balance” (Participant 13). For Participant 4 it related to course delivery: “I think they had a happy medium of getting you up and active, as well as the theory. So that’s sort of what I wanted to get from the course I suppose, that balance”. Participant 5 broadened the perspective to include “balance between work and study and life”. What is not provided with the acquisition of a fake credential is that sense of balance whereby the student has to marry contemplation (a theoretical perspective) and action (the practical perspective). The art of balancing these is a life skill in itself and fake credentials are devoid of such skill development.

4.7.20 Delivers outcomes/satisfied. The term delivers outcomes/satisfied is defined in the context of study as the individual being satisfied with the result or potential result of a particular course of study. For Participant 3 it was all about finding a fit between his interest in literature and getting a job. “So what led me to teaching was the idea that I could study for – to gain a position that would give me a job – give me a career, and that it would also keep me involved in the area of literature, because teaching English and learning how to teach English and things like that, and doing it at primary school/high school. So the master’s appealed to me because I could continue doing what I wanted to do and I could come back to it at a later date, hopefully, yeah, just to finish it off”. The interest here is in the process of study rather than gaining a master’s degree as an end result. Such an individual would be unlikely to demonstrate an interest in the acquisition of a fake credential. Others in the sample, such as Participant 10, acknowledged that studying a coursework master’s program had to date delivered a good job outcome “to be honest with you, the master’s, at the moment it’s very good to just earn money, but I – so that’s what I’m thinking in regards to whether further on down the track whether management’s on my mind or whether I do something. I know people in our workplaces are masters in sort of management in the hospital. So I’m not sure whether that’s going to be my thing or whether I do go down investigation, in terms of PhD study. But again, I’m happy at the moment to just work, gain as much experience as I can before I make any further decisions about study”. So, Participant

10 was satisfied with his lot but open to further study. Again, the interest goes beyond the acquisition of a credential.

4.7.21 Doubt. The term doubt is defined as a situation where the individual concerned is unsure as to what course of action should be taken or, if commenced, questioning whether it is the right one. A serious student would be more likely to assess the quality of a course as opposed to someone who was just seeking a credential. For example Participant 4 reflected on her master's coursework experience in the following terms: "It was too broad and there just weren't enough – sometimes I believe we needed some more confined boundaries, and we – I understand where they were trying to go with it, but it just sort of wasn't successful. So I don't – it's been a while, but I don't know if I'd recommend the course. I'm not too sure".

4.7.22 Familiarity. The term familiarity is defined as the extent of awareness of an individual regarding a particular phenomenon or people. Participant 5 felt comfortable that her course had a limited cohort. Both students and lecturers knew each other. "I think I felt like I wouldn't just be a number ... it was easy because everyone knew who you were". In the case of Participant 4 it actually influenced selection of the university for the master's coursework program: "because it was familiar. Because I'd done my undergrad at University X, and I was happy with my undergrad". Where individuals are familiar and comfortable with the workings of a particular institution, I would argue they are less likely to show interest in a fake institution where they would have limited knowledge.

4.7.23 Routines/structure. The term routines/structure is defined as the set patterns within which the individual operates. For example, participant 15 liked to have a clear structure in a course of study so that he could apply a study strategy to assignment work. "It's worth how many marks, can you break that up so you know how many words you've got to attribute to each one and such and such. Because I find if you plan it, you can cut your time in half". Such a strategy would be irrelevant to an individual who was merely concerned with purchasing a piece of paper. Participant 4 "liked the routine actually, of study. I liked the routine of sitting down and having everything in front of me". With such involvement in the process a quick purchase of a so-called credential would be unlikely to appeal.

4.7.24 Peer support/appeal of like-minded. The term peer support/appeal of like-minded is defined as having a similar disposition/opinion, feeling comfortable

working with others/feeling others are on same page. Participant 4 enjoyed the process of working with “like-minded people”. That there was something appealing about working together with his peers was reiterated by Participant 10. This avenue is denied to those who simply purchase a fake credential.

4.7.25 Influence of technology. The term influence of technology is defined as the impact of high tech scientific know-how on individuals’ task completion. The ubiquitousness of technology was emphasised by Participant 4. “You know, you can’t sit down anywhere without your phone, you can’t sit down without your laptop open. Every tab has Facebook, Instagram, this, that, and the other. I’d say that’d be a really big challenge. Participant 5 articulated concern about this as it applied to the education process: “both of my degrees [i.e. undergraduate and master’s coursework] were quite heavy with contact hours so we were there quite a lot. I just find that I wouldn’t be motivated nearly enough if I was offered online catch-up with – that’s another thing about X university. None of their lectures were online. None of their lectures were recorded so you had to go. You had to appear. I think that’s a real downfall of education at the moment is that students don’t necessarily have to turn up to class. Students can choose to catch up later or just choose to see whether they can pass an exam without going to those classes. I think that is a real risk of technology”. I would argue that a student who values such involvement and interaction would have little interest in a fake credential.

4.7.26 Practicality. The term practicality is defined as the degree of usefulness of a particular course of action. Related to the context of master’s coursework programs this is interpreted as universities having the requisite equipment and structures for students to have a hands-on experience. Students who put a premium on this would be unlikely to purchase a fake credential as involvement in the process was paramount. As a student of exercise science Participant 5 stated “it is an important part of the science degree to have those bits of equipment” and noted this was one of the factors in institutional selection. “To get lots of practical experience in the field” [in this case urban planning] was also important for Participant 7 in engaging in a subject in statutory planning. Having hands-on experiences, be it simulation exercises or working with appropriate equipment, was an important factor in course selection.

4.7.27 Strategy. The term strategy is defined as an individual’s adopted course of action to achieve an outcome. Participant 12 related this to structuring her

study program to become an educational researcher which required high marks to get into the next part of the program: “actually I’ve had to take a couple of breaks, that’s been really important. Working full-time and trying to study, I’ve had to take breaks because it just – it gets too much and I can’t - I just can’t do it, and it is really hard. So taking breaks has been important”. For Participant 9 [a researcher in wool metrology] a master’s coursework degree was the answer to her professional crossroads decision. “I’ve got to a stage in my career now. I’m 40’s. I’ve decided that I don’t particularly want to spend the rest of my life sitting in research. I’ve looked at the people that I’m competing against in the company. They’re all men. So I’m basically the last female left in the company. I’m probably one of the most qualified people left in the company, but I seem to be – people seem to go around me. I’ve looked at the need to compete against those other people. I need to get better qualifications. For me, it’s a two-way stream. I either advance in the company, or have an exit strategy. This coursework MBA gives me an exit strategy, because I’ve got research experience coming out of my ears. But I don’t necessarily have the management – well, I have the skills, because I’ve been doing that. But I don’t necessarily have proof of those skills. So this gives me proof that I’ve actually – actively done something in that area”. Participant 8 summed it up succinctly: “in graduate you’re kind of fine tuning how you’re going to approach work”.

Participant 9 would seem an ideal candidate to consider cutting corners and show interest in acquiring a fake credential. She fulfils a necessary condition: she had the experience but not the piece of paper. But it is not a sufficient condition. The second tier is the ethical dimension. In her case she said “I’m aware that there are some American colleges that you can do those types of shortcuts. I wasn’t interested in them...if it looked like it was going to be a little bit dodgy, I didn’t want to know about it”.

4.7.28 Course inadequacies/deficiencies. The term course inadequacies/deficiencies is defined as the shortcomings of a particular course as perceived by an individual student or potential student. Participant 14 was scathing about the academic standards of master’s coursework students he had encountered in his work. “They have no analysis skills. They have very little in terms of drafting skills. I have many – I’ve had many students who are native English speakers who write as if they’re still 13. Complex sentences are somewhat beyond them. They don’t understand the role of paragraphs. All of this basic information that we were

taught – in grammar – has gone”. On the other hand, Participant 12 had expectations of what her master’s course would deliver and felt they were not met. “I think my psych degree actually has been the most valuable because that taught me how to read research and analyse research, and that I had to look for research before I could make any claims. I didn’t get that in my – I did a Master of Teaching, and I didn’t get that in that course, it was – there was – yeah, they didn’t have that same emphasis on what does the research say to support what you are, or wanting to do, or what you’re arguing in your essay, so that for me was the big thing”. Individuals who are as critically aware as this are highly unlikely to be interested in the acquisition of a fake credential.

4.7.29 Life-long learning/professional passion. The term life-long learning/professional passion is defined as the continual desire of individuals to further their education. Participant 6 [a language teacher] is an excellent example: “it made sense to pick up Indonesian. I just loved learning that and I just always wanted to learn a language and I just kept it up” and on her current master’s coursework program in Indo-Pacific studies “this definitely won’t be the last thing I will be doing. It’s important as an educator you are always learning the latest things....I like being in that cutting end of what’s happening which is why University X is so great. You’ve got all the world experts in that field”. Participant 9 had a similar outlook: “I will never say no. I was brought up with the mantra of continued lifelong learning”. And Participant 15 linked this also to job prospects. “Oh yes, I’d go back and do a masters in epidemiology and potentially pursue a PhD as well, so that I could be competitive”. The acquisition of a fake credential does not deliver the satisfaction of immersion that each of the above clearly enjoy.

4.7.30 Role of employer. The term role of employer is defined as what the employer should do: in the context of this research it is the responsibility held by those who are hiring staff to check credentials. Participant 13 articulated a clear direction for employers in this regard. “I think it’s buyer beware, so I think it’s down to employers and those sorts of people to look over that sort of stuff and if your bullshit meter is alerted, then take it out”. Participant 13 then went on to describe the details of a particular case of which he had considerable knowledge. Certainly, a more proactive position taken by employers would be useful in confronting the problem of fake credentials.

4.7.31 Misrepresentation issues. The term misrepresentation issues goals is defined as an individual claiming to have attributes/skills/credentials when, in fact, this is not demonstrably true. Participant 13 continued his hiring scenario as follows: “if they fly through all of the barriers and get hired and then later they’re found to have misrepresented themselves, then that’s an opportunity for dismissal and the policies around recruitment are very clear about that. If you do misrepresent yourself or there’s something wrong with your resumé, then don’t expect a handholding mollycoddling session. You might – you face dismissal and no one will ever write a reference for you”. Yet some who purchase fake credentials embark on taking the risk, clearly underlining an important role of the employer in addressing this behaviour.

4.7.32 Learning style. The term learning style is defined as the particular way an individual learns or goes about learning. Participant 15 stated his approach as follows: “the best way to get skilled up appropriately would be to do some sort of further education. I thought well it’s easy to study online”. Participant 12 expanded as to why this might be the case. “I’m technically a distance education student at X university, so I don’t have to work in groups, and I like it that way because I did that in my undergraduate, because they always forced us to do that, and it was abysmal because people are just – they don’t have the same motivation. So, yeah, I don’t tend to have to work with them. When I do, it’s you know, I always try to be very positive and – but it’s hard when people yeah, people that aren’t pulling their weight”. Learning style impacts on an individual’s preference for following a particular course of action in their approach to qualification acquisition and this could include the taking of shortcuts and possible purchase of the desired credential.

4.7.33 Opportunity. The term opportunity is defined as the possibilities that become available to an individual from a particular course of action. In the context of this research it is linked with decision making regarding credential options. Participant 4 saw this as “treating the course as an opportunity and a chance”. For Participant 9 it was all about grasping a chance to be supported in study linked with her employment: “I just happened to come across a master’s scholarship in the area. So I just enrolled in that and I was given that. So I was given the opportunity to work in the industry, in an area that I enjoyed to do my masters, successfully completed that. Then the company itself just took me on”. Both these participants

saw legitimate courses as a pathway to furthering employment possibilities. But it is questionable whether they would see a fake credential as an opportunity.

4.7.34 Professional knowledge/skills. The term professional knowledge/skills is defined as the particular area of developed expertise of an individual. Participant 15 commented on the contribution courses of study can make in this regard: “you certainly pick up a lot of valuable bits of information and then you can bring them back into your career, your employment essentially”. This participant was noting the benefits to be gained from the study process and would clearly not be interested in simply acquiring a fake credential. The value to be gained from immersion in the learning process was reiterated by other participants. For example, Participant 8 made comments such as “it gave me a better understanding” and “you think about things more” and Participant 13 was concerned with “using all of the learned knowledge to deliver results”. Mere acquisition of credentials does not provide such a vehicle.

4.7.35 Demand for qualifications/need. The term demand for qualifications/need is defined as the professional/industry requirement of being academically credentialed to participate in particular profession or industry. For example, Participant 4 expected to gain a teaching degree from X university in order to teach in a primary school. Participant 14 saw pressure from industry reflected in course offerings. “Industry itself seems to want a high capability in computational skills, on a mental level. So being able to look at models and work them out and break them down and have a feeling for them – which is rare, these days – is very important and corporate values and building models was heavily focused on”. Institutions providing only a testamur would not meet these needs.

4.7.36 Cost. The term cost is defined as the financial consideration required to undertake a particular course of study. This significantly affects the decisions of many students. In this study eight of the participants identified it as a major factor with comments such as “it is expensive to be a student, it is tough financially (Participant 1), and “the financial cost of taking time off to complete – you know you have to take a couple of years off to do it, and it’s just – that’s not a viable option for me (Participant 12). For some it can affect the choice of course and institution. Participant 9 said she looked at some of the more local schools in Melbourne and X university’s MBA is just – it is so expensive that, on a research salary, I can’t justify that”, while Participant 11 said “I also heard X university is a very good school and

the accounting class is very good, and tuition fees lower than Y university.

Participant 14 was even more effusive: “I looked at INSEAD [a graduate business school with campuses in Europe, Asia, and the Middle East. “INSEAD” is originally an acronym for the French “Institut Européen d’Administration des Affaires], a lot of the States’ schools, a lot of the American schools, priced them up. It was \$200,000 to do it there or \$25,000 to do a Master’s of Commerce here, and it would take the same amount of time. Not wanting to sell my house, or – and my car and live overseas and do all of that, I decided”. From a cost perspective fake credentials have appeal.

4.7.37 Choice/options. The term choice/options is defined as selecting between possible pathways. As noted in the example above cost is a significant factor in the choices of many. But for some like Participant 6 the more important factor is interest. “I always knew what course I wanted to do but the temptation was to stay I must admit at X [teaching in a secondary college]...I would have been happy to do that but I knew my interest lay in Asia [and] X university was going to be \$55,000”. The learning environment is also a factor affecting choice. Participant 2 “had the option of X university or University of Y. I hadn’t considered any kind of online, open universities’ courses. I thought, at the time, I might change my mind if I had my time again – I thought at the time I would learn much better in a face to face environment. So because of that and because of where I was living, I thought well those are my only two options”. Participant 7 went a step further in choosing a longer course from the two options available “because I felt that if I was moving into an area of study that I hadn’t done my undergraduate on, then I needed as much education as possible”. Such students as Participants 6, 2 and 7 would have no interest in the acquisition of fake credentials.

4.7.38 Ambiance/learning environment. The term ambiance/learning environment is defined as the atmosphere of the physical conditions in which the learning takes place. This was a factor contributing to the choice of institution for some participants. For example, Participant 7 considered the physical setting: “X university had nicer buildings”. Participant 15 reflected on his experience: “I like the feel of studying up there...I’d say it’s a great place, everything you need is on campus...Even if you have to stay on campus, there’s student accommodation and even if you can’t get one of those, then the surrounding areas are full of units and houses that people rent out. I know plenty of students or I’ve met plenty of students

over the years, whose whole life is in this small bubble of only a few kilometres radius. They live there and then they walk to the uni, because there's food outlets, there's a post office, there's banks. Then you've got everything you need in education there, and there's a train station there as well. It's a real good setup". For Participant 10 it was about the learning experience provided: "[a] good learning opportunity. The teachers, because it was a small cohort, they were open. There was an open door policy there and also there was that small group, intimate, I guess, learning environment which was good. Also they offered very good facilities".

These factors are important, as the comments above demonstrate. Fake universities usually do not offer a physical learning space, but rather operate from an office or agency. Thus, they would have no attraction with regard to this element.

4.7.39 Professional disposition/self-discipline. The term professional disposition/self-discipline is defined as the extent to which individuals take responsibility for their own careers and manage themselves accordingly in the workplace. For Participant 2 it meant "being open to questions from whoever your stakeholders and/or clients and/or colleagues may be. Open to working on projects and being kind of a balance between amenable, because I don't know if you get too far by being just really nice all the time. You want to be a balance of amenable and confident". So there is a degree of assertiveness involved and the wherewithal to function efficiently, requiring a measured attitude. Such personal dispositions are not fostered by fake institutions. Immersion in a course of study can provide experiences that strengthen these traits.

4.7.40 Control/independence. The term control/independence is defined as the degree to which individuals can make their own decisions, as opposed to being restrained by external factors. For Participant 3 this came to the fore with university experience: "like I was in charge of everything. I was in charge of getting there. I was in charge of you know your whole life". Participant 7 exercised this with a computer strategy: "so when I was studying I used an app on my computer which blocked out certain sites, so I wouldn't go on Facebook or I wanted go onto The Age and distract myself". Again the acquisition of a credential from a fake institution does not engender the development of such personal qualities.

4.7.41 Gain qualification. The term gain qualification is defined as the desire to achieve a relevant credential. Participant 4 who wanted to be a primary school teacher saw the purpose of her university experience as gaining a teaching

degree. Participant 2 noted in that her chosen field of urban planning the requirements could be met in a number of ways. “There are bachelors of urban planning at different – some universities. Others, it’s kind of a major you might take through some social science, some science, some architecture faculties. So it changes, but they’re all recognised”. Participant 1 observed that the holding of the credential was really the thing that mattered. “The reality is that in the years since I applied for jobs, they’ve only ever wondered what qualification I have not where I got it from, and that has never been a question, it’s never been a factor that I’ve known about. As in they may have looked over it as part of the application process, but it’s never been something made visible to me. On the selection panels that I’ve been on it’s never been something that’s been a consideration. It’s more about looking at the skill set and how the person interacts in the interview process, which is the determining factor”. The acquisition of the credential is the key point, and this leaves the door open for fake institutions to find willing buyers. This is of concern, though Participant 1’s observation of the priority of the skill set is mitigating.

4.7.42 Lack of direction. The term lack of direction is defined as the absence of a clearly articulated pathway to achieve a goal. This can be clearly illustrated with respect to academic requirements in a course. Participant 4 reflected on just such an experience in one of her subjects. “There were some assignments where the entire cohort would ask the teachers, we’re not too sure what you expect of us. Because, for example, the assessment criteria rubric didn’t match the question that we were handed. It caused quite a lot angst and anger amongst the student body, because we were sitting there going, just tell us what you want. Do you want us to answer the question or do you want us to tick the boxes in the rubric”? Such an issue would not arise in a fake institution that simply sold testamurs on the open market.

4.7.43 Culture. The term culture is defined as the values of a people: a set of behavioural expectations. Participant 13 related this to a modus operandi in the way a person works. “So for professionalism at work, I guess you have to somehow subscribe to what those cultural values are”. Participant 14 related it to the situation of foreign students in Australian universities. Postgraduate students are more often foreign...[and] have different cultural understandings of how you work and there is a failure on universities generally – this is true of X university, Y university, and Z university, everyone – to properly address that role of the foreign student and bring them on board with how work should occur in the Australian or western context”.

The question then arises as to whether or not foreign students [to Australian/western cultural norms] might be more inclined to purchase and attempt to use a fake credential.

4.7.44 Accredited. The term accredited is defined as an institution [in this context a tertiary education provider] being acknowledged by the appropriate regulator. In most cases this is government with sometimes additional accreditation through a professional association but the situation in the United States allows for a myriad of possibilities since it is an entirely voluntary process, done by private, nongovernmental agencies (Bear & Bear, 2001). In searching out an HR [Human Resources] degree Participant 13 noted “I think I looked at a range of – well, basically, the way to choose that HR degree is the HR Institute accredits a range of degrees, so if you go to the HR Institute, AHRI [Australian Human Resources Institute], in Melbourne, then you can see what master’s level degrees are accredited”. This is a useful safeguard which would exclude fake institutions.

4.7.45 Time management/prioritising. The term time management/prioritising is defined as an individual’s allocation of the hours available to complete a task. Participant 14 had a simple principle that he applied: “my approach has always been, if they’re paying you, that has to come first”. Participant 12 tried to keep work separate too: “I try to keep my work to my work hours and that, and then outside that it’s then my study time, and I try to make sure I timetable, at least find somewhere to fit in 20 hours a week. Before, I was getting up at 4.00 or 5.00am in the morning to study”. As Participant 11 said the challenge for many students is “how to allocate their time” and Participant 9 addressed this with “whatever’s the most urgent requirement. “You have to be disciplined” (Participant 13) and “time efficient” (Participant 5). What is of significance here is that in all these cases the recognition to manage time successfully was there and each had developed strategies to do so. It was not a question of avoiding the task and looking for a shortcut such as the purchase of a fake credential.

4.7.46 Balance work/life. The term balance work/life is defined as satisfactorily meeting the pressures of both employers/educational providers and needs of the individual. For Participant 9 it meant making a decision to defer her own study. “At that stage, it wasn’t – I couldn’t see how I’d fit that into my life. So three young children, plus working. I just couldn’t work it out”. In this case her own personal integrity meant that acquisition of a fake credential was not an option.

She wanted skills and qualifications which “measured up”. Participant 10 was able to work it out but acknowledged the work/life issue. “Study was number one and I always prioritised study. I was lucky enough in my line of work, I was more casual. So for example if I had a big assignment due, it didn’t really matter because I could put as much time and energy into that versus my casual work. I was lucky”.

4.7.47 Influence of family/peers. The term influence of family/peers is defined as the impact of significant others on an individual’s decision-making. The case of Participant 6 is a poignant example. “Then I moved into teaching. It just made sense. I loved humanity subjects and my mum suggested why don’t you do teaching? I never thought about it”. Participant 12 observed “I just come from a family of educators, so you can’t fight it”. Significant others can have a real impact on an individual as these two cases demonstrate. But there is also an implicit assumption that the direction provided is a worthy one. It is questionable as to whether a significant other would apply sufficient pressure to undertake the act of purchasing a fake qualification.

4.7.48 Role model/modelling. The term role model/modelling is defined as the influence an individual can have on another. Participant 6 recounts the story of a girl she met two years ago when living in Indonesia. “She had done her International Relations degree and after the end of the year she decided that she wanted to become a teacher. I was a positive role model and she decided she wanted to become an Indonesian teacher. She didn’t have any experience. She did have her Bachelor degree but in a completely different field. I said to X and she was asking me lots of questions. I said well this is what I think you should do”. X acted on the advice to achieve her goal. Simply acquiring a piece of paper would be totally inadequate in the case of language teaching and there is no room for fake institutions in this scenario.

4.7.49 Return on investment. The term return on investment is defined as the measure of reward compared to outlay, particularly, but not exclusively, in financial terms. Participant 8 observed “I think when you’re paying you tend to be a lot more motivated to get the most out of it”. The return was seen as a measure of expertise whereas Participant 10 saw it as providing the ability to earn money. Participant 11 effectively combined these two perspectives: “The people to do the postgraduate, they have more motivation and they want to get the degree and want to be a better person and want to study more things. Sometimes it means the higher

degree had that higher salary or higher experience level and then they'll meet higher people". Thus, she was perceiving both an economic and social return in her eyes. Fake universities could, in fact, provide a sense of higher self-esteem by virtue of the individual claiming to hold a higher-level award. But they would not accommodate such individuals as Participant 8.

4.7.50 Brand awareness. The term brand awareness is defined as the extent of consumer knowledge regarding products (both goods and services) available. In the context of this research it is specifically to do with the offerings of tertiary institutions. Participant 6 articulates the point clearly: "Primarily I picked X university because everyone – I looked at Y university and Z university but everyone in the industry for Indonesian says if you want to specialise in Asia you go to X university. Brand awareness conditioned her choice of preferred option. Fake universities do not have a positive brand awareness to market.

4.7.51 Workload. The term workload is defined as the volume of tasks the individual is expected to complete within a given timeframe. Participant 6 addressed this in comparing her experience of undergraduate and postgraduate degrees. "Masters is a hell of a lot more work than undergraduate. It's a lot more work. I'm surprised by how busy I am. Naively I thought I'd be less busy this year but I'm busier than ever but in a great way. Maybe that's also because I am really interested because I'm doing it. I've had a break and I've chosen to do this. I'm interested in what I'm studying so I actually am doing all the work". Clearly, an extensive amount of work needed to be completed. This is not the case in the provision of fake credentials.

4.7.52 Stress/struggling. The term stress/struggling is defined as the amount of pressure felt by the individual. One respondent (Participant 14) felt he was "running like a headless chicken, trying to think". But the others who mentioned this did so in the context of students struggling more as undergraduates, and by the time they had launched into postgraduate they had developed better coping strategies. Participant 11, for example, spelt this out based on her own experience. "For the undergraduate students I think what they want may be just – because maybe they are young, younger than the postgraduate students. At that time they just want – see, sometimes as me, I'm confused I don't know what major to choose. Just my mum help me to choose some major and to follow many people's

advice. But after the graduate, we will have our own thought and we will know what I want to do in the future”.

Participant 9 reflected on the student cohort undertaking a business master’s course, some of whom had been admitted by direct entry without the undergraduate experience. [A number of universities allow students to enrol in a Graduate Certificate by direct entry as a mature age student with work experience, and if successful in the subjects can then articulate to the full master’s degree.] She had noticed “some of the students are really ill-prepared for writing assignments or sitting exams...they don’t have those foundations...I can see that some of these students are really struggling with the concepts of writing an assignment, referencing – the questions that they’re posing about referencing. There is no way that – we got all of this done, first year, undergrad. If you couldn’t reference, there was no way you were going on to second year. It just astounds me that they seem to be really, really struggling with this”. By contrast fake universities are unconcerned with matters such as referencing.

4.7.53 Apprehension/fear of consequences. The term apprehension/fear of consequences is defined as the individual being wary of the outcome of a particular course of action. Participant 6 felt this when she returned to study as an adult. “When I’m back being a student I realise some things are actually quite nervous and stressful the first time you do it”. Participant 12 linked this to possible consequences for involvement in academic deception and plagiarism. “I constantly get people emailing me from some company, that want my past essays”. When asked if she had ever complied with such a request she answered no: “I don’t want to get sprung, and they know, they read – you know if six people have the exact same paper, they’re reading every single one of those things, and it’s now you’ve got the – all the electronic [unclear, but probably referring to the program Turnitin] and things. I just – even with me referencing, I’m always worried that I haven’t referenced properly, and haven’t rephrased what they’ve said enough”.

4.7.54 Awareness of profession. The term awareness of profession is defined as the extent of knowledge an individual has about a particular area. The case of Participant 7 is a good example of how specific areas of expertise may be unknown to individuals initially and awareness only emerges as a student probes postgraduate study after a generalist undergraduate degree. “I wasn’t fully aware of

planning as a profession when I entered uni, so at the time I wouldn't have chosen an undergraduate degree because I didn't actually know that there was a profession".

4.7.55 Distractors. The term distractors is defined as those factors which have the potential to move the individual off task. Participant 7 felt that technology has created difficulties for study: "I think the access to things like social media and the internet creates a lot more distraction which is just harder to – it's harder to focus on study. Obviously the internet has given us students a lot more, many more shortcuts to accessing information which is great. But it's also quite difficult to tune out some of the more distracting sites". The internet has also provided a vehicle for fake providers to market their wares.

4.7.56 Sacrifice. The term sacrifice is defined as what the student has to forego in terms of meeting study demands. This was clearly articulated by Participant 15: "Well, it takes a great deal of sacrifice actually on my part, because I'm obviously working fulltime as I'm studying and I'm often studying close to fulltime hours as well. I manage that by as soon as you get home, in the evenings after I cook dinner and all that, you do a bit of reading. You try and get your readings knocked over through the week, and then on your weekends, you finish off your readings and that's when you do your assignments. You generally find that your social interaction and other things take a big hit." Here in this sample is evidence of the dedication and professionalism that the interviewees showed in the pursuit of their coursework master's degrees and of the unlikelihood that they personally would acquire a fake qualification.

4.7.57 Summary of codes. To assist the reader in terms of clarity and focus the following table provides a summary of codes, definitions and edited examples.

Table 2

Summary of Codes, Definitions and Edited Examples

Code	Definition	Edited Example
Job requirements	The perception of the interviewee that a particular aspect was necessary for employment purposes.	“When I went through you had to do a master’s to be an exercise physiologist” (Participant 5)
Searching focus	a realization and activity of the participant in seeking out an appropriate career pathway.	“When I did finish with creative arts as my major I thought, hmm, what can I really do with that kind of thing” (Participant 4)
Marketing prestige, reputation	The internalization by the participant of an institution’s public standing and awareness of the methods used by the particular institution to present itself.	“If you put down MBA, that’s recognisable worldwide. So that’s one of the reasons why I chose the MBA is because it’s got that credibility in the US and the UK”. (Participant 13)
Job market reality	The degree of fit between the course of study and employment: positions available in the job market.	“For exercise physiology it would have to be the clinical – the Masters of Clinical Exercise Physiology. Without that you’re limited in terms of accreditation” (Participant 10)
Resources	The requisites needed by the student to be able to engage in postgraduate study: essentially money and time.	“Working late nights and all weekend trying to get by”. (Participant 2)

Ethics	The individual being concerned with issues of integrity: moral standards and how they affect behaviour.	“Everyone assumes that the other side is acting with the utmost integrity, but you only really start thinking about it when somebody doesn’t”. (Participant 12)
External influences, Pressures	Those forces outside the individual that impact on the person’s decision-making and operationalising in the context of career-related choices.	“Today an employer would look at our resume and go what have you done? So it’s really encouraged to get work experience...which creates a lot of pressure to balance the study and the work”. (Participant 7)
Motivation	Those internal factors which drive an individual to pursue a particular course of action as distinct from external/influences/pressures.	“My motivation changes depending on the necessity of my study”. (Participant 15). [Quite clearly for this individual it is synonymous with drive.]
Goals	The specific targets an individual seeks to achieve.	“It gave me a Master’s, because that was what I was looking for”. (Participant 12)
Pathways	Those possible courses of action/avenues available to individuals to achieve the goals they set.	“When I was still studying I got a job at X Rehab Hospital where I really liked working. I was very interested in that pathway and it really solidified why I was doing my master’s and why I wanted that career path”. (Participant 5)
Flexibility	The extent to which an	“I was able to do almost my entire

	individual is able to modify or adapt a course of action, or choose an alternative pathway or approach, in order to fit personal needs.	master's degree doing a day job, and my master's was evening classes". (Participant 2)
Awareness of shortcut	The individual knowing of the existence of fake institutions.	"You see them on the internet all the time. I guess you could pay a few thousand dollars and just buy a degree from a no name university". (Participant 13)
Personal characteristics	The attributes of the individual concerned.	In the context of being a distance education student "You have to have a little bit of confidence in your ability and you also have to have a bit of patience and things don't always go smoothly, so you've got to have patience with that". (Participant 13)
Location, convenience, accessibility	The degree of ease that an individual finds with regard to accessing a course of study.	"Nothing more convenient than a university being 10 minutes around the corner" (Participant 10)
Brand marketing communication	The external efforts made by an institution to source out prospective students and keep their graduates in the loop which can be attractive for contemplation of further study.	"Well their marketing department is a well-oiled machine. I would tell them, depending on what you're looking to get out of it, just be aware." (Participant 9)

Self-esteem/ Independence	Individuals feeling good about being in charge of their own destiny.	“When I started my master’s, I just wasn’t needing that extra kick up the backside or so much guidance from my tutors and lecturers because I’d done it. I’d proven to myself that I was a self-guided learner, that I could”. (Participant 3)
Pragmatism/ problem solving	An investigative process that emphasises practicality.	In terms of the pragmatic allocation of time for assignment work: “to be completely honest, the amount it was weighted. (Participant 4)
Interest area	Something that concerns, involves or draws the attention of an individual. (The context here is that of education and work.)	“Growing up I had a strong interest in like science and also, I guess, anatomy. So that’s why I did my Bachelor of Sport Science”. (Participant 10)
Balance theory, practice	A satisfactory mix of both theoretical perspective and practical outcomes with regard to a particular action.	In relation to course delivery: “I think they had a happy medium of getting you up and active, as well as the theory. So that’s sort of what I wanted to get from the course I suppose, that balance”. (Participant 4)
Delivers outcomes, satisfied	The individual being satisfied with the result or potential result of a particular course of study.	“What led me to teaching was the idea that I could study for – to gain a position that would give me a job – give me a career, and that it

		would also keep me involved in the area of literature”. (Participant 3)
Doubt	A situation where the individual concerned is unsure as to what course of action should be taken or, if commenced, questioning whether it is the right one.	“It was too broad. Sometimes I believe we needed some more confined boundaries. I understand where they were trying to go with it, but it just sort of wasn’t successful. So I don’t know if I’d recommend the course”. (Participant 4)
Familiarity	The extent of awareness of an individual regarding a particular phenomenon or people.	A limited student cohort had appeal to some. “I think I felt like I wouldn’t just be a number ... it was easy because everyone knew who you were”. (Participant 5)
Routines, structure	The set patterns within which the individual operates.	[I] “liked the routine actually, of study. I liked the routine of sitting down and having everything in front of me”. (Participant 4)
Peer support/ appeal of like-minded	Having a similar disposition/opinion, feeling comfortable working with others/feeling others are on same page.	[I enjoyed the process of working with] “like-minded people”. (Participant 4)
Influence of technology	The impact of high-tech scientific know-how on individuals’ task completion.	“You know, you can’t sit down anywhere without your phone, you can’t sit down without your laptop open. Every tab has Facebook, Instagram, this, that, and the

		other”. (Participant 4)
Practicality	The degree of usefulness of a particular course of action.	“To get lots of practical experience in the field” [in this case urban planning, is important] (Participant 7)
Strategy	An individual’s adopted course of action to achieve an outcome.	“I either advance in the company, or have an exit strategy. This coursework MBA gives me an exit strategy, because I’ve got research experience coming out of my ears”. (Participant 9)
Course inadequacies, deficiencies	The shortcomings of a particular course as perceived by an individual student or potential student.	“I think my psych degree actually has been the most valuable because that taught me how to read research and analyse research, and that I had to look for research before I could make any claims. I did a Master of Teaching, and I didn’t get that in that course, that for me was the big thing”. (Participant 12)
Life-long learning, professional passion	The continual desire of individuals to further their education.	“It made sense to pick up Indonesian. I just loved learning that and I just always wanted to learn a language and I just kept it up” (Participant 6, Language teacher)

Role of employer	What the employer should do: in the context of this research it is the responsibility held by those who are hiring staff to check credentials.	“I think it’s buyer beware, it’s down to employers and those sorts of people to look over that sort of stuff and if your bullshit meter is alerted, then take it out”. (Participant 13)
Misrepresentation issues	An individual claims to have attributes/skills/credentials when, in fact, this is not demonstrably true.	“If they fly through all of the barriers and get hired and later they’re found to have misrepresented themselves, then that’s an opportunity for dismissal: and the policies around recruitment are very clear about that. (Participant 13)
Learning style	The particular way an individual learns or goes about learning.	“The best way to get skilled up appropriately would be to do some sort of further education. I thought well it’s easy to study online”. (Participant 15)
Opportunity	The possibilities that become available to an individual from a particular course of action.	“I just happened to come across a master’s scholarship in the area. So I just enrolled in that and I was given that. (Participant 9)
Professional knowledge/skills	The particular area of developed expertise of an individual.	“You certainly pick up a lot of valuable bits of information and then you can bring them back in to your career, your employment essentially”. (Participant 15)

Demand for qualifications	The professional/industry requirement of being academically credentialed to participate in particular profession or industry.	“Industry seems to want a high capability in computational skills. So being able to look at models and work them out is very important and corporate values and building models was heavily focused on”. (Participant 14)
Cost	The financial consideration required to undertake a particular course of study.	“I looked at INSEAD, a lot of the States’ schools, a lot of the American schools, priced them up. It was \$200,000 to do it there”. (Participant 14)
Choice/options	Selecting between possible pathways.	[I] “had the option of X university or University of Y. (Participant 2)
Ambiance, learning environment	The atmosphere of the physical conditions in which the learning takes place.	“I like the feel of studying up there...I’d say it’s a great place, everything you need is on campus”. (Participant 15)
Professional disposition, self-discipline	The extent to which individuals take responsibility for their own careers and manage themselves accordingly in the workplace.	[It means] “being open to questions from whoever your stakeholders and/or clients and/or colleagues may be. Open to working on projects and being kind of a balance between amenable and confident”. (Participant 2)

Control/ independence	The degree to which individuals can make their own decisions, as opposed to being restrained by external factors.	“...like I was in charge of everything. I was in charge of getting there. I was in charge of you know your whole life”. (Participant 3)
Gain qualification	The desire to achieve a relevant credential.	“There are bachelors of urban planning at different – some universities. Others, it’s kind of a major you might take through some social science, some science, some architecture faculties. So it changes, but they’re all recognised”. (Participant 2)
Lack of direction	The absence of a clearly articulated pathway to achieve a goal.	“There were some assignments where the entire cohort would ask the teachers, we’re not too sure what you expect of us”. (Participant 4)
Culture	The values of a people: a set of behavioural expectations.	“So for professionalism at work, I guess you have to somehow subscribe to what those cultural values are”. (Participant 13)
Accredited	An institution (in this context a tertiary education provider) being acknowledged by the appropriate regulator.	“Well, basically, the way to choose that HR degree is the HR Institute accredits a range of degrees, so you go to the HR Institute”. (Participant 13)

Time management prioritising	An individual's allocation of the hours available to complete a task.	"I try to keep my work to my work hours and then outside that it's then my study time, and I try to make sure I timetable, at least find somewhere to fit in 20 hours a week". (Participant 12)
Balance work/life	Satisfactorily meeting the pressures of both employers/educational providers and needs of the individual.	"Study was number one and I always prioritised study. I was lucky enough in my line of work, I was more casual". (Participant 10)
Influence of family/peers	The impact of significant others on an individual's decision-making.	"Then I moved into teaching. It just made sense. I loved humanity subjects and my mum suggested why don't you do teaching? I never thought about it". (Participant 6)
Role model/modelling	The influence an individual can have on another.	"I was a positive role model and she decided she wanted to become an Indonesian teacher". (Participant 6)
Return on investment	The measure of reward compared to outlay, particularly, but not exclusively, in financial terms.	"I think when you're paying you tend to be a lot more motivated to get the most out of it". (Participant 8)
Brand awareness	The extent of consumer knowledge regarding products (both goods and services)	"Primarily I picked X university because everyone – I looked at Y university and Z university but

	available.	everyone in the industry for Indonesian says if you want to specialise in Asia you go to X university”. (Participant 6)
Workload	The volume of tasks the individual is expected to complete within a given timeframe.	“Masters is a hell of a lot more work than undergraduate. It’s a lot more work. I’m surprised by how busy I am”. (Participant 6)
Stress/struggling	The amount of pressure felt by the individual.	“Running like a headless chicken, trying to think”. (Participant 14)
Apprehension, fear of consequences	The individual being wary of the outcome of a particular course of action.	“I constantly get people emailing me from some company, that want my past essays. I don’t want to get sprung”. (Participant 12)
Awareness of profession	The extent of knowledge an individual has about a particular area.	“I wasn’t fully aware of planning as a profession when I entered uni, so at the time I wouldn’t have chosen an undergraduate degree because I didn’t actually know that there was a profession”. (Participant 7)
Distractors	Those factors which have the potential to move the individual off task.	“I think the access to things like social media and the internet creates a lot more distraction which is just harder to – it’s harder to focus on study”. (Participant 7)

Sacrifice	What the student has to forego in terms of meeting study demands.	You generally find that your social interaction and other things take a big hit.” (Participant 15)
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4.8 Explanation of Themes and Sub-themes

From the 56 codes three themes and two sub-themes were generated. The three key themes are job relatedness, learning propensity, and institutional reputation. Two subthemes external industry demand and internal psychic motivation indicate whether these pressures emanate from outside or within the individual with respect to job relatedness. These are evident in Table X where an abbreviated format is used to site that information within the table. This provides the reader with a ready point of access to visualise the patterning developed.

4.8.1 Job relatedness. The term job relatedness is defined as a phenomenon being distinctly connected to an individual’s employment. Codes contributing to this are designated JR in the results table. Where these pressures emanate from external forces such as industry bodies the identified subtheme is designated EID as indicated below. In some cases external and internal factors are twinned and these are designated E/I. Participants in the study were highly focused in this regard. Participant 15 demonstrated his determination:

“After I get my Masters, I could apply for a lot of the entry level or lower level epidemiology contracts, a lot of them come up through the state government and there are some, quite a few at the universities as well. But then if you get your PhD, you’re a lot more competitive and obviously having a bit of experience as well”.

4.8.2 Learning propensity. The term learning propensity is defined as a demonstrated desire on the part of the individual to be immersed in ongoing self-education. Codes contributing to this are designated LL. Participant 6 who moved to Canberra in order to take up a master’s course also had a part-time job in a school to assist with her expenses. But she clearly put in a tremendous effort in all her endeavours.

“That’s why life is exciting. I love education but I think that – I don’t know. Who knows what the future may bring. I’m excited by at X school I’ve got into the IB system – International Baccalaureate. That’s very new to me and

so far – and I am doing also in addition to that an online course – I’m a glutton for punishment”.

4.8.3 Institutional reputation. The term institutional reputation is defined as the standing of a tertiary provider in the international academic community. This can be enhanced through inclusion in one of the recognised established league tables such as the QS World University Rankings, the Shanghai Ranking, and the Times Higher Education World Ranking. Codes contributing to this are designated IR. A number of the participants were expressly concerned with the quality, or at least the perceived standing, of their chosen institution. Participant 12 made a deliberate decision to study at University X rather than University Y.

“What did I expect to gain? I think I was probably more going for the reputation. I don’t know if I was looking for – because I don’t really see a big difference between University X and University Y really, other than reputation. I think the quality is very high that comes out of University Y and what they’re producing and the research that they have, but yeah, it was more reputation I think”.

4.8.4 External industry demand. The term external industry demand is defined as those forces applied by the commercial sector on the tertiary education system with respect to the development of a skilled workforce. Codes contributing to this are designated EID. Participant 13 reflected on the pressures placed on him in the marketplace to undertake further study.

“The career goal initially was to transition to an OD [Organisational Development] career, which I did, and then I’ve discovered along the way that I wasn’t credible unless I had a range of qualifications behind me”.

4.8.5 Internal psychic motivation. The term internal psychic motivation is defined as the internal drive the individual has which leads to a specific course of action in terms of an individual’s career development. Codes contributing to this are designated IPM. Participant 7 was concerned with maximising her marketability to industry and motivated herself by strategizing accordingly.

“There’s a lot more competition for jobs when you graduate. So there’s a lot of pressure to do quite well at university and do internships and get experience beforehand, so you can place yourself in a better position”.

4.9 Summary of Findings

The data showed/researcher noted that all participants saw the pursuit of a master's coursework degree as job related and all had an ethical position (albeit varying) on the veracity of the use of such a degree. One third of participants were aware of shortcuts and of these all but one felt it was acceptable to acquire a fake degree for the purpose of career development, even though they stated they would not do it themselves. Emerging themes were job relatedness, learning propensity, and institutional reputation. These themes are shown schematically in the following diagram.

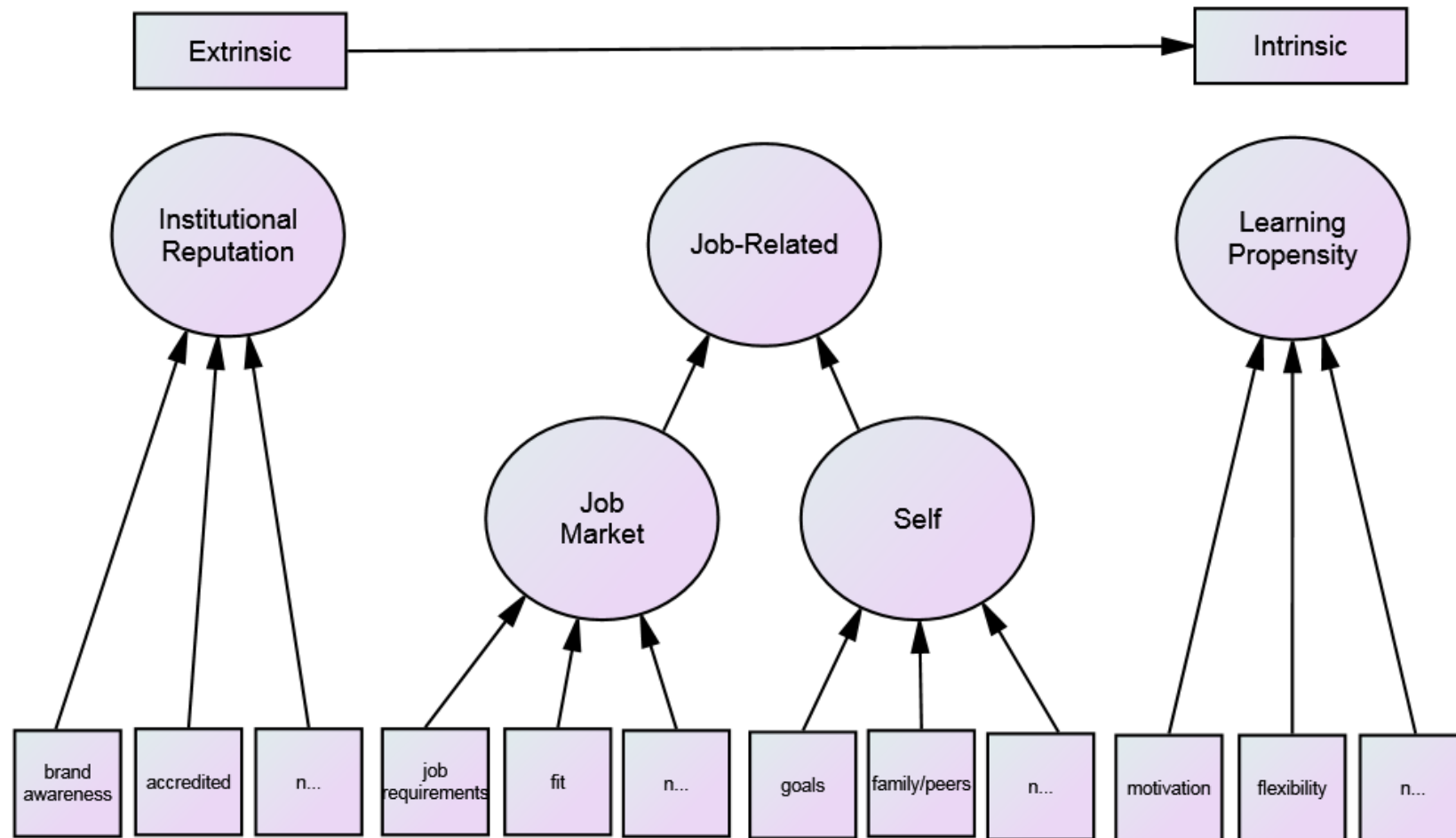


Figure 4. Conceptual diagram of the themes and a sample of codes.

The three identified themes (institutional reputation, job related, and learning propensity) are shown in the three upper circles. Above that is a continuum showing extrinsic to intrinsic factors as they relate to the three themes. The two circles below Job-Related are the subthemes external industry demand shown as Job Market and internal psychic motivation shown as Self. The boxes across the bottom show selected codes for each of the themes.

4.10 Discussion

4.10.1 Links to previous research. The conceptual diagram developed has some strong links to previous research. First, Johnston and Finney (2010) developed a three factor model of Basic Needs Satisfaction in General Scale. They identified a need for Autonomy (similar to my Self), a need for Competence (which links closely with my Job-Related – both Job Market and Self) and a need for Relatedness (again relating to my Self). My conceptual diagram has some broader dimensions in that it also specifically taps into the reputation of institutions and has a special emphasis on an individual's propensity for learning. Moreover, the diagrammatic format of Johnston and Finney's model has similarity in that it utilises three ellipses (I use circles) with a series of boxes placed underneath albeit with a different focus and reversed directional arrows. But the similarities are significant. The results of my interview data and this modelling have led to the inclusion of questions on basic psychological needs being incorporated into the questionnaire instrument used in Study 2.

Secondly there are strong links with the work of Rothwell et al. (2009) in investigating the responses of post-graduate students to their perception of employability. Their matrix contained axis labels of Self-belief (I recognise this as a dimension of Self in my labelled circle), My University (linking with my research finding on the significance of institutions), My Field of Study (identifying the specific academic discipline as did my interviewees), and the state of the external labour market which identifies closely with my Job Market.

In their model Rothwell et al. (2009) noted eight dimensions surround the central notion of "My ambition" albeit in descriptive mode. "My engagement with my studies and academic performance" links particularly with my model's Learning Propensity. "My perception of the strength of the university's brand" links closely with my model's

Institutional Reputation. “The reputation my university has within my field of study” has close links with some of my interviewees’ responses. For them branding contributed to perceived employment opportunities. “The status and credibility of my field of study” similarly relates to my findings. “The external labour market’s demand for people in my subject field” clearly relates to my Job Market. “My perceptions of the state of the external labour market” relates to My Job-Related as there are both external and internal elements, as does “My awareness of opportunities in the external labour market”. “My confidence in my skills and abilities” clearly relates to my Self. Thus, each of the eight elements in the Rothwell, Jewell and Hardie matrix relates to the elements identified in my model. This gives substantial support and credibility to the model I have developed and thus to the validity of my research. My model is clearly well placed in the quantum of good research.

4.10.2 Profile of interviewees. Reference to the table of listed codes provides the researcher with substantiation for a number of conclusions about the interviewees. All saw study through the prism of job relatedness. This is not surprising as the participants were selected on the basis of either completing, or having recently completed, a coursework master’s degree. That is, they all had university experience at the undergraduate level and had chosen to undertake further study. All of them were able to relate to a previous campus experience. Some had chosen to continue in this vein either as a full-time or part-time student. Others were pursuing distance education or online study whilst continuing in their employment. Some sought to use the further study as a pathway to gaining different employment. In selecting the 15 I was deliberately trying to get a wide range of experiences in this regard, bearing in mind that the purpose of the study was to explore possible outcomes so as to inform Study 2. Several had undertaken, or were completing, multiple masters’ degrees.

The high degree of commitment and professionalism evident was therefore a built-in bias by virtue of selection. In their specific areas of expertise the participants were well informed. The same could not be said about their degree of awareness re shortcuts. Some interpreted this as an individual being granted advanced standing on the basis of previous study: awareness of fake institutions was only recorded for one third of participants.

Many were aware of the reputation of a particular institution and this was a selection criterion for some: others were location, cost, and degree of support available. Two had chosen an MBA fast-track course from a private institution with the purpose of gaining an additional qualification that enhanced both their professional knowledge and improved employment prospects. In both cases they already held a master's degree from a traditional university.

An unanticipated result is the ethical position taken by the majority of male participants: they stated that they would not act unethically themselves in the pursuit of a fake qualification but had no problem with others doing so. "If you're willing to pay that money then go for it" said Participant 13. Caution must be exercised as the sample is very small but this ethical stance from any participant was unexpected.

4.11 Conclusion Regarding Study 1

The purpose of Study 1 was to ascertain whether or not the bank of surveys forming the questionnaire for Study 2 was adequate. The results suggest that some form of modification would be valuable as the questionnaire in its current form does not directly confront the respondent with the issue of acquiring and using a fake degree. Initially I thought that to do so might muddy the waters with respondents not prepared to answer honestly. The openness of participants in Study 1 with the unexpected revelation that such behaviour was sanctioned in others, leads me to review the initial perspective. Thus Study 2 needs to have some additional questions to the bank to probe this matter. Such a conclusion is a further justification for utilising a two-part study in the project, with rich data being the result of the semi-structured interview process. A thematic analysis of the data was the instrument which delivered this outcome: an alternative approach might not have. The researcher designed a new measure, the Academic Worth Scale (AWS), to accommodate probing the acquisition of a fake degree (see 5.3.5). Additionally, the model developed above (see Figure 4) and its links with previous research clearly indicated the need for the incorporation of questions on basic psychological needs: originally an unanticipated requirement. Therefore, being mindful of both this and additional length, the 24-item version of the Basic Psychological Needs Satisfaction and Frustration Scale – General Measure was added to the questionnaire.

CHAPTER 5: STUDY 2

5.0 The Online Survey to an International Sample

Study 2 involved administering an online survey comprising a suite of seven questionnaires. Six of the instruments were established measures, five of which were used in their entirety and one in part. The seventh instrument was constructed specifically for the current research.

5.1 Purpose

The purpose of Study 2 was to generate a theoretically informed model of the factors that might influence prospective students' considerations of taking shortcuts when pursuing academic postgraduate credentials.

5.2 Participants

5.2.1 Sourcing participants. Participants were drawn from an international sample, having been invited to be part of the study through internet access. An online survey platform that automatically solicits participants was used for the study (the University of Southern Queensland (USQ) Lime Survey platform). Additionally, USQ advertised the survey in its alumni newsletter. Participants could elect to participate in a draw for a Coles voucher to the value of \$A50 as an incentive to complete the survey.

Utilisation of the alumni newsletter of USQ to advertise for respondents meant that the survey link could be left open and a reminder email notification sent to potential respondents if necessary. Given an indicative incompleteness rate of around 40% (measured by monitoring the number of completed surveys against the number of hits on the site) the survey link was therefore kept open from mid-April to the end of July and this provided a second wave response to the initial batch, thus providing a very good total sample. The sample size was 756, more than meeting the initially projected required range of 400–500 prospective students for coursework masters' degrees and graduates of these programs.

5.2.2 Participants' Profile. There were $N = 756$ valid responses to the survey; $n = 354$ males (46.8%) and $n = 402$ females (53.2%). The survey offered respondents the option of "Other" for gender. No respondent used this option. The combined mean age was 55.65 ($N = 756$, $SD = 195.46$) and the modal age was 48. Five respondents answered this section inaccurately. One recorded an age of .44, a second 11, a third 99,

a fourth 1978 (possibly the year of birth), and a fifth 5055. There was a valid age range from 22 to 76 years. If these outliers were removed from the data set to calculate statistics for age, the combined mean dropped to 46.51 ($n = 751$, $SD = 39.48$). However, for the statistical profile $N = 756$ was retained as age was not considered to be of significance in the expression of values by respondents. Participants were sought internationally, but no attempt was made to gauge ethnicity. There were $N = 756$ responses for country of residence with 52 countries represented by respondents. Of these Australia was the most frequently recorded with 493 (65.2%) followed by Malaysia with 50 (6.6%), Canada with 25 (3.3%), and Singapore and Sri Lanka both with 15 (2.0% each). Other was 158 (21.0%). For country of birth $N = 756$. Two responses were inaccurate: one stated “not Australia” and the other stated “same”. Respondents represented 57 countries with the pattern of distribution being very similar to that of country of residence. Countries represented by the respondents’ first degree experience numbered 41 ($N = 756$) with 14 responses being inaccurate). Examples of inaccurate responses are “local state university” and “university”. Additionally, there were 76 responses which were unclear; for example, “Saint Michael’s College” with no further information as to its whereabouts or status. Not surprisingly, the home institution of the University of Southern Queensland was the most represented with 189 graduates. Stating the name of the institution also acted as a check as to whether the respondent was being truthful in answers. The title of the first degree and graduation dates also acted as check questions as to whether respondents were actually graduates: there was no attempt to categorize participants’ academic background areas. Graduation years ranged from 1967 to 2019 with a distribution of respondents not dissimilar to age.

5.3 Materials Planning

5.3.1 Constructing the questionnaire. Study 2 involved the administration of a multiple part online questionnaire to survey participants on the following: My views about qualifications; About me; Examinations; About my work; Academic standing and employability; My attitudes; and a Data section covering age, gender, country of origin, country of residence, qualifications held, institution(s), date of graduation; and email contact if permitted by respondent. As noted in Chapter 3 the questionnaire was administered through the University of Southern Queensland’s survey link:

<https://surveys.usq.edu.au/index.php/782598?lang=en> on the internet and the questions clearly probed the participants' academic backgrounds and their attitudes towards institutions. Also as noted before the focus of my research on fake credentials required questions relating to their ethical stances, the existence of fake tertiary institutions, and the use of fake credentials to be embedded in the questionnaire.

5.3.2 The HEXACO problem. As will become abundantly clear in the discussion below the exploration of the H factor lead to significant problems of length with the instrument being constructed while at the same time achieving the required depth in probing an individual's personality. Initially a three part questionnaire had been intended: the HEXACO-PI-R Self Report to test for the H factor (Lee & Ashton, 2004, 2012), Rothwell's graduate employability questionnaire (Rothwell et al., 2009), and an integrated Index of Self-Efficacy Scale (Law & Guo, 2015) with the Cheating Achievement Self-Efficacy Questionnaire (Umaru, 2013). After the completion of Study 1 it was evident that the intended three-part questionnaire was quite inadequate. From reviewing the interview data, it was clear that further exploration of an individual's psyche was required. The Basic Psychological Needs Satisfaction and Frustration Scale – General Measure was added to the questionnaire (B. Chen et al., 2015). However, this lengthened the questionnaire being developed. And there was still a need to probe further into attitudes about academic credentials requiring the construction of a new instrument. I needed to review the situation to strike a balance between the extent of probing and manageability of the final version by a respondent.

Close consideration was given to the 60-item version HEXACO-PI-R Self Report Form (Lee & Ashton, 2004) which is answered on a five-point Likert scale with anchors strongly disagree (1) and strongly agree (5). It contains items such as: "If I knew that I could never get caught, I would be willing to steal a million dollars" (Item 12); and "I'd be tempted to use counterfeit money, if I were sure I could get away with it" (Item 60). It also reveals attitudes regarding an individual's effort: "I do only the minimum amount of work needed to get by" (Item 32). (The alternative 100 item version contains all 60 items and an additional 40 items.) The 60-item version initially had significant appeal as it is much quicker to complete and is therefore more likely to engage the respondent to the point of completion. The H factor is substantially tested

for in the shorter version and noticeably subsequent work by Ashton and Lee has focussed on the 60-item version (see, for example, Lee & Ashton, 2012). The authors certainly believe that the shortened version is sufficiently rigorous. Therefore, for the purposes of this study the 60 item version was initially intended to be used. But I had reservations that a 60-item bank was still too long, particularly as the visual impression of such a block of items might be viewed negatively as just too much to do by a respondent. The findings of Study 1 regarding basic psychological needs also needed to be accommodated.

As the questionnaire was further developed it became abundantly clear that the final document would be extremely voluminous and not conducive to completion by respondents. Given the evolving length of an integrated questionnaire including even the 60-item version of HEXACO seemed off-putting. The 60-item version is available for consultation as Item 1 in Appendix C. The solution, or best option, was to find a shorter but significantly rigorous item bank which still captured the essence of Lee and Ashton's work. One is the Mini IPIP6, a short form six factor personality measure (Milojev et al., 2013; Sibley et al., 2011) discussed below. But first it was necessary to consider the 24-item Brief HEXACO Inventory (BHI) developed by De Vries (2013). The new short (he estimated 2-3 minutes for completion) and easy to comprehend items were written which represented the 24 HEXACO facets with 1 item per facet. He noted:

“...although characterized by relatively low alpha reliability, its test-retest stability, self-other agreement, and convergent correlations with full-length scales are relatively high and its validity loss is only modest. Correcting for attenuation using a weighted average of alpha reliability, test-retest stability, and self-other agreement, the BHI re-estimates the original construct validity correlations of the HEXACO-PI-R with relatively greater accuracy” (p.871).

His 24 questions still included the essential focus of my research: item 6 probed sincerity and item 12 specifically probed honesty/fairness. On balance utilization of this scale to contain the size of my questionnaire seemed a good solution. De Vries' BHI can be found as Item 2 in Appendix C. The 24 item BHI uses a five-point Likert scale with anchors strongly disagree (1) and strongly agree (5). Item 6 “I find it difficult to

lie” and item 12 “I would like to know how to make lots of money in a dishonest manner” have particular pertinence to my research.

Yet inclusion of the test verbatim for the sake of two items extended the length unjustifiably if an alternate way to test for these two dispositions could be found. It became clear to me that what I needed to do was explore the “darker” side of human nature where honesty and integrity are of little importance, the philosophical context of which was discussed in Chapter 3. The Dirty Dozen is a 12-item questionnaire developed and validated by Jonason and Webster (2010): to measure the Dark Triad. At face value this instrument seemed more focused and potentially more powerful than the BHI. For example, I would contend that statements such as “I tend not to be too concerned with morality or the morality of my actions” probe deeper than the BHI statement “I find it difficult to lie”. Therefore, the Dirty Dozen is the instrument I chose to specifically probe this facet. Yet the Big 6 remained an integral part of my thinking and the questionnaire was further strengthened with the inclusion of the Mini IPIP6 (Milojev et al., 2013; Sibley et al., 2011) noted above. This instrument is a short-form measure assessing extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and honesty-humility and is closely linked to the pioneering work of Ashton and Lee (Ashton, Lee, & Goldberg, 2007b).

5.3.3 The link to employability. Parallels between my model and that of Rothwell et al. (2009) were made in Chapter 4. The investigation by Rothwell et al. (2009) into self-perceived employability focused on postgraduate is clearly closely aligned to the current research in terms of the target participants. Moreover, employability and its relationship to credential acquisition was a key focus of mine in establishing the parameters of this research in Chapter 1. The section on Academic Standing and Employability used the Rothwell et al. (2009) instrument on self-perceived employability in its entirety.

5.3.4 Determining the treatment of self-efficacy. Here again there was a problem to achieve the required probing together with maintaining the integrity of the instruments to be used and the length of the suite of questionnaires being presented to respondents. Lent and Brown (2006) recommend that measures of self-efficacy be specific to the domain of behaviour. There is no specific measure for the behaviour that

is under investigation in the current study. Accordingly, it was originally intended that the self-efficacy measure for this study would be a combination of items from two scales, whereby appropriately worded items were selected. These were the Index of Self-Efficacy Scale (Law & Guo, 2015) and the Cheating Achievement Self-Efficacy Questionnaire (Umaru, 2013). This idea was discarded when I realised from conducting Study 1 that the concept of self-efficacy needed to be more fully explored. Clearly the notion of cheating with an associated value stance is highly relevant to my study. Therefore, I decided to retain part of that questionnaire (discussed in the Instruments/Measures section below) and to probe other options. Given the interest in links to employability occupational self-efficacy is highly relevant. This has been explored by Rigotti, Schyns, and Mohr (2008) and I opted to use their occupational self-efficacy scale again discussed in the next section.

Law and Guo (2015) developed a very useful Index of Sense of Self-Efficacy Scale (ISSES with the Cheating Achievement Self-Efficacy Questionnaire (Umaru, 2013). Close consideration of item content showed many distinct parallels with the Basic Psychological Needs and Frustration Scale (B. Chen et al., 2015). For example, the ISSES item 13 “I feel I cannot handle tasks successfully” is conceptually covered by item six of the BPNSF scale: “I have serious doubts about whether I can do things well”. I felt that I needed to make a choice between the two instruments. All the items on the BPNSF scale were relevant to the current project. In the case of the ISSE Scale some items were marginal to the current research, for example item eight “With the appropriate environment and opportunities, I would be able to stop using drugs”. Therefore, I opted for the BPNSF-GM scale. Both scales are available for perusal in the Appendices: the ISSES scale can be found as Item 3 in Appendix C; the BPNSF-GM is Item 8 in Appendix B.

5.3.5 Development of a new instrument. There were still specific aspects that needed to be probed, particularly in relation to an individual’s propensity to purchase a fake credential. I therefore decided that one instrument in the suite of questionnaires to be presented to respondents needed to be constructed from scratch. Furthermore, since this is central to the theme of the research it needed preeminent positioning so that if there were some drop-off in responses (some was anticipated) that this central plank

would be better preserved. I recognised that such a constructed instrument would need rigorous testing for validity and reliability and this is addressed in the Results and Discussion sections of this chapter. The new instrument was labelled the Academic Worth Scale (AWS).

5.4 Measures

5.4.1 The questionnaire format. Considerable attention was given to the matter of capturing the essence of the research purpose. I took the decision to use a suite of questionnaires which best met this requirement. The final document consisted of eight parts which used non-technical language sections for the respondent to engage with: My Views About Qualifications, About Me, Examinations, About My Work, Academic Standing and Employability, My Attitudes, My Life in General, and a Demographics section. Reference to the actual instruments I noted above were deliberately excluded in an effort to avoid being technical and possibly off-putting. As is evident in the preceding discussion considerable care was taken to avoid an image of bulkiness in any one section. Some respondents still commented on the length and the 57.89% completion rate was clearly partly a function of length. Nevertheless the 756 full responses provided an adequate sample for rigorous data analysis. The survey format is Item 1 in Appendix B.

5.4.2 Academic worth scale (AWS). (Section A: My Views About Qualifications). The new instrument was designed for the present research and consisted of 39 items. Respondents used a five-point Likert scale with anchors strongly disagree (1) and strongly agree (5) to state their position on a presented statement. It included items such as “The idea of a postgraduate qualification appeals to me” (Item 2) and “In the past I bought a degree that did not require any study” (Item 39). I was able to construct some items that in a mildly veiled form asked questions about the individual’s values. I felt this was an important aspect of the research. The questionnaire is provided as Item 2 in Appendix B. In the present sample the Cronbach alpha (a ubiquitous measure of the reliability of a scale) is given for each identified subscale in the results in section 5.6.2.

5.4.3 The Mini IPIP6. (Section B: About Me). This instrument used the Mini IPIP6 (Milojev et al., 2013; Sibley et al., 2011) in its entirety. It consisted of 24 items.

Respondents used a seven-point Likert scale with anchors very inaccurate (1) to very accurate (7) to state their position on a presented statement. It included statements such as “Have difficulty understanding abstract ideas” (Item 9) and “Would like to be seen driving around in a very expensive car” (Item 24). The Mini IPIP6 was used in its entirety. The questionnaire is provided for perusal as Item 3 in Appendix B. In the present sample the Cronbach alpha for each identified subscale is given in the results in section 5.6.5.

5.4.4 The cheating achievement self-efficacy questionnaire (CASEQ).

(Section C: Examinations). This instrument has been classified by the author as an inventory/questionnaire. The 21 item Cheating Achievement Self-Efficacy Questionnaire (Umaru, 2013) is presented in three sections: A: Cheating, B: Academic Achievement, and C: Academic Self-Efficacy. Sections B and C are couched specifically in terms of secondary school performance and other constructs in my questionnaire test for these dimensions. Therefore, under the section labelled Examinations in my questionnaire only the first 11 items of the Cheating section are used. The questionnaire uses a four point Likert scale of Always (A), Sometimes (S), Rarely (R) to Never (N) rated 4, 3, 2, 1 respectively on items such as “Cheating is encouraging since many people who cheat often escape punishment” (Item 8) and “I have the ability to successfully perform well” (Item 16). The factor structure of this scale was assessed using exploratory factor analysis. As was noted above the CASEQ was used selectively. The full questionnaire is provided for perusal as Item 4 in Appendix B. The Cronbach alpha is given in the results in section 5.6.6.

5.4.5 The occupational self-efficacy scale (OSES). (Section D: About my work). This scale relates individuals’ approaches to work to their self-efficacy. The six item short version of the occupational self-efficacy scale (Rigotti et al., 2008) uses a six point Likert scale with anchors not at all true (1) to completely true (6). Note there is no mid-point as such as the scale uses mostly and slightly as differentiators. Respondents indicate their position on each statement presented. Item examples are “I can remain calm when facing difficulties in my job because I can rely on my abilities” (Item 1) and “I feel prepared for most of the demands in my job”. Note each of the six items includes the phrasing “in my job”. The OSES questionnaire was used in its entirety. It is

provided for perusal as Item 5 in Appendix B. The Cronbach alpha is given in the results in section 5.6.7.

5.4.6 Student self-perceived employability scale (SSPES). (Section E: Academic Standing and Employability). Also, on the theme of employability but here relating it to academic credentials is the graduate employability questionnaire, the 16 item Student Self- Perceived Employability Scale (Rothwell et al., 2009). It uses a five-point Likert scale with anchors strongly disagree (1) and strongly agree (5). The 16 items are presented as a series of paired statements: eight items with “a” and “b” strands. The scale contains items such as “The status of this University is a significant asset to me in job seeking (Item 2b) and “My University has an outstanding reputation in my field(s) of study (Item 3b). These items probed the link between academic credentialism and employability and are highly relevant to the current research. The “b” strand statements focus on the perspective of the individual. The SSPES questionnaire was used in its entirety. It is provided for perusal as Item 6 in Appendix B. The Cronbach alpha is given in the results in section 5.6.8.

5.4.7 The dirty dozen (DD). (Section F: My Attitudes). As noted in the previous section the dirty dozen is a set of 12 items developed and validated by Jonason and Webster (2010) to measure the Dark Triad. The Dirty Dozen also uses a five-point Likert scale with anchors strongly disagree (1) and strongly agree (5). In addition to the example item cited above it includes statements such as “I have used deceit or lied to get my way”. It more than adequately encompasses the H dimension of HEXACO. The DD questionnaire was used in its entirety. It is provided for perusal as Item 7 in Appendix B. In the present sample the Cronbach alpha for each identified subscale is given in the results in section 5.6.9.

5.4.8 The basic psychological needs satisfaction and frustration scale (BPNSF-GM). (Section G: My Life in General). The Basic Psychological Needs Satisfaction and Frustration Scale developed by B. Chen et al. (2015) was also used to probe further into an individual’s personality. This scale consists of four need satisfaction items from each basic psychological need (autonomy, competence and relatedness) and four need frustration items from each of the three basic psychological needs. The instrument uses a five-point Likert scale with anchors not true at all (1) and

completely true (5) with items such as “I feel confident that I can do things well” and “I feel like a failure because of the mistakes I make”. The BPNSF-GM questionnaire was used in its entirety. It is provided for perusal as Item 8 in Appendix B. In the present sample the Cronbach alpha for each identified subscale is given in the results in section 5.6.10.

5.4.9 Demographics. (Section H: Demographics). In this section the respondents were asked to provide information on age, gender, country of residence, country of birth, the name and location of the university from which they earned their first degree, the title of the first degree, and the year of graduation of their first degree. Information regarding participants’ age, gender and country of residence has already been reported on in Section 5.2, Participants. Information regarding first degree and year of graduation was asked to ensure that the respondents were actually graduates and thereby for the most part had experiences of a university. This information was asked as a checkpoint rather than for statistical significance. Those who earned a degree online were not excluded: they still had valuable insights gained from a tertiary education experience. No respondent gave details about purchasing a fake first degree credential but the potential was there to filter out their responses had they done so. (Admissions of purchasing a fake credential may well have applied to a subsequent degree.) The demographics section probed information about the individual and their first institution experience but importantly anonymity was preserved. The last two items asked respondents if they wished to enter a random draw for a prize, in which case they needed to provide an email contact. Note they were not obliged to enter the draw and could simply click on the Close button to complete the survey at this point. Statistics on completion rates did not include the two items concerning the draw. The Demographics section which was included in the survey may be consulted on pages 6 and 7 of Item 1 in Appendix B.

5.5 Planning for Data Analysis

Two key facets in the planning of this research were to determine a sufficient sample size to deliver reliable and valid results, and what procedures should I, as the researcher, select to analyse the data.

5.5.1 Sample size. Sample size is constrained by a number of factors: manageability of the data collected, the time that the researcher has available, and cost (for example would a budget allow for paying for assistance). The importance of sample size determination is stressed by Anderson and Herr (1999) and Burkhardt and Schoenfeld (2003) noted the need for adequate sample size in conducting tests of hypotheses. Of particular significance in this research project is the comment by Hong (1998) that within a quantitative survey design determining sample size and dealing with nonresponse bias is essential. But sample size can also be critical with regard to the particular statistical procedures being used. For example, this research utilises both factor analysis and Structural Equation Modelling (SEM). Specific research regarding sample size has been conducted for both of these approaches. Where factor analysis is being applied in a research project a useful guideline to sample size is provided by Comrey and Lee. They noted 100 = poor, 200 = fair, 300 = good, 500 = very good, and 1000 = excellent (Comrey & Lee, 1992). This numerical determination is simplistic but the guideline is useful in indicating that a low sample size is definitely not good enough.

A more rigorous analysis is provided by MacCallum, Widaman, Zhang, and Hong (1999): in particular they argued as n increases sampling error will be reduced and the quality of factor analysis solutions will improve as communalities increase (p. 90). Studies have also been undertaken into the determination of sample size where Structural Equation Modelling (SEM) is used. For example, Wolf, Harrington, Clark, and Miller (2013) conducted a study with an upper target of 460 cases. This falls within the projected range for my research. Initially the intended range for this piece of research was between 300 and 500 cases. Allowing for some to be discarded for incompleteness, the resultant 300+ cases would provide a good sample.

5.5.2 The proposed statistical procedures. The questionnaire data was to be subjected to statistical analysis, using IBM'S SPSS (Statistical Package for the Social Sciences) and AMOS (Analysis of a MOment Structures: powerful structural equation modelling software from IBM). Descriptive statistics provide an overall perspective on the quality of the data with respect to compliance with assumptions of normality (e.g., skew and kurtosis). Where required, extreme scores (i.e., outliers) that contributed to skew or kurtosis were to be removed from the dataset. The construct validity of each

measure would be tested by Confirmatory Factor Analysis (CFA). This analysis would ensure that the questionnaires' factors (e.g., HEXACO) revealed in the present study's dataset are consistent with the original published versions. CFA is the measurement model for Structural Equation Modelling (SEM) and is calculated using IBM statistics and AMOS. In CFA researchers can specify the number of factors required in the data and which measured variable is related to which latent variable. The measurement and structural models would be adjudged according to published criteria suitable for the purposes of educational research (e.g., Meyers, Gamst, & Guarino, 2006; Schreiber, Nora, Stage, Barlow, & King, 2006). For example, the chi-square test would be used for absolute fit, along with Root Mean Square Error of Approximation (RMSEA) with a cut-off of $<.08$. Tests of relative fit would be used, such as the Tucker Lewis Index (TLI) and the Comparative Fit Index (CFI), with a cut-off of $>.95$.

Six of the seven questionnaires used had already been established as reliable and valid instruments by their respective developers and I accessed the relevant publications for each. However, the new instrument, the Academic Worth Scale (AWS), had no such previous verification. Therefore, it was necessary to subject the new instrument to rigorous testing. The method selected was to first use Principal Axis Factoring (PAF) followed by Confirmatory Factor Analysis (CFA). In using the PAF the selected rotation method was Oblimin with Kaiser Normalisation.

5.5.3 The decision to use PAF on the AWS. The 756 responses to study 2 produced a wealth of data. Principal Axis Factoring (PAF) is a technique which can be used to reduce a data set to a more manageable size while retaining as much of the original information as possible (Field, 2018). Other techniques can also do this, for example Principal Component Analysis (PCA) which is attractive as it is the default setting on SPSS (IBM's Statistical Package for the Social Sciences, a software platform offering advanced statistical analysis). However, purists would argue that PCA is not strictly factor analysis with disagreements about when it should be used (Costello & Osborne, 2005). Kline (1994) argues that PAF is identical to PCA but communalities of less than 1 are put in the diagonals of the correlation matrix thus delivering an advantage of eliminating error variance. While Kahn (2006) argued that it is a misconception to apply Kaiser's criterion with a factor-extraction method other than PCA, Costello and

Osborne (2005) reported that it is common usage to disregard this objection and apply the Kaiser criterion (all factors with eigenvalues greater than one). Furthermore, with the AWS instrument being based on theory PAF is a suitable technique to apply.

Therefore, I chose to subject the data set for the AWS to principal axis factoring (PAF).

5.5.4 Overview of steps in analysis. In the light of the foregoing discussion the approach I took to data analysis comprised eight conceptual steps. These were:

1. data screening.
2. presentation of statistical data (such as mean and standard deviation) for each of the seven measures.
3. principal axis factoring (PAF) of the AWS.
4. confirmatory factor analysis (CFA) of the AWS (steps 3 and 4 because the AWS is a new, untested measure).
5. confirmatory analysis of each of the other pre-established measures on a randomly split sample of 378 (50% of $n = 756$) to test for construct validity.
6. correlation measures for the pre-established measures (i.e. for the other measures without the AWS).
7. intercorrelations with the six factors derived from the AWS added to the factors previously correlated, and
8. consideration of structural models for the AWS.

Note discussion of the eight steps is interspersed as the measures are dealt with, and does not follow a strict order of the eight steps above.

5.6 Results

Data screening is discussed first as the data set was reduced. Statistical results apply to the modified data set and are presented in section 5.6, then discussed in section 5.7.

5.6.1 Data screening. The initial difficulties in obtaining a meaningful sample were overcome by inviting USQ alumni to respond. This method of gaining participants proved most productive, allowing me to apply rigor to the treatment of the data set. At the close of the questionnaire the total number of responses was 1306, however, perusal of the data set revealed a high number of incomplete responses. Due to the length of the questionnaire in the final suite of instruments used this was not unexpected. The

number of responses was well in excess of the initial target range (see discussion above) and therefore the number of incomplete responses was not a matter of concern to the researcher. The final section of the questionnaire was Demographics: the more valuable probing had been presented earlier.

I made the decision to assess the missingness of data by analysing responses to three specific elements: age, gender and occupational self-efficacy. Age and gender are demographic variables and therefore were located in the eighth and final section of the suite of questionnaires where they would be expected to deliver the highest recording of missingness. This number was 550 for each item. This represented 42.11% of the sample of 1306. Complete questionnaires were 756 or 57.89% of the sample. Occupational self-efficacy was located in the fourth section of the questionnaire – an approximate mid-point. There were 489 cases missing which represented 37.44% of the sample. Thus, at the approximate mid-point of the questionnaire, there were 817 completed responses or 62.56% of the sample. The number of 489 at this point, and a difference of only 61 cases between the approximate mid-point and end-point, suggests that the drop-off occurred relatively quickly. Given this, I was able to derive the benefit of a substantial sample size and made the decision that for further analysis I would only analyse the data set with complete data. Therefore, for further analysis $N = 756$.

5.6.2 My views about qualifications (Academic Worth Scale). This instrument contained 39 items. There were 756 valid responses. Respondents scored their views on a five-point Likert scale from 1 = strongly disagree to 5 = strongly agree. As this is a new instrument it required analysis for validity and reliability. Statistics are presented below. Six subscales were identified: for Entitlement the Cronbach $\alpha = .894$, for Decidedness $\alpha = .917$, for Shortcut Knowledge $\alpha = .878$, for Limited Effort/Ease of Completion $\alpha = .893$, for Lifestyle $\alpha = .679$, and for Prestige/Aspiration $\alpha = .793$. Given that an acceptable range for Cronbach α is often considered 0.7 to 0.8 (Field, 2018; Kline, 1994) these results are considered to be more than adequate with a number well above and the Lifestyle factor being only barely below. On the following pages two tables are presented. Table 3 provides a list of item numbers with item wording for easy referral. Table 4 presents the following statistics: the mean, median, mode, standard deviation, skew, standard error of skew, kurtosis, and standard error of

kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 3

Reference Chart for Item Content of AWS

Item No.	Text
1	Postgraduate qualifications are important in the world of work.
2	The idea of a postgraduate qualification appeals to me.
3	I admire people who have a postgraduate qualification.
4	My reputation would be enhanced by a postgraduate qualification.
5	I am interested in obtaining a postgraduate qualification.
6	I am willing to make financial sacrifices to obtain a postgraduate qualification.
7	I will allocate the time required to achieve a postgraduate degree.
8	Studying for a postgraduate qualification will satisfy my passion for learning.
9	My self-esteem will be enhanced by a postgraduate qualification.
10	The idea of letters after my name appeals to me.
11	I know other people with postgraduate qualifications.
12	Other people have encouraged me to get a postgraduate qualification.
13	I intend to explore postgraduate qualifications in my area of interest.
14	I have identified the best qualification for me.
15	I intend to apply for a postgraduate qualification.
16	I have decided to enrol in a postgraduate qualification.
17	I have decided when I will commence study for a postgraduate qualification.
18	I have chosen the institution from which I will obtain a postgraduate qualification.
19	I know that there are short-cut ways to get a postgraduate qualification.
20	I know that some postgraduate qualifications can be obtained with little time commitment.
21	I intend to seek out a postgraduate degree that can be obtained quickly.
22	I intend to find a postgraduate degree that can be obtained easily.
23	I have applied for entry into a postgraduate degree that requires little effort to obtain.
24	I just want the piece of paper.
25	I don't need to study. I just need the recognition.
26	Institution's reputation influenced my decision to obtain my last postgraduate qualification.
27	Institution's flexibility (e.g. online, distance) influenced my decision to obtain my last postgraduate qualification.
28	Study could fit into my lifestyle and work influenced my decision to obtain my last postgraduate qualification.
29	I was able to obtain sufficient finance influenced my decision to obtain my last postgraduate qualification.
30	It enhanced my employment prospects influenced my decision to obtain my last postgraduate qualification.
31	Personal satisfaction influenced my decision to obtain my last postgraduate qualification.
32	I knew that there were short-cut ways to get a postgraduate qualification.
33	I knew that some postgraduate qualifications could be obtained with little time commitment.
34	I intended to seek out a postgraduate degree that could be obtained quickly.
35	I intended to find a postgraduate degree that could be obtained easily.
36	I applied for entry into a postgraduate degree that required little effort to obtain.
37	I just wanted the piece of paper.
38	I didn't need to study. I just needed the recognition.
39	In the past I bought a degree that did not require any study.

Table 4
Statistics for AWS

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	4.11	4.00	4	.862	-.944	.089	.981	.178
2	4.42	5.00	5	.728	-1.557	.089	3.010	.178
3	4.14	4.00	5	.884	-.966	.089	.865	.178
4	4.11	4.00	5	.935	-.983	.089	.647	.178
5	4.05	4.00	4	.937	-.920	.089	.620	.178
6	3.77	4.00	4	1.011	-.637	.089	-.206	.178
7	4.12	4.00	4	.830	-1.112	.089	1.755	.178
8	4.19	4.00	4	.847	-1.231	.089	1.921	.178
9	3.88	4.00	4	1.000	-.844	.089	.342	.178
10	3.27	3.00	3	1.110	-.230	.089	-.529	.178
11	4.43	5.00	5	.705	-1.580	.089	4.176	.178
12	3.45	4.00	4	1.089	-.307	.089	-.621	.178
13	3.86	4.00	4	.995	-.708	.089	-.003	.178
14	3.76	4.00	4	1.012	-.548	.089	-.186	.178
15	3.46	3.00	3	1.113	-.303	.089	-.566	.178
16	3.22	3.00	3	1.197	-.051	.089	-.847	.178
17	3.08	3.00	3	1.236	.056	.089	-.958	.178
18	3.21	3.00	3	1.231	-.092	.089	-.947	.178
19	2.58	2.00	2	1.173	.325	.089	-.859	.178
20	2.47	2.00	2	1.134	.462	.089	-.695	.178
21	2.43	2.00	2	1.085	.403	.089	-.472	.178
22	2.35	2.00	2	1.062	.432	.089	-.498	.178
23	1.87	2.00	1	.887	.807	.089	.145	.178
24	1.60	1.00	1	.864	1.558	.089	2.229	.178
25	1.65	1.00	1	.895	1.468	.089	1.935	.178
26	3.54	4.00	4	1.059	-.511	.089	-.357	.178
27	4.42	5.00	5	.814	-1.831	.089	4.207	.178
28	4.22	4.00	4	.852	-1.370	.089	2.356	.178
29	3.68	4.00	4	1.119	-.718	.089	-.191	.178
30	3.91	4.00	4	1.042	-.963	.089	.510	.178
31	4.22	4.00	4	.837	-1.244	.089	1.828	.178
32	2.39	2.00	2	1.144	.482	.089	-.706	.178
33	2.34	2.00	2	1.131	.550	.089	-.635	.178
34	2.11	2.00	2	1.048	.726	.089	-.240	.178
35	2.03	2.00	2	1.013	.860	.089	.145	.178
36	1.82	2.00	1	.901	1.131	.089	1.107	.178
37	1.61	1.00	1	.896	1.678	.089	2.628	.178
38	1.64	1.00	1	.897	1.606	.089	2.550	.178
39	1.22	1.00	1	.587	3.493	.089	14.611	.178

N = 756

5.6.3 Principal axis factoring (PAF) on academic worth scale (AWS). The chosen extraction method was PAF with the selected rotation method being Oblimin with Kaiser Normalisation. PAF was then applied to the data set for AWS. Initially the factorability of the 39 AWS items was examined. The PAF was conducted with oblique rotation (direct oblimin). The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis $KMO = .869$, well above the acceptable limit of .5 (Field, 2018, p. 820). The scree plot graphing each factor against the associated eigenvalues (describing the shape of the data) indicated that the cut-off point for retaining factors was four and this was applied in the first instance. Table 5 on the following pages shows the factor loadings after rotation.

Table 5
Principal Axis Factoring Item Loadings

Item	Loadings							
	1	2	3	4	5	6	7	8
Studying for a postgraduate qualification will satisfy my passion for learning	.58							
I will allocate the time required to achieve a postgraduate degree	.57		0.31					
I am willing to make financial sacrifices to obtain a postgraduate qualification	.31		0.30					
I didn't need to study, I just needed the recognition		.90						
I just wanted the piece of paper		.86						
I don't need to study, I just need the recognition		.81						
I just want the piece of paper		.71						
In the past, I bought a degree that did not require any study		.39						
I have decided to enrol in a postgraduate qualification			0.97					
I have decided when I will commence study for a postgraduate qualification			0.94					
I have chosen the institution from which I will obtain a postgraduate qualification			0.85					
I intend to apply for a postgraduate qualification			0.83					
I intend to explore postgraduate qualifications in my area of interest			0.63					
I have identified the best qualification for me			0.60					
I am interested in obtaining a postgraduate qualification	.35		0.47					
I knew that there were short-cut ways to get a postgraduate qualification				0.92				
I know that some postgraduate qualifications can be obtained with little time commitments				0.80				
I knew that some postgraduate qualifications could be obtained with little time commitments				0.80				
I know that there are short-cut ways to get a postgraduate qualification				0.71				
I intend to find a postgraduate degree that can be obtained easily					0.90			
I intend to seek out a postgraduate degree that can be obtained quickly					0.87			
I intended to find a postgraduate degree that could be obtained easily					0.64			
I intended to seek out a postgraduate degree that could be obtained quickly					0.64			
I have applied for entry into a postgraduate degree that requires little effort to obtain					0.39			

I applied for entry into a postgraduate degree that required little effort to obtain	.39	0.39	
Study could fit into my lifestyle and work influenced my decision to obtain my last postgraduate qualification			.73
Institution's flexibility (e.g., online, distance) influenced my decision to obtain my last postgraduate qualification			.66
Personal satisfaction influenced my decision to obtain my last postgraduate qualification			.51
I was able to obtain sufficient finance influenced my decision to obtain my last postgraduate qualification			.40
I admire people who have a postgraduate qualification			0.69
My reputation would be enhanced by a postgraduate qualification			0.65
Postgraduate qualifications are important in the world of work			0.61
I know other people with postgraduate qualifications			0.48
It enhanced my employment prospects influenced my decision to obtain my last postgraduate qualification			0.47
The idea of a postgraduate qualification appeals to me			0.46
Other people have encouraged me to get a postgraduate qualification			0.46
My self-esteem will be enhanced by a postgraduate qualification			0.39
Institution's reputation influenced my decision to obtain my last postgraduate qualification		.37	0.38
The idea of letters after my name appeals to me			0.34

Note: The Pattern Matrix has been reduced to 2 decimal places so the width fits to an A4 page. This is an acceptable practice (see Nicol & Pexman, 2010). A suppression of .3 was used.

Cronbach's α s reported in 5.6.2 indicated internal consistency of the factors with one another. This leads to considering whether the items correlate with one another. Items were weeded out and clustered factors produced. The items that cluster suggest themes that determine the naming of factors. The pattern matrix showed eight possible groupings, but this was reassessed on the basis of some items having weak cross-loadings. Four items had a cross-loading with a difference of less than .15. These items were thus discarded. This decision left one sole item in the original Factor 1. This item was therefore also discarded rendering the Factor 1 of the initial set redundant. Similarly, the cross-loadings for one of the items in the eighth factor also had a very low difference (.07) leading to this item also being discarded. The remaining two items in this factor had loadings of .386 and .338 which were low readings. Discarding these

two items therefore dispensed with the original Factor 8. The remaining six factors provided appropriate data for analysis. These factors were then renumbered one to six and named. In the naming it was important to capture the essence of the set of items which constituted the factor. It was also important that there was a minimum of three items per factor to allow for meaningful analysis. The new set of factors was labelled as shown below.

Each of the six factors was examined to determine whether any of the items should be discarded.

5.6.3.1 Factor 1 Entitlement. This factor initially had five items. This was reduced to four as one had a loading of only .388. The other four had loadings $>.7$.

5.6.3.2 Factor 2 Decidedness. This factor had six items with loadings $>.6$ after the item with low cross-loadings had been discarded.

5.6.3.3 Factor 3 Shortcut knowledge. This factor had four items with loadings $>.7$.

5.6.3.4 Factor 4 Limited effort/ease of completion. This factor initially had six items. Two of these had loadings of .395 and .392 respectively. These were discarded. The remaining four items had loadings $>.64$.

5.6.3.5 Factor 5 Lifestyle. This factor initially had four items. One of these had a loading of .400. This was discarded. The remaining three items had loadings $>.51$

5.6.3.6 Factor 6 Prestige/aspiration. This factor had seven items with loadings $>.46$. Some consideration was given to increasing the cut-off to .47 which would have reduced the number of loadings by two. However, the content of these items was considered relevant in the context of the research and I made the decision to retain these items.

5.6.3.7 Summary of pattern matrix results. Analysis of the pattern matrix from principal axis factoring resulted in the reduction of possible groupings from eight and the naming of six factors with total loadings of 28. The new instrument then required confirmatory factor analysis to be applied.

5.6.4 Academic worth scale (AWS) measurement models. The AWS items and latent factors were subjected to Confirmatory Factor Analysis (CFA), with maximum likelihood estimation, to test three measurement models: an uncorrelated

factors model, a correlated factors model, and an amended correlated factors model in which non-significant paths among factors in the correlated model were removed. For CFA the data set was randomly divided into two by percentage, that is $n = 378$ cases for each group. This was a more than adequate sample with 300+ for each group.

Table 6 on the next page presents the goodness-of-fit indicators for these models. Just how well the models fit is addressed in the Discussion section at 5.7.1.

Table 6
Goodness-of-Fit Indicators for the Measurement Models of the AWS ($n = 378$)

Model	<i>df</i>	χ^2	TLI	CFI	RMSEA [CI90%]
Uncorrelated	351	1470.443*	797	811	.092 [.087, .097]
Correlated	336	1140.756*	847	864	.080 [.075, .085]
Amended Correlated	341	1144.340*	850	864	.079 [.074, .084]

* $p = .000$

Inspection of the factors' correlations revealed non-significant relations between Decidedness and Entitlement, Decidedness and Shortcut Knowledge, Decidedness and Limited Effort/Ease of Completion, Shortcut Knowledge and Lifestyle, Shortcut Knowledge and Prestige/Aspiration, Limited Effort/Ease of Completion and Lifestyle, and Limited Effort/Ease of Completion and Prestige/Aspiration. These non-significant paths were removed to create the amended correlated factors model. The difference between the correlated and amended correlated models was trivial. For ease of visualization, however, only the significant paths among factors in the amended correlated model are shown in Figure 5, the amended correlated model of the AWS. Also, for simplicity some terminology in naming the factors has been truncated in the diagram: Limited Effort/Ease of Completion is referred to as Ease_Effort, and Prestige/Aspiration simply as Aspiration. Figure 5 is presented on the next page.

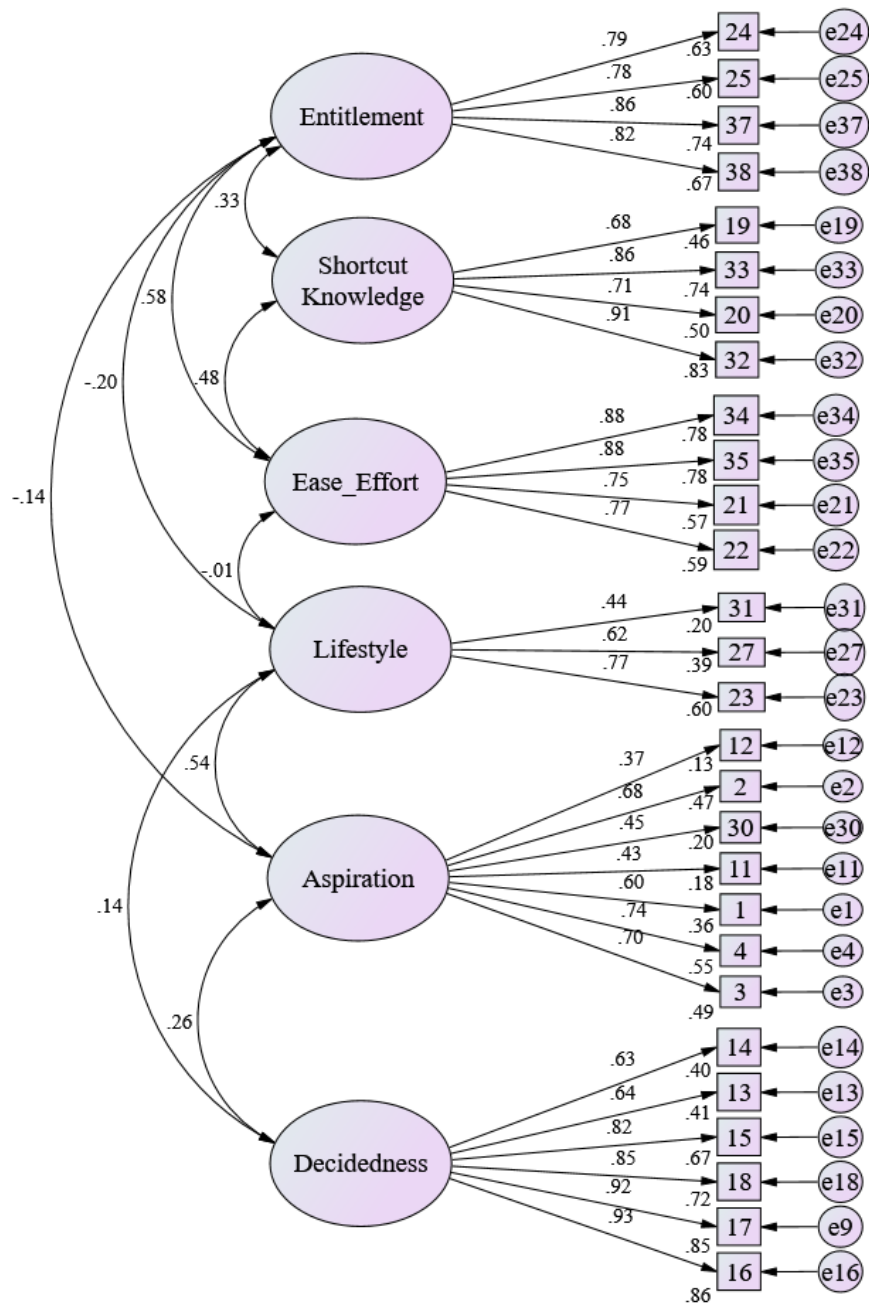


Figure 5. Amended correlated model of AWS showing only significant paths among factors. Note. All items' regression weights are significant.

5.6.5 Statistics for the mini ipip6. This instrument contained 24 items. There were 756 valid responses. Note 15 of the 24 items required re-scoring as the items were reversed. These were items 6, 7, 8, 9, 11, 12, 13, 15, 17, 18, 19, 20, and 21(Sibley et al., 2011). Six subscales were identified: for Extraversion the Cronbach $\alpha = .723$, for Agreeableness $\alpha = .705$, for Conscientiousness $\alpha = .675$, for Neuroticism $\alpha = .656$, for Openness $\alpha = .652$, and for Honesty $\alpha = .743$. Again, I would argue the Cronbach α figures are acceptable (see 5.6.2). On the following pages two tables are presented. Table 7 provides a list of item numbers with item wording for easy referral. Table 8 presents the following statistics: the mean, median, mode, standard deviation, skew, standard error of skew, kurtosis, and standard error of kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 7

Reference Chart for Item Content of Mini IPIP6

Item No.	Text
1	Am the life of the party.
2	Sympathize with others' feelings.
3	Get chores done right away.
4	Have frequent mood swings.
5	Have a vivid imagination.
6	Feel entitled to more of everything.
7	Don't talk a lot.
8	Am not interested in other people's problems.
9	Have difficulty understanding abstract ideas.
10	Like order.
11	Make a mess of things.
12	Deserve more things in life.
13	Do not have a good imagination.
14	Feel other's emotions.
15	Am relaxed most of the time.
16	Get upset easily.
17	Seldom feel blue.
18	Would like to be seen driving around in a very expensive car.
19	Keep in the background.
20	Am not really interested in others.
21	Am not interested in abstract ideas.
22	Often forget to put things back in their proper place.
23	Talk to a lot of different people at parties.
24	Would get a lot of pleasure from owning expensive luxury goods.

Table 8
Statistics for Mini IPIP6

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	3.37	4.00	4	1.574	-.024	.089	-1.037	.178
2	5.66	6.00	6	1.193	-1.525	.089	3.020	.178
3	4.91	5.00	6	1.526	-.671	.089	-.342	.178
4	3.27	3.00	2	1.608	.239	.089	-.947	.178
5	4.92	5.00	5	1.413	-.607	.089	-.112	.178
6	2.77	2.00	2	1.610	.659	.089	-.573	.178
7	3.80	4.00	5	1.663	-.044	.089	-.957	.178
8	2.96	3.00	2	1.671	.696	.089	-.299	.178
9	2.58	2.00	2	1.410	.785	.089	-.160	.178
10	5.19	6.00	6	1.476	-.815	.089	.104	.178
11	2.67	2.00	2	1.409	.718	.089	-.256	.178
12	3.52	4.00	4	1.674	.088	.089	-.837	.178
13	2.52	2.00	2	1.600	1.044	.089	.427	.178
14	5.41	6.00	6	1.280	-1.210	.089	1.644	.178
15	4.35	5.00	6	1.505	-.341	.089	-.707	.178
16	3.34	3.00	2	1.475	.268	.089	-.789	.178
17	4.05	4.00	3	1.648	.013	.089	-.986	.178
18	2.51	2.00	1	1.657	.852	.089	-.344	.178
19	4.06	4.00	5	1.531	-.114	.089	-.767	.178
20	2.59	2.00	2	1.405	.920	.089	.305	.178
21	2.57	2.00	2	1.390	.834	.089	.155	.178
22	2.86	2.00	2	1.700	.721	.089	-.614	.178
23	3.93	4.00	3	1.790	-.022	.089	-1.080	.178
24	2.78	2.00	1	1.690	.576	.089	-.835	.178

N = 756

5.6.6 Statistics for the cheating achievement self-efficacy questionnaire (CASEQ). The section of instrument which was used contained 11 items. There were 756 valid responses. The Cronbach $\alpha = .662$ (close to 0.7 and I would argue acceptable). Two tables are presented on the following page. Table 9 provides a list of item numbers with item wording for easy referral. Table 10 presents the following statistics: the mean, median, mode, standard deviation, skew, standard error of skew, kurtosis, and standard error of kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 9

Reference Chart for Item Content of CASEQ

Item No.	Text
1	If I have the opportunity to see the questions before the examination I will surely pass.
2	I cheat in examinations due to lack of confidence in myself.
3	I don't have enough time to read for examinations therefore I have an interest in cheating.
4	Cheating in examinations makes me feel guilty.
5	Cheating is not necessary if I have prepared well before the examination.
6	No matter how hard I prepare, if I don't cheat I will fail.
7	Some teachers encourage cheating during an examination.
8	Cheating is encouraged because many people who cheat often escape punishment.
9	I will cheat in an examination if my family give their support.
10	Family members encourage me to cheat.
11	Only people who cheat have high scores in internal and external examinations.

Table 10

Statistics for CASEQ

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	3.26	3.00	3	1.309	-.263	.089	-1.014	.178
2	1.23	1.00	1	.554	2.904	.089	10.127	.178
3	1.23	1.00	1	.584	3.157	.089	11.975	.178
4	4.34	5.00	5	1.017	-1.546	.089	1.841	.178
5	4.65	5.00	5	.751	-2.872	.089	9.512	.178
6	1.32	1.00	1	.784	3.018	.089	9.605	.178
7	1.52	1.00	1	.851	1.510	.089	1.537	.178
8	1.71	1.00	1	1.064	1.329	.089	.728	.178
9	1.17	1.00	1	.481	3.580	.089	16.019	.178
10	1.11	1.00	1	.384	4.020	.089	17.820	.178
11	1.29	1.00	1	.684	2.619	.089	7.295	.178

N = 756

5.6.7 Statistics for the occupational self-efficacy scale (OSES). This instrument contained six items. There were 756 valid responses. The Cronbach $\alpha = .903$ (highly acceptable). Two tables are presented on the following page. Table 11 provides a list of item numbers with item wording for easy referral. Table 12 presents the following statistics: the mean, median, mode, standard deviation, skew, standard

error of skew, kurtosis, and standard error of kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 11
Reference Chart for Item Content of OSES

Item No.	Text
1	I can remain calm when facing difficulties in my job because I can rely on my abilities.
2	When I am confronted with a problem in my job, I can usually find several solutions.
3	Whatever comes my way in my job, I can usually handle it.
4	My past experiences in my job have prepared me well for my occupational future.
5	I meet the goals that I set for myself in my job.
6	I feel prepared for most of the demands in my job.

Table 12
Statistics for OSES

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	5.02	5.00	5	.851	-1.383	.089	3.151	.178
2	5.10	5.00	5	.723	.1035	.089	3.037	.178
3	5.10	5.00	5	.731	-1.277	.089	4.036	.178
4	5.16	5.00	5	.800	-1.275	.089	3.045	.178
5	5.00	5.00	5	.728	-.707	.089	1.527	.178
6	5.05	5.00	5	.771	-1.126	.089	3.025	.178

n=756

5.6.8 Statistics for the student self-perceived employability scale (SSPES).

This instrument contained 16 items. There were 756 valid responses. The Cronbach α = .850 (highly acceptable). On the following page two tables are presented. Table 13 provides a list of item numbers with item wording for easy referral. Table 14 presents the following statistics: the mean, median, mode, standard deviation, skew, standard error of skew, kurtosis, and standard error of kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 13
Reference Chart for Item Content of SSPES

Item No.	Text
1	I achieve high grades in relation to my studies.
2	I regard my academic work as top priority.
3	Employers are eager to employ graduates from my University.
4	The status of this University is a significant asset to me in job-seeking.
5	Employers specifically target this University in order to recruit individuals from my subject area(s).
6	My University has an outstanding reputation in my field(s) of study.
7	A lot more people apply for my degree than there are places available.
8	My chosen subject(s) rank(s) highly in terms of social status.
9	People in the career I am aiming for are in high demand in the external labor market.
10	My degree is seen as leading to a specific career that is generally perceived as highly desirable.
11	There is generally a strong demand for graduates at the present time.
12	There are plenty of job vacancies in the geographical area where I am looking.
13	I can easily find out about opportunities in my chosen field.
14	The skills and abilities that I possess are what employers are looking for.
15	I am generally confident of success in job interviews and selection events.
16	I feel I could get any job so long as my skills and experience are reasonably relevant.

Table 14
Statistics for SSPES

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	3.94	4.00	4	.783	.536	.089	.346	.178
2	3.66	4.00	4	.869	.475	.089	.040	.178
3	3.28	3.00	3	.814	.005	.089	.720	.178
4	3.22	3.00	3	.936	-.097	.089	-.158	.178
5	2.89	3.00	3	.808	.004	.089	.968	.178
6	3.37	3.00	3	.828	-.090	.089	.427	.178
7	3.00	3.00	3	.773	.153	.089	1.323	.178
8	3.02	3.00	3	.968	-.234	.089	-.337	.178
9	3.44	3.00	4	.910	-.314	.089	-.157	.178
10	3.45	4.00	4	.931	-.408	.089	-.198	.178
11	3.33	3.00	3	.904	-.208	.089	-.181	.178
12	2.93	3.00	3	1.055	-.065	.089	-.639	.178
13	3.49	4.00	4	.941	-.699	.089	.101	.178
14	3.87	4.00	4	.776	-.735	.089	1.159	.178
15	3.62	4.00	4	.935	-.733	.089	.373	.178
16	3.72	4.00	4	.939	-.754	.089	.315	.178

N=756

5.6.9 Statistics for the dirty dozen (DD). This instrument contained 12 items. There were 756 valid responses. Three subscales were identified: for Machiavellianism the Cronbach $\alpha = .835$, for Psychopathy $\alpha = .767$, and for Narcissism $\alpha = .858$ (all good results). Two tables are presented below. Table 15 provides a list of item numbers with item wording for easy referral. Table 16 presents the following statistics: the mean, median, mode, standard deviation, skew, standard error of skew, kurtosis, and standard error of kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 15
Reference Chart for Item Content of DD

Item No.	Text
1	I tend to manipulate others to get my way.
2	I have used deceit or lied to get my way.
3	I have used flattery to get my way.
4	I tend to exploit others towards my own end.
5	I tend to lack remorse.
6	I tend to be unconcerned with the morality of my actions.
7	I tend to be callous or insensitive.
8	I tend to be cynical.
9	I tend to want others to admire me.
10	I tend to want others to pay attention to me.
11	I tend to seek prestige or status.
12	I tend to expect special favours from others.

Table 16
Statistics for DD

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	1.86	2.00	1	.894	.956	.089	.501	.178
2	1.53	1.00	1	.814	1.744	.089	2.944	.178
3	2.21	2.00	1	1.181	.521	.089	-1.077	.178
4	1.57	1.00	1	.785	1.438	.089	1.851	.178
5	1.50	1.00	1	.763	1.537	.089	1.822	.178
6	1.33	1.00	1	.635	2.165	.089	5.177	.178
7	1.47	1.00	1	.730	1.734	.089	3.279	.178
8	2.38	2.00	1	1.242	.366	.089	-1.165	.178
9	2.67	3.00	4	1.159	-.091	.089	-1.205	.178
10	2.56	3.00	3	1.115	.010	.089	-1.178	.178
11	2.31	2.00	1	1.123	.376	.089	-.970	.178
12	1.77	2.00	1	.905	1.085	.089	.629	.178

N=756

5.6.10 Statistics for the basic psychological needs satisfaction and frustration scale – general measure (BPNSF – GM). This instrument contained 24 items. There were 756 valid responses. Six subscales were identified: the for Autonomy Satisfaction the Cronbach $\alpha = .724$, for Autonomy Frustration $\alpha = .736$, for Relatedness Satisfaction $\alpha = .844$, for Relatedness Frustration $\alpha = .806$, for Competence Satisfaction $\alpha = .876$, and for Competence Frustration $\alpha = .823$ (again all good results). Two tables are presented below and on the following page. Table 17 provides a list of item numbers with item wording for easy referral. Table 18 presents the following statistics: the mean, median, mode, standard deviation, skew, standard error of skew, kurtosis, and standard error of kurtosis. Frequencies for each item if required can be obtained from the data files held at the University of Southern Queensland.

Table 17

Reference Chart for Item Content of BPNSF-GM

Item No.	Text
1	I feel a sense of choice and freedom in the things I undertake.
2	Most of the things I do feel like “I have to”.
3	I feel that the people I care about also care about me.
4	I feel excluded from the group I want to belong to.
5	I feel confident that I can do things well.
6	I have serious doubts about whether I can do things well.
7	I feel that my decisions reflect what I really want.
8	I feel that people who are important to me are cold and distant towards me.
9	I feel disappointed with many of my performance.
10	I feel my choices express who I really am.
11	I feel pressured to do too many things.
12	I feel close and connected with other people who are important to me.
13	I have the impression that people I spend time with dislike me.
14	I feel competent to achieve my goals.
15	I feel insecure about my abilities.
16	I feel I have been doing what really interests me.
17	My daily activities feel like a chain of obligations.
18	I experience a warm feeling with the people I spend time with.
19	I feel the relationships I have are just superficial.
20	I feel I can successfully complete difficult tasks.
21	I feel like a failure because of the mistakes I make.
22	I feel forced to do many things I wouldn't choose to do.
23	I feel connected with people who care for me , and for whom I care.
24	I feel capable at what I do.

Table 18

Statistics for BPNSF-GM

Item No.	Mean	Median	Mode	Std Deviation	Skew	Std Error of Skew	Kurtosis	Std Error of Kurtosis
1	3.84	4.00	4	.780	-.741	.089	1.194	.178
2	2.99	3.00	3	.913	.005	.089	-.423	.178
3	4.07	4.00	4	.810	-.719	.089	.426	.178
4	2.03	2.00	2	.938	.629	.089	-.222	.178
5	4.14	4.00	4	.682	-.837	.089	1.903	.178
6	2.00	2.00	2	.913	.857	.089	.406	.178
7	3.78	4.00	4	.763	-.886	.089	1.654	.178
8	1.76	2.00	1	.853	1.095	.089	1.109	.178
9	2.03	2.00	2	.898	.712	.089	.205	.178
10	3.77	4.00	4	.798	-.807	.089	1.186	.178
11	2.84	3.00	3	1.083	.095	.089	-.626	.178
12	4.01	4.00	4	.822	-.771	.089	.572	.178
13	1.78	2.00	1	.865	1.054	.089	.815	.178
14	4.12	4.00	4	.716	-.852	.089	1.783	.178
15	2.12	2.00	2	.975	.745	.089	.168	.178
16	3.84	4.00	4	.878	-.904	.089	1.021	.178
17	2.58	3.00	2	1.040	.252	.089	-.552	.178
18	4.00	4.00	4	.691	-.512	.089	.731	.178
19	2.01	2.00	2	.938	.814	.089	.304	.178
20	4.17	4.00	4	.659	-.691	.089	1.798	.178
21	2.00	2.00	2	.978	.398	.089	.415	.178
22	2.15	2.00	2	.970	.550	.089	-.271	.178
23	4.17	4.00	4	.775	-1.015	.089	1.723	.178
24	4.25	4.00	4	.659	-.792	.089	1.917	.178

N=756

5.6.11 Correlation measures.

Table 19 presents scale inter-correlations. Perusal of the table provides the statistical relationships between 24 factors derived from the data set. The first six of these items 1-6 (Entitlement, Decidedness, Shortcut Knowledge, Limited Effort, Lifestyle, and Prestige) are derived from the new instrument, the Academic Worth Scale (AWS). The second six, items 7-12 (Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, and Honesty/humility) are derived from the Mini IPIP6. Item 13 is derived from the Cheating Self-Efficacy Questionnaire (CASEQ), Item 14 from the Occupational Self-Efficacy Scale (OSES), and item 15 from the Student Self-perceived Employability Scale (SSPES). Items 16-18 (Machiavellianism, Psychopathy, and Narcissism) are derived from the Dirty Dozen. The last six of these items (Autonomy Satisfaction, Autonomy Frustration, Relatedness Satisfaction, Relatedness Frustration, Competence Satisfaction, and Competence Frustration) are derived from the Basic Psychological Needs Satisfaction and Frustration Scale – General Measure (BPNSF – GM). Cells in bold font = $p < .05$.

Moderate correlations were evident between a number of factors; for example, Autonomy_Satisfaction with Competence_Satisfaction ($r = .56$) and Autonomy_Frustration with Competence_Frustration ($r = .58$). Occupational Self-Efficacy correlated positively with Competence_Satisfaction ($r = .64$) and negatively with Competence_Frustration ($r = -.51$). Honesty_Humility correlated negatively with Cheating_Self-Efficacy ($r = -.24$). Such results are not surprising.

For readability the table is presented correct to two decimal places, in landscape format, on the next page.

Table 19
Scale Inter-correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1.	-																						
2.	-.05	-																					
3.	.30	.07	-																				
4.	.50	.02	.39	-																			
5.	-.18	.20	.00	-.04	-																		
6.	-.11	.30	.03	-.02	.39	-																	
7.	.00	.05	.05	.08	.06	.07	-																
8.	-.19	.08	-.11	-.11	.12	.13	.15	-															
9.	-.20	.11	-.08	-.17	.11	.13	.05	.18	-														
10.	.09	.00	-.05	.04	-.08	-.07	-.15	-.07	-.22	-													
11.	-.17	.09	.01	-.13	.17	.09	.12	.25	.09	-.06	-												
12.	-.25	-.09	-.22	-.25	.07	-.06	-.07	.23	.09	-.15	.16	-											
13.	.23	.06	.17	.17	-.03	-.06	-.02	-.12	-.06	.03	-.17	-.24	-										
14.	-.13	.15	-.03	-.09	.15	.19	.13	.11	.31	-.35	.20	.02	-.06	-									
15.	-.06	.22	.05	.04	.17	.36	.11	.04	.22	-.18	.02	-.15	.01	.33	-								
16.	.23	-.01	.20	.19	-.03	-.03	.16	-.25	-.23	.10	-.08	-.29	.26	-.12	-.05	-							
17.	.26	-.04	.17	.16	-.10	-.14	.00	-.40	-.26	.14	-.10	-.24	.28	-.17	-.12	.62	-						
18.	.21	-.03	.16	.23	.00	.10	.17	-.10	-.12	.17	-.07	-.45	.18	-.10	.07	.51	.37	-					
19.	-.20	.12	-.07	-.09	.20	.16	.23	.20	.24	-.34	.15	.04	-.06	.42	.35	-.08	-.14	.05	-				
20.	.24	.00	.08	.20	-.05	-.03	-.13	-.05	-.30	.37	-.14	-.25	.19	-.29	-.15	.18	.23	.23	-.39	-			
21.	-.21	.02	-.11	-.10	.16	.15	.20	.29	.22	-.29	.15	.22	-.15	.29	.20	-.18	-.24	-.09	.52	-.36	-		
22.	.28	.01	.16	.22	-.14	-.13	-.17	-.23	-.27	.35	-.16	-.35	.23	-.28	-.11	.23	.31	.24	-.35	.56	-.60	-	
23.	-.21	.10	-.07	-.12	.21	.16	.21	.18	.35	-.36	.28	.06	-.08	.64	.31	-.12	-.14	-.05	.56	-.36	.50	-.39	-
24.	.24	-.01	.08	.16	-.11	-.10	-.18	-.15	-.38	.46	-.21	-.15	.14	-.51	-.20	.16	.23	.15	-.43	.58	-.36	.59	-.65

Note. Bold font = $p < .05$. 1 = Entitlement, 2 = Decidedness, 3 = Shortcut Knowledge, 4 = Limited Effort, 5 = Lifestyle, 6 = Prestige, 7 = Extraversion, 8 = Agreeableness, 9 = Conscientiousness, 10 = Neuroticism, 11 = Openness, 12 = Honesty_Humility, 13 = Cheating Self-Efficacy, 14 = Occupational Self-Efficacy, 15 = Employability, 16 = Machiavellianism, 17 = Psychopathy, 18 = Narcissism, 19 = Autonomy_Satisfaction, 20 = Autonomy_Frustration, 21 = Relatedness_Satisfaction, 22 = Relatedness_Frustration, 23 = Competence_Satisfaction, 24 = Competence_Frustration

5.6.12 Multiple regression models. The amended correlated model of the AWS (see p.96) flagged six factors (Entitlement, Shortcut Knowledge, Limited Effort, Lifestyle, Aspiration and Decidedness). Of these the first three are most theoretically interesting apropos the research questions: Howitt and Cramer (2014) note that it is a legitimate practice to be selective, and multiple regression models were derived for each of these three. The research focus was to explore reasons why students may choose to purchase fraudulent credentials. Were individuals with lower levels of honesty/humility more likely to purchase a fake credential? Were individuals with a high self-efficacy for cheating more likely to purchase a fake credential? What are the factors that predict interest in such behaviours? The multiple regression models provide some clues in addressing these questions. Tables 20, 21 and 22 present multiple regression models for Entitlement, Shortcut Knowledge and Limited Effort. Each of the tables is structured with five groupings. Machiavellianism, Psychopathy, and Narcissism are traits which were derived from measuring the dark triad (Jonason & Webster, 2010) and are the components of group 1. Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, and Honesty/Humility are personality traits measured by the Mini IPIP6 (Milojev et al., 2013; Sibley et al., 2011) and are the components of group 2. Occupational self-efficacy and employability related to the intersection of an individual with the job market (Rigotti et al., 2008; Rothwell et al., 2009, respectively) and are the components of group 3. Autonomy Satisfaction, Autonomy Frustration, Relatedness Satisfaction, Relatedness Frustration, Competence Satisfaction, and Competence Frustration are measures derived from the Basic Psychological Needs Satisfaction and Frustration Scale – General Measure (B. Chen et al., 2015) and are the components of group 4. Cheating Self-efficacy (Umaru, 2013) relates to behaviour of significance to the research focus and is the single item in group 5. Of particular interest in each table are column 5 ($p < .05$) and column 3 (β , the standardized weighting) and these are reported on below. The results are presented in the three tables on the following pages and discussed in section 5.7.3.

Table 20
Multiple Regression Model of Entitlement.

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	CI95% LL	CI95% UL
(Constant)	.936	.088		10.653	.000	.764	1.109
Machiavellianism	.067	.049	.067	1.380	.168	-.028	.163
Psychopathy	.205	.053	.171	3.844	.000	.100	.309
Narcissism	.097	.034	.115	2.823	.005	.029	.164
<i>R</i> = .289, <i>R</i> ² = .04, Adj. <i>R</i> ² = .080, <i>SE</i> = .729, <i>F</i> (3,752) = 22.884, <i>p</i> = .000							
(Constant)	3.489	.262		13.331	.000	2.975	4.003
Extraversion	.016	.022	.026	.733	.464	-.027	.060
Agreeableness	-.071	.028	-.092	-2.490	.013	-.126	-.015
Conscientiousness	-.108	.025	-.155	-4.329	.000	-.157	-.059
Neuroticism	.011	.025	.015	.426	.670	-.038	.060
Openness	-.083	.027	-.108	-3.018	.003	-.136	-.029
Honesty/humility	-.116	.022	-.190	-5.248	.000	-.159	-.073
<i>R</i> = .339, <i>R</i> ² = .115, Adj. <i>R</i> ² = .108, <i>SE</i> = .718, <i>F</i> (6,749) = 16.256, <i>p</i> = .000							
(Constant)	2.474	.255		9.720	.000	1.974	2.974
Occupational Self-Efficacy	-.143	.046	-.118	-3.080	.002	-.234	-.052
Employability	-.037	.059	-.024	-.624	.533	-.153	.079
<i>R</i> = .128, <i>R</i> ² = .016, Adj. <i>R</i> ² = .014, <i>SE</i> = .756, <i>F</i> (2,753) = 6.275, <i>p</i> = .002							
(Constant)	1.733	.364		4.764	.000	1.019	2.448
Autonomy Satisfaction	-.073	.058	-.057	-1.252	.211	-.187	.041
Autonomy Frustration	.092	.047	.090	1.965	.050	.000	.183
Relatedness Satisfaction	-.006	.060	-.005	-.094	.925	-.124	.113
Relatedness Frustration	.180	.057	.169	3.169	.002	.068	.291
Competence Satisfaction	-.098	.069	-.075	-1.417	.157	-.234	.038
Competence Frustration	.009	.057	.009	.156	.876	-.103	.120
<i>R</i> = .314, <i>R</i> ² = .099, Adj. <i>R</i> ² = .092, <i>SE</i> = .725, <i>F</i> (6,749) = 13.676, <i>p</i> = .000							
(Constant)	.578	.165		3.499	.000	.254	.902
Cheating Self-Efficacy	.504	.079	.228	6.422	.000	.350	.658
<i>R</i> = .228, <i>R</i> ² = .052, Adj. <i>R</i> ² = .051, <i>SE</i> = .741, <i>F</i> (1,754) = 41.244, <i>p</i> = .000							

Table 21
Multiple Regression Model of Shortcut Knowledge.

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	CI95% LL	CI95% UL
(Constant)	1.813	.115		15.813	.000	1.588	2.038
Machiavellianism	.155	.064	.120	2.439	.015	.030	.281
Psychopathy	.104	.069	.068	1.496	.135	-.032	.240
Narcissism	.078	.045	.072	1.741	.082	-.010	.166
<i>R</i> = .217, <i>R</i> ² = .047, Adj. <i>R</i> ² = .043, <i>SE</i> = .952, <i>F</i> (3,752) = 13.332, <i>p</i> = .000							
(Constant)	3.937	.344		11.460	.000	3.262	4.611
Extraversion	.025	.029	.032	.867	.386	-.032	.083
Agreeableness	-.075	.037	-.077	-2.029	.043	-.149	-.002
Conscientiousness	-.066	.033	-.074	-2.006	.045	-.130	-.001
Neuroticism	-.081	.033	-.091	-2.468	.014	-.146	-.017
Openness	.057	.036	.059	1.590	.112	-.013	.128
Honesty/Humility	-.168	.029	-.216	-5.807	.000	-.225	-.111
<i>R</i> = .262, <i>R</i> ² = .068, Adj. <i>R</i> ² = .061, <i>SE</i> = .943, <i>F</i> (6,749) = 9.168, <i>p</i> = .000							
(Constant)	2.398	.328		7.322	.000	1.755	3.041
Occupational Self-Efficacy	-.076	.060	-.049	-1.281	.201	-.194	.041
Employability	.129	.076	.065	1.692	.091	-.021	.278
<i>R</i> = .067, <i>R</i> ² = .005, Adj. <i>R</i> ² = .002, <i>SE</i> = .972, <i>F</i> (2,753) = 1.721, <i>p</i> = .180							
(Constant)	2.387	.484		4.933	.000	1.437	3.337
Autonomy Satisfaction	-.034	.077	-.021	-.437	.662	-.186	.118
Autonomy Frustration	-.004	.062	-.003	-.064	.949	-.126	.118
Relatedness Satisfaction	-.029	.080	-.019	-.364	.716	-.187	.128
Relatedness Frustration	.205	.076	.150	2.713	.007	.057	.353
Competence Satisfaction	-.004	.092	-.002	-.040	.968	-.185	.177
Competence Frustration	-.028	.076	-.022	-.366	.715	-.176	.121
<i>R</i> = .159, <i>R</i> ² = .025, Adj. <i>R</i> ² = .017, <i>SE</i> = .964, <i>F</i> (6,749) = 3.232, <i>p</i> = .004							
(Constant)	1.429	.214		6.685	.000	1.009	1.848
Cheating Self-Efficacy	.490	.102	.173	4.828	.000	.291	.690
<i>R</i> = .2173, <i>R</i> ² = .030, Adj. <i>R</i> ² = .029, <i>SE</i> = .959, <i>F</i> (1,754) = 23.306, <i>p</i> = .000							

Table 22
Multiple Regression Model of Limited Effort.

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	CI95% LL	CI95% UL
(Constant)	1.541	.107		14.459	.000	1.332	1.750
Machiavellianism	.070	.059	.057	1.177	.240	-.047	.186
Psychopathy	.086	.065	.060	1.327	.185	-.041	.213
Narcissism	.180	.042	.179	4.329	.000	.098	.262
<i>R</i> = .248, <i>R</i> ² = .062, Adj. <i>R</i> ² = .058, <i>SE</i> = .885, <i>F</i> (3,752) = 16.428, <i>p</i> = .000							
(Constant)	3.983	.317		12.569	.000	3.361	4.606
Extraversion	.065	.027	.086	2.389	.017	.012	.118
Agreeableness	-.025	.034	-.027	-.733	.464	-.093	.042
Conscientiousness	-.123	.030	-.147	-4.061	.000	-.182	-.063
Neuroticism	-.013	.030	-.016	-.437	.662	-.073	.046
Openness	-.078	.033	-.085	-2.348	.019	-.143	-.013
Honesty/Humility	-.152	.027	-.208	-5.698	.000	-.205	-.100
<i>R</i> = .310, <i>R</i> ² = .096, Adj. <i>R</i> ² = .089, <i>SE</i> = .870, <i>F</i> (6,749) = 13.319, <i>p</i> = .000							
(Constant)	2.614	.305		8.559	.000	2.014	3.214
Occupational Self-Efficacy	-.169	.056	-.117	-3.045	.002	-.279	-.060
Employability	.140	.071	.076	1.970	.049	.000	.279
<i>R</i> = .116, <i>R</i> ² = .013, Adj. <i>R</i> ² = .011, <i>SE</i> = .906, <i>F</i> (2,753) = 5.149, <i>p</i> = .006							
(Constant)	1.317	.445		2.960	.003	.443	2.190
Autonomy Satisfaction	.002	.071	.002	.032	.974	-.137	.142
Autonomy Frustration	.142	.057	.117	2.500	.013	.031	.254
Relatedness Satisfaction	.119	.074	.083	1.614	.107	-.026	.264
Relatedness Frustration	.256	.069	.200	3.685	.000	.120	.392
Competence Satisfaction	-.089	.085	-.057	-1.056	.291	-.256	.077
Competence Frustration	-.034	.069	-.028	-.486	.627	-.170	.103
<i>R</i> = .248, <i>R</i> ² = .062, Adj. <i>R</i> ² = .054, <i>SE</i> = .887, <i>F</i> (6,749) = 8.187, <i>p</i> = .000							
(Constant)	1.288	.200		6.432	.000	.895	1.681
Cheating Self-Efficacy	.453	.095	.171	4.757	.000	.266	.640
<i>R</i> = .171, <i>R</i> ² = .029, Adj. <i>R</i> ² = .028, <i>SE</i> = .899, <i>F</i> (1,754) = 22.629, <i>p</i> = .000							

5.7 Discussion

The results of Study 2 provided good material for discussion. In terms of content there are some valuable insights into the nature of personality and the relationship between personality and an individual's actions which might be deemed unethical. The conclusions drawn are interesting insights. Methodologically the study encountered a number of problem areas and these need to be addressed first.

5.7.1 Commentary on the model fit. There is a range of Fit Statistics commonly reported for CFA and SEM. These include χ^2 (Chi Square), TLI (Tucker Lewis Index), CFI (Comparative Fit Index), and RMSEA (Root Mean Square Error of Approximation) all of which were reported in Table 6. The χ^2 result is not particularly helpful as with a large number of degrees of freedom (ranging from 336 to 351 for the three models) it simply reports as statistically significant. While it has been the traditional measure for evaluating overall model fit (and hence reported for this study), due to its restrictiveness researchers have sought alternative indices to assess model fit (Hooper et al., 2008). The TLI is below the accepted cut-off of .95 for good fit although reference to Table 6 shows it rises from .797 for the uncorrelated model, to .847 for the correlated model, to .850 for the amended correlated model. What is considered an adequate fit as distinct from a good one is subjective. Similarly, a CFI for a good fit is considered to be greater than .90. A similar pattern to the TLI emerged: for the uncorrelated model CFI = .811, and for both the correlated model and the amended correlated model CFI = .864. Again what constitutes an acceptable fit is subjective. The interesting measure to me is the RMSEA.

Kenny, Kaniskan, and McCoach (2015) note that RMSEA is currently one of the most popular measures of goodness-of-model fit within Structural Equation Modelling (SEM). As its popularity has increased the statistical cut-off points have become much tighter thus requiring some discussion of the figures reported in Table 6 (.092 for the uncorrelated model, .080 for the correlated model, and .079 for the amended correlated model). Hooper et al. (2008) noted that recommendations for RMSEA cut-off points have been considerably reduced in the last fifteen years: up until the early nineties an RMSEA of between 0.08 and 1.0 was considered a mediocre fit. Now the "gold standard" for the cut-off point is considered .05 (F. Chen, Curran, Bollen, Kirby, &

Paxton, 2008) with a lower figure of 0.08 deemed just acceptable (Van de Schoot, Lugtig, & Hox, 2012). The amended correlated model scrapes in to the acceptable range: a moderate result. However, having stated that, two comments are pertinent. First MacCallum, Browne, and Sugawara (1996) noted that a point estimate of fit is imprecise to some degree. Secondly there is published evidence of researchers using higher cut-off points. A 2012 study on consumer's environmental concern, for example, reported RMSEA = .136 (Shah & Pillai, 2012) and claimed that this was "moderately acceptable". More recently a 2019 report on the Edinburgh Postnatal Depression Scale (Hada et al., 2019) noted studies with RMSEA's which ranged from 0.00 to 0.10 and concluded that the fit of the factor structure model was "only modest". Such results lend support to the credibility of my model in the amended correlated version with an RMSEA = .079.

5.7.2 Discussion of inter-correlations. This discussion is concerned with the data displayed in Table 19. Cells in bold font = $p < .05$. Cells are referred to as coordinates: e.g. the intersection of Decidedness and Honesty Humility is Cell 2,12. Perusal of the chart reveals the highest correlation obtained was -.65 for Competence Satisfaction, Competence Frustration (Cell 23,24). This is not surprising as both these factors are dimensions of the one element, competence. What was surprising to me is the relatively low level of correlations overall. Of the total number of data cells in the chart (276) there were only four instances of readings $> .6$, and only a total of thirteen $> .5$. On the other hand, there were sixty-one $< .1$ which did not meet the significance level of $p < .05$, and a further sixty-one that did meet this significance requirement but were in the range $.20 < x < .30$. The best that can be argued is that there were some moderate inter-correlations. For example, Occupational Self-Efficacy and Competence Satisfaction had a reading of .64 (Cell 14,23) and Honesty Humility related negatively with Narcissism with a reading of -.45 (Cell 12,18).

The figures are particularly interesting in relation to decidedness: the inter-correlations for this factor ranged from .00 to .30. Decidedness, Prestige (Cell 2,6) had a reading of .30 but this was the only reading $> .22$ (Decidedness, Occupational Self-Efficacy: Cell 2,15). Eleven of the twenty-three cells had readings $< .10$. I would have expected decidedness to be a factor that would statistically relate to other factors.

Overall correlations were moderate at best but indicative in the right direction with respect to the model. The multiple regression models are more informative, as is evident in section 5.7.3.

5.7.3 Discussion of multiple regression models. Perusal of Table 20 provides the following results. From group 1 Entitlement is predicted by Psychopathy ($p = .000$) and Narcissism ($p = .005$), but not Machiavellianism ($p = .168$). The β weighting is positive for both Psychopathy ($\beta = .171$) and Narcissism ($\beta = .115$) so we can conclude that to a moderate degree psychopathy and narcissism act as predictors of a sense of entitlement.

From group 2 Entitlement is predicted by Agreeableness ($p = .013$), Conscientiousness ($p = .000$), Openness ($p = .003$), and Honesty Humility ($p = .000$); but not Extraversion ($p = .464$) or Neuroticism ($p = .670$). The β weighting is negative for all four predictors: Agreeableness ($\beta = -.092$), Conscientiousness ($\beta = -.155$), Openness ($\beta = -.108$), and Honesty Humility ($\beta = -.190$). From this it is reasonable to predict that the more an individual is agreeable, conscientious, open, and honest, the less that person will feel a sense of entitlement.

From group 3 Entitlement is predicted by Occupational Self-Efficacy ($p = .002$), but not Employability ($p = .533$). The β weighting for Occupational Self-Efficacy is negative ($\beta = -.118$) suggesting that the more an individual feels able to successfully perform a behaviour at work the less that individual will feel a sense of entitlement.

From group 4 Entitlement is predicted by Autonomy Frustration ($p = .050$, which can be considered just acceptable), and Relatedness Frustration ($p = .002$); but not Autonomy Satisfaction ($p = .211$), Relatedness Satisfaction ($p = .925$), Competence Satisfaction ($p = .157$), or Competence Frustration ($p = .876$). The β weighting is positive for both Autonomy Frustration ($\beta = .090$) and Relatedness Frustration ($\beta = .169$) suggesting that the more frustrated an individual feels the greater is the sense of entitlement.

From group 5 Entitlement is predicted by Cheating Self-Efficacy ($p = .000$). The β weight is positive ($\beta = .228$). This is the highest β value in the table: Cheating Self-Efficacy is a strong predictor of a sense of Entitlement.

Perusal of Table 21 provides the following results. From group 1 Shortcut Knowledge is predicted by Machiavellianism ($p = .015$), but not by Psychopathy ($p = .135$), or Narcissism ($p = .082$). The β weighting is positive for Machiavellianism ($\beta = .120$) suggesting that a person who exhibits Machiavellian tendencies is more likely to be interested in Shortcut Knowledge.

From group 2 Shortcut Knowledge is predicted by Agreeableness ($p = .043$), Conscientiousness ($p = .045$), Neuroticism ($p = .014$), and Honesty Humility ($p = .000$); but not Extraversion ($p = .386$), or Openness ($p = .112$). The β weighting is negative for all four predictors: Agreeableness ($\beta = -.077$), Conscientiousness ($\beta = -.074$), Neuroticism ($\beta = -.091$), and Honesty Humility ($\beta = -.216$). There is a strong negative result here for Honesty Humility suggesting that the more honest a person is, the less likely there would be an interest in Shortcut Knowledge. On these results the traits of Agreeableness, Conscientiousness, and Neuroticism also predict a disinterest in Shortcut Knowledge, but not as strongly as Honesty Humility does.

From group 3 neither Occupational Self-Efficacy ($p = .201$), or Employability ($p = .091$) predict shortcut knowledge; that is holding the belief that an individual can successfully perform a behaviour at work does not predict Shortcut Knowledge. Whether there is a reverse directional predictability is an interesting point which is not addressed by this model.

From group 4 Shortcut Knowledge is predicted by Relatedness Frustration ($p = .007$); but not Autonomy Satisfaction ($p = .662$), Autonomy Frustration ($p = .949$), Relatedness Satisfaction ($p = .716$), Competence Satisfaction ($p = .968$), or Competence Frustration ($p = .715$). The β weighting for Relatedness Frustration is positive ($\beta = .150$). This is interesting. Relatedness Frustration is a predictor of Shortcut Knowledge, but not Autonomy Frustration or Competence Frustration. Does this imply that the behaviour is driven by perceived externalities and not by reflections on self?

From group 5 Shortcut Knowledge is predicted by Cheating Self-Efficacy ($p = .000$). The β weighting is positive ($\beta = .173$). Such a result is not unexpected.

Perusal of Table 22 provides the following results. From group 1 Limited Effort is predicted by Narcissism ($p = .000$), but not by Machiavellianism ($p = .240$), or

Psychopathy ($p = .185$). The β weighting is positive for Narcissism ($\beta = .179$) suggesting that to a moderate degree Narcissism is a predictor of Limited Effort.

From group 2 Limited Effort is predicted by Extraversion ($p = .017$), Conscientiousness ($p = .000$), Openness ($p = .019$), and Honesty Humility ($p = .000$); but not by Agreeableness ($p = .464$) or Neuroticism ($p = .662$). The β weighting for Extraversion is positive ($\beta = .086$) suggesting that the degree of extraversion a person has, is a predictor of the extent to which effort to achieve a task might be curtailed; that in cases of a high degree of extraversion the individual might operate on bluster. The β weighting is negative for the other three significant factors: Conscientiousness ($\beta = -.147$), Openness ($\beta = -.085$), and Honesty Humility ($\beta = -.208$). Again Honesty Humility records a fairly strong reading; predicting that the more honest a person is, the less likely it is that the individual will look for means to limit effort. Conscientiousness and Openness are also predictors of this, but not as strongly.

From group 3 Limited Effort is predicted by both Occupational Self-Efficacy ($p = .002$) and Employability ($p = .049$). In the case of Occupational Self-Efficacy the β weighting is negative ($\beta = -.117$) suggesting that the more an individual believes that a behaviour can be successfully performed, the less likely it is that the person will limit effort. For employability the β weighting is positive ($\beta = .076$), but this is a weak result suggesting that Employability is not a strong predictor of limiting effort.

From group 4 Limited Effort is predicted by Autonomy Frustration ($p = .013$) and Relatedness Frustration ($p = .000$); but not Autonomy Satisfaction ($p = .974$), Relatedness Satisfaction ($p = .107$), Competence Satisfaction ($p = .291$), or Competence Frustration ($p = .627$). The β weighting is positive for both Autonomy Frustration ($\beta = .117$) and Relatedness Frustration ($\beta = .200$) suggesting that the more frustrated an individual feels the greater is the sense of limiting effort, but interestingly not reflecting on the individual's own competencies.

From group 5 Limited Effort is predicted by Cheating Self-Efficacy ($p = .000$). The β weighting is positive ($\beta = .171$). It is reasonable to conclude that an individual who is prepared to cheat is not going to put in extensive effort in task completion. Such a prediction is not unexpected.

5.8 Conclusion Regarding Study 2

As noted at the beginning of this chapter it was stated that the purpose of Study 2 was to generate a theoretically informed model of the factors that might influence prospective students' considerations of taking shortcuts when pursuing academic postgraduate credentials, in the context of a market for fake qualifications. This purpose was achieved. A substantial number of responses to the online questionnaire produced a solid data set for analysis. The model produced a set of factors that it could be argued were moderately indicative of personality traits that drive individuals' actions. The factors Entitlement, Decidedness, Shortcut Knowledge/Expediency, Limited Effort/Ease of Completion, Lifestyle, and Prestige/Aspiration emerged as a result of Principal Axis Factoring. Confirmatory Factor Analysis of both the new instrument and the pre-established measures to confirm validity showed moderate acceptability. This was confirmed in the discussion of inter-correlations. Multiple regression models for Entitlement, Shortcut Knowledge, and Limited Effort were developed and produced some interesting results; in particular that Cheating Self-Efficacy is a strong predictor of a sense of Entitlement. The study was well grounded in sound theoretical constructs and built on pre-established research: the Mini IPIP6, the Cheating Self-Efficacy Questionnaire, the Occupational Self-Efficacy Scale, the Student Self-Perceived Employability Scale, the Dirty Dozen, and the Basic Psychological Needs Satisfaction and Frustration Scale (added as a result of conducting Study 1). Additionally, I was driven to derive a new scale – the Academic Worth Scale specifically to assess individuals' valuing of academic credentials. Some modifications need to be made but I would argue this scale has potential in assisting other researchers in the future. This aspect is discussed in Chapter 6.

CHAPTER 6: GENERAL DISCUSSION

6.0 Outcomes From the Research

This chapter begins with an overview of the research context before proceeding with a discussion of points of significance raised by the project. A summary of findings is followed by a discussion of implications: theoretical, methodological, and practical before outlining limitations and some directions for future research.

6.1 Overview of the Research Context

As per the title the research was concerned with factors that predict interest in qualifications offered by both recognised universities and unrecognised providers. I had come to develop an interest in this topic through my work as a careers adviser and exposure to some questionable qualifications. I became aware of the existence of fake institutions that were damaging the academic standing of other tertiary providers. There was a range from fully accredited universities to instant degree sellers. In between were TAFEs and polytechnic institutions and other providers which offered fast track programs of varying qualities. There was a myriad of marketers to potential students.

The first thing I needed to do was clarify for myself what constituted a recognized provider. In the university sector in a country such as Australia this was easy as the federal government has set out the Australian Qualifications Framework which clearly states levels of acceptable credentials and it is relatively straightforward to check which institutions offer these. In other domains this was not so easy. Dealing with the concept of accreditation is fraught with difficulty: different language use such as accredited, state-approved, approved and authorized; and, as noted in Chapter 1, in the US there is both regional and private accreditation with limited federal oversight. It is also difficult to get agreement on the interpretation of terminology when it comes to institutions: recall from Chapter 1 Western Governors University's self-description as a "virtual university". Such complexity more readily allows bogus institutions to enmesh themselves in the international arena. The field was ripe for further research. As far as I could ascertain my research was only the fifth academic dissertation studying this phenomenon, ranging from the first by Reid (1963) to G. M. Brown (2007) with nothing in the last decade. Yet its incidence remained prevalent, witness the Four Corners program of 20th April 2015.

The project was structured as two research studies, in the language of mixed methods a qual → QUAN approach. The first consisted of 15 semi-structured interviews on the interviewees' views on qualifications with the purpose of better informing me, as the researcher, regarding the construction of the survey to be used in Study 2. The second comprised an online survey consisting of a suite of questionnaires to test relations between variables that might predict individuals' interest in a postgraduate degree.

6.2 Summary of Findings

The plan for Study 2 needed to be amended in the light of the results of Study 1. Clearly, the survey in Study 2 would be improved if some more direct questions about psychological needs were included. Basic Psychological Need Theory (BPNT) was researched. BPNT is a sub-theory within SDT (Deci & Ryan, 2002). Within the context of sport and exercise a study by (Gunnell, Crocker, Wilson, Mack, & Zumbo, 2013) investigated psychological need satisfaction and thwarting (a synonym for frustration) leading me to decide to consider the Basic Psychological Needs Satisfaction and Frustration Scale – General Measure (BPNSF-GM) as developed by (B. Chen et al., 2015). I also needed some more direct probing into the possible acquisition of fake credentials. With my development of the Academic Worth Scale (AWS) Study 2 then comprised a suite of seven questionnaires.

The findings showed that entitlement could be predicted by psychopathy and narcissism drawn from the dark triad; agreeableness, conscientiousness, openness, and honesty humility drawn from the big six personality traits; occupational self-efficacy, autonomy frustration and relatedness frustration drawn from the basic psychological needs; and cheating self-efficacy. Shortcut knowledge can be predicted by Machiavellianism; agreeableness, conscientiousness, neuroticism, and honesty humility drawn from the big six personality traits; relatedness frustration; and cheating self-efficacy. Limited effort is predicted by narcissism; extraversion, conscientiousness, openness, and honesty humility drawn from the big six personality traits; occupational self-efficacy and employability; autonomy frustration and relatedness frustration drawn from basic psychological needs; and cheating self-efficacy. Cheating self-efficacy was a significant and positive predictor for all three factors. But interestingly so, too, was

relatedness frustration. This challenged my initial mindset that I expected cheating self-efficacy to be pre-eminent.

The frequency data showed that ten individuals stated that they had acquired a fake credential in the past. Given that none recorded an inappropriately acquired first degree it must be assumed that such a purchase was for a postgraduate credential, linking to the idea that such a credential serves to increase employability. An occurrence of 10/756 is small, but it is present in the data. As noted in the Demographic section this was an international sample drawn from 52 countries.

6.3 Theoretical Implications

I noted in Chapter 1 that within personality factors the addition of the H factor (Ashton & Lee, 2008a) has particular relevance to cheating behaviour. This was what I expected, though cheating has a number of dimensions such as plagiarism and cheating at examinations. The study has shown that Ashton and Lee's perspective is probably an overstatement in the context of fake credentials; the incidence of cheating through purchase of a fake credential is not borne out as being prolific. Further, while SCCT predicts interest in further study the evidence is not strong enough to claim that it predicts interest in obtaining a degree. Part of this might be due to a weakness in the structure of the study. This is discussed in section 6.4. It was not possible to determine that individuals with a high degree of self-efficacy for cheating would be more likely to purchase a fake degree. Part of the problem here seemed to be in thinking of Cheating Self-Efficacy as an independent variable: further research suggests that it acts in tandem with other factors such as performance levels (see, for example, Finn & Frone, 2004). Nor was it possible to definitively conclude that individuals with lower levels of honesty/humility are more likely to purchase a fake credential. Incidence of actual purchase of a fake degree was not statistically significant, but remains of ethical concern.

6.3.1 The link with research questions. The research set out to discover predictors of potentially dishonest behaviour with regard to the acquisition of fake credentials. In the context of academia chapter 1 raised the overarching research question of why some individuals would utilise fake credentials. What interest did they have in them? This has been explored by investigating aspects of personality expressed

as factors in the research model in Study 2. The findings of the study were insufficient to predict interest in actually purchasing a fake degree. But it was found that cheating self-efficacy was a predictor of a sense of entitlement, knowledge of shortcuts, and the preparedness of individuals to limit the effort they would make in task achievement. Thus, there are some indicative behaviours that might translate for some individuals into unethical actions.

6.3.2 Links with theories. Chapter 2 began with setting the research in the field of vocational psychology (Rottinghaus & Miller, 2013) Their integrated framework identified five dispositional traits (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) which formed a foundation in terms of personality traits. These were explored through the Big Five/Big Six factor theory of personality (McAdams & Pals, 2006) and measured in Study 2 through utilization of the Mini IPIP6 instrument (Milojev et al., 2013; Sibley et al., 2011). The seminal work of (Ashton & Lee, 2008a) had resulted in the H factor being added to the personality traits and consequently to the Mini IPIP6 instrument, highly relevant in the light of the subject matter of this research. The Rottinghaus and Miller (2013) model flagged self-efficacy as one element of characteristic adaptations. More specifically the research was cited in the context of Social Cognitive Career Theory (Lent et al., 1994), which has self-efficacy as a key concept. Given the research focus of acquisition of fake credentials, and with self-efficacy as a driving focus, my attention turned to employability (Rothwell et al., 2009), and the behaviour of individuals seeking to improve their prospects; occupational self-efficacy (Rigotti et al., 2008). Their instruments to measure these factors also formed part of Study 2.

A deeper probe into an individual's psyche led to an exploration of the dark triad and the traits of Machiavellianism, Psychopathy, and Narcissism (Jonason & Webster, 2010) and the addition of the Dirty Dozen as an instrument in Study 2. This focus on negative behavioural traits linked back specifically to a key thrust of the research; the concept of cheating self-efficacy (Umaru, 2013) and whether this phenomenon could contribute to an understanding of the motivation of individuals who purchased fake credentials. Thus, the Cheating Achievement Self-Efficacy Questionnaire (Umaru, 2013) was integral to the suite of questionnaires forming the survey in Study 2.

To better understand factors that promote the motivation of an individual, and emanating as a result of Study 1, I investigated Self Determination Theory (Deci & Ryan, 2002) and its subset of Basic Psychological Needs Theory (R. M. Ryan & Deci, 2017). This accommodated the finding in Study 1 that the survey in Study 2 should include more specific probing of an individual's satisfactions and frustrations in an attempt to understand behaviours. Thus, the Basic Psychological Needs Satisfaction and Frustration Scale – General Measure (B. Chen et al., 2015) was added to the questionnaire in Study 2.

The conceptual diagram I developed as an outcome of Study 1 sets up further avenues for research. It paralleled the structural model of Johnston and Finney (2010) with their three ellipses: satisfaction of the need for autonomy, satisfaction of the need for competence, and satisfaction of the need for relatedness. It also made linkages with the work of Rothwell et al. (2009) discussed in section 4.10.1. Their work established an association between students' perception of institutional reputation and employability, providing a bridge between circles two and three of my model (see Figure 4). The conceptual diagram that I developed is a useful adjunct in contemplating the work of Rothwell et al. (2009) with respect to graduate employability. The thesis also drew on the models of Lent et al. (1994) and Rottinghaus and Miller (2013) as discussed previously in addressing the theoretical foundations of the research.

6.3.3 Implications from principal axis factoring (PAF). Reading over 5.6.3 reveals that initially there were eight factor groupings at play. Perusal of Table 5 shows that this was reduced to seven after one was discarded, and further discussion explained why only six were retained for modelling purposes. It is important to bear in mind that the researcher is making subjective decisions here on a number of counts; on which loadings to keep, and on the naming of the clusters which formulated the set of factors used in subsequent modelling. It is, of course, conceivable that another researcher would make different decisions regarding the data set. As was noted in section 5.6.3.7 analysis of the pattern matrix resulted in the reduction of possible groupings from eight to six, and the naming of six factors with total loadings of 28, to become the foundation of the new instrument, the AWS.

6.3.4 Implications from the amended correlated model of AWS. Figure 5 conveys a visual image of the amended correlated model of the AWS. Perusal of the diagram clearly shows the significant paths among factors. When explored it is significant that the factor of decidedness stood apart from the key factors of Entitlement, Shortcut Knowledge, and Ease of Effort which are integral to this research. This relationship of decidedness with the other factors was an interesting, unexpected result which merits further exploration. Decidedness is not a new phenomenon in the literature of career development (Betz & Voyten, 1997; Ferrari et al., 2009) and a specific investigation into the relationship between decidedness and the Big Five personality traits (Lounsbury, Hutchens, & Loveland, 2005) in the context of secondary education. Further probing of this with tertiary students would be interesting.

6.3.5 Implications arising from inter-correlations. Examining the data with respect to Cheating Self-Efficacy and Honesty Humility in particular, a correlation of $r = -.24$ (Cell 12,13) suggests that honesty and cheating are negatively related, that is honesty humility is not congruent with cheating behaviour. The figure is moderately indicative. Analysis of the data set showed further inter-correlations of $r = -.22$ between honesty/humility and shortcut knowledge, again indicating a moderate negative relationship. A moderate to low positive relationship with an inter-correlation of $r = .17$ was evident between cheating self-efficacy and shortcut knowledge implying that the behaviour to cheat was to some degree congruent with knowledge about unethical methods to achieve goals.

6.3.6 Implications arising from multiple regression models. As discussed in section 5.6.12 three factors (Entitlement, Shortcut Knowledge, and Limited Effort) were selected as the most theoretically interesting apropos the research questions and models were derived for each (see Tables 20, 21 and 22). Results for each of the five groupings in each of the three tables were summarised in section 5.7.3. The evidence for each of the three multiple regression models was drawn from established instruments. Measures of Machiavellianism, Psychopathy, and Narcissism were drawn from the Dirty Dozen (Jonason & Webster, 2010). Measures of Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, and Honesty Humility were drawn from the Mini IPIP6 (Milojev et al., 2013; Sibley et al., 2011). Measures of Occupational Self-

Efficacy and Employability were drawn from the Occupational Self-Efficacy Scale (Rigotti et al., 2008) and the Student Self-Perceived Employability Scale (Rothwell et al., 2009) respectively. Measures of Autonomy Satisfaction, Autonomy Frustration, Relatedness Satisfaction, Relatedness Frustration, Competence Satisfaction, and Competence Frustration were drawn from the Basic Psychological Needs Satisfaction and Frustration Scale – General Measure (B. Chen et al., 2015). The measure for Cheating Self-Efficacy was drawn from the Cheating Achievement Self-Efficacy Questionnaire (Umaru, 2013).

6.3.6.1 Assessing entitlement. Statistics for this factor are provided in Table 20. An individual's sense of entitlement was predicted by 10 factors: five in a positive direction and five in a negative one. Thus, we can predict that an individual who exhibits the traits of Psychopathy, Narcissism, Autonomy Frustration, Relatedness Frustration, and Cheating Self-Efficacy will feel a sense of entitlement. Such an individual might feel the world owes them and might therefore consider purchasing a fake credential. We can also predict that an individual who exhibits traits of Agreeableness, Conscientiousness, Openness, Honesty Humility and Occupational Self-Efficacy will not have a sense of entitlement. Such an individual would be prepared to work hard and would not be likely to purchase a fake credential.

6.3.6.2 Assessing shortcut knowledge. Statistics for this factor are provided in Table 21. An individual's shortcut knowledge was predicted by seven factors: three in a positive direction and four in a negative one. Here we can predict that an individual who exhibits the traits of Machiavellianism, Relatedness Frustration, and Cheating Self-Efficacy has possibly acquired shortcut knowledge. Such an individual is then in a position to use it, and logically is thus more likely to purchase a fake credential than another who did not possess such knowledge. We can also predict that individuals who exhibit traits of Agreeableness, Conscientiousness, Neuroticism, and Honesty Humility are unlikely to have acquired shortcut knowledge for reasons similar to why they don't feel a sense of entitlement. In the case of Neuroticism, they might be too moody or anxious or fearful, to have calmly and calculatedly set about acquiring such knowledge. Both scenarios place them in a position where they would be unlikely to purchase a fake credential.

6.3.6.3 Assessing limited effort. Statistics for this factor are provided in Table 22. An individual's limited effort was predicted by nine factors: five in a positive direction and four in a negative one. In the case of limited effort from the data we can predict that an individual who exhibits the traits of Extraversion, Employability, Autonomy Frustration, Relatedness Frustration, and Cheating Self-Efficacy is likely to make a limited effort in task accomplishment. Extroverts might feel they can just sell themselves. Frustrated individuals might just think it's not worth the effort. In the case of Employability the β weighting indicates that the prediction is weak. However, it is possible that individuals might feel confident with respect to the degree of their employability and therefore might not put themselves out too much; that is limit their efforts. Such individuals might be prepared to entertain the purchase of a fake credential as an easy way out. On the other hand, we can predict that individuals who exhibit traits of Conscientiousness, Openness, and Occupational Self-Efficacy are less likely to limit their efforts to achieve a goal and concomitantly would be less likely to purchase a fake credential.

6.4 Methodological Implications

The construction of a new instrument (the AWS) provided me with an opportunity to experience first-hand both the positives and negatives of rigorous academic research. The process of research threw up a number of interesting challenges and there are some lessons which might prove useful to other researchers.

6.4.1 Obtaining data from interviews. With respect to Study 1 it is worth commenting on the process of interviewing. Finding a suitable venue is critical to both put the interviewee at ease and to gain quality sound recording. Even booking a conference room at the person's workplace can still result in disruption to the interview with a co-worker seeking out the interviewee but such a strategy at least minimises this. By visiting the person's workplace if this is possible I was able to accommodate the needs of the interviewee. Where this was not possible obtaining access to a central venue is particularly helpful although it is good to avoid cafes because of the level of background noise. I was most fortunate that the University of Newcastle provided me with a room in their Sydney city campus to conduct interviews with three interviewees from that city. Use of quality audio equipment is essential.

In terms of research efficiency for the uninitiated like me I would strongly recommend the use of a professional transcription service. Such a service has experience with the task and in my case there was very little filling in required in the transcripts. It is also a huge time saver.

6.4.2 Obtaining respondents for an online survey. Study 2 required participants to complete an online survey. In relation to obtaining responses to the survey the use of the USQ alumni network proved really valuable. Advertised twice in the alumni newsletter there was a really good response with 1306 hits and 756 completing the full survey. Only one respondent communicated that he thought the survey was a waste of time but it is important to provide an email contact so that the respondent feels a sense of control and connection. Another required clarification of his eligibility to complete the survey which flags some issues with the AWS in particular. The survey comprised a suite of seven questionnaires, six of which were pre-established. The seventh, the AWS, was constructed specifically for this piece of research. On reflection there were some difficulties inherent in the instrument.

6.4.3 Fine tuning the AWS instrument. The AWS sought participants who were already graduates (i.e. had a previous university experience) and were contemplating, were currently undertaking, or had already completed a master's coursework degree. First this delineation proved somewhat problematic in the wording of the questionnaire. I attempted to draw the distinction through a change of tense. For example Item 19 reads "I know that there are short-cut ways to get a postgraduate qualification" (assuming the person has not done utilised this option yet) and Item 32 which reads "I knew that there were short-cut ways to get a postgraduate qualification" (assuming the person is already past this point). But on reflection this distinction is not as clear as it could be. Moreover the use of the term "postgraduate qualification" is inadequate as it allows for postgraduate certificates and diplomas to be counted whereas the research is predicated on coursework masters' degrees.

Length of the overall survey was clearly one factor contributing to the drop-off rate but whether the wording contributed substantially to the attrition level is an unknown. It would certainly seem a possibility. Section 5.8 noted the need for modifications to be made to the AWS. On reflection I think the AWS would be better if

there were three distinct sections with a clear indication as to which section a respondent should answer. Thus instructions at the beginning would read as follows:

Section A: Answer this only if you are a graduate seeking your first master's coursework degree.

Section B: Answer this only if you are currently enrolled in your first master's coursework degree.

Section C: Answer this only if you have completed one or more master's coursework degrees.

The text for each of Sections A, B, and C is set out in Table 20 on the following pages. The questionnaire would be formatted to allow a respondent to answer either Section A or B or C according to the sections denoted above. Respondents would be directed to answer their preference on a five point Likert scale as was the case with the AWS as used in the current study.

Table 20

Variations to the AWS

For graduates who are seeking their first master's coursework degree	For those currently enrolled in their first master's coursework degree	For those who already have completed one or more master's coursework degrees
1. Postgraduate qualifications are important in the world of work.	1. Postgraduate qualifications are important in the world of work.	1. Postgraduate qualifications are important in the world of work.
2. The idea of a postgraduate qualification appeals to me.	2. The idea of a postgraduate qualification appeals to me.	2. The idea of a postgraduate qualification appeals to me.
3. I admire people who have a postgraduate qualification.	3. I admire people who have a postgraduate qualification.	3. I admire people who have a postgraduate qualification.
4. My reputation would be enhanced by a postgraduate qualification.	4. My reputation would be enhanced by a postgraduate qualification.	4. My reputation is enhanced by a postgraduate qualification.
5. I am interested in obtaining a postgraduate qualification.	5. I am interested in obtaining a postgraduate qualification.	5. I was interested in obtaining a postgraduate qualification.
6. I am willing to make financial sacrifices to obtain a postgraduate qualification.	6. I am willing to make financial sacrifices to obtain a postgraduate qualification.	6. I was willing to make financial sacrifices to obtain a postgraduate qualification.
7. I will allocate the time required to achieve a postgraduate degree.	7. I am allocating the time required to achieve a postgraduate degree.	7. I allocated the time required to achieve a postgraduate degree.
8. Studying for a postgraduate qualification will satisfy my passion for learning.	8. Studying for a postgraduate qualification is satisfying my passion for learning.	8. Studying for a postgraduate qualification satisfied my passion for learning.
9. My self-esteem will be enhanced by a postgraduate qualification.	9. My self-esteem is enhanced by a postgraduate qualification.	9. My self-esteem has been enhanced by a postgraduate qualification.
10. The idea of letters after my name appeals to me.	10. The idea of letters after my name appeals to me.	10. The idea of letters after my name appealed to me.
11. I know other people with postgraduate qualifications.	11. I know other people with postgraduate qualifications.	11. I know other people with postgraduate qualifications.
12. Other people have encouraged me to get a postgraduate qualification.	12. Other people have encouraged me to get a postgraduate qualification.	12. Other people have encouraged me to get a postgraduate qualification.
13. I intend to explore postgraduate qualifications in my field.	13. I explored postgraduate qualifications in my field before enrolling.	13. I explored postgraduate qualifications in my field before enrolling.
14. I have not yet identified the best qualification for me.	14. I have identified the best qualification for me.	14. I had identified the best qualification for me.
15. I intend to apply for a coursework master's program.	15. I have already applied for a coursework master's program.	15. I have previously applied for a coursework master's program.
16. I have decided to enrol in a coursework master's degree.	16. I have enrolled in a coursework master's program.	16. I have previously enrolled in a coursework master's program.
17. I have decided when I will commence a coursework master's qualification.	17. I have already commenced study for a coursework master's qualification.	17. I have already successfully completed a coursework master's qualification.

18. I have chosen the institution from which I will obtain a coursework master's degree.	18. I researched the institution where I am studying for a coursework master's degree.	18. I researched the institution from which I obtained my coursework master's degree.
19. I know that there are short-cut ways to get a postgraduate qualification.	19. I know that there are short-cut ways to get a postgraduate qualification.	19. I know that there are short-cut ways to get a postgraduate qualification.
20. I know that some postgraduate qualifications can be obtained with little time commitment.	20. I know that some postgraduate qualifications can be obtained with little time commitment.	20. I know that some postgraduate qualifications can be obtained with little time commitment.
21. I intend to seek out a postgraduate degree that can be obtained quickly.	21. I sought out a postgraduate degree that could be obtained quickly.	21. I sought out a postgraduate degree that could be obtained quickly.
22. I intend to seek out a postgraduate degree that can be obtained easily.	22. I sought out a postgraduate degree that could be obtained easily.	22. I sought out a postgraduate degree that could be obtained easily.
23. I intend to apply for a postgraduate degree that requires little effort to obtain.	23. I applied for a postgraduate degree that requires little effort to obtain.	23. I applied for a postgraduate degree that required little effort to obtain.
24. I just want the piece of paper.	24. I just want the piece of paper.	24. I just wanted the piece of paper.
25. I don't need to study, I just need the recognition.	25. I don't need to study, I just need the recognition.	25. I didn't need to study, I just needed the recognition.
26. The institution's reputation will influence my decision to obtain a postgraduate qualification.	26. The institution's reputation influenced my decision to obtain a postgraduate qualification.	26. The institution's reputation influenced my decision to obtain my last postgraduate qualification.
27. The institution's flexibility (e.g., online, distance) will influence my decision to obtain a postgraduate qualification.	27. The institution's flexibility (e.g., online, distance) influenced my decision to obtain a postgraduate qualification.	27. The institution's flexibility (e.g., online, distance) influenced my decision to obtain my last postgraduate qualification.
28. My postgraduate study could fit into my lifestyle.	28. My postgraduate study fits into my lifestyle.	28. My postgraduate study fitted into my lifestyle.
29. Obtaining sufficient finance is an influence on my decision to obtain a postgraduate qualification.	29. Obtaining sufficient finance was an influence on my decision to obtain a postgraduate qualification.	29. Obtaining sufficient finance was an influence on my decision to obtain my last postgraduate qualification.
30. Enhancing my employment prospects is an influence on my decision to obtain a postgraduate qualification.	30. Enhancing my employment prospects was an influence on my decision to obtain a postgraduate qualification.	30. Enhancing my employment prospects was an influence on my decision to obtain my last postgraduate qualification.
31. Personal satisfaction is an influence on my decision to obtain a postgraduate qualification.	31. Personal satisfaction was an influence on my decision to obtain a postgraduate qualification.	31. Personal satisfaction was an influence on my decision to obtain my last postgraduate qualification.
32. I know that there are shortcut ways to get a postgraduate qualification.	32. I knew that there were shortcut ways to get a postgraduate qualification.	32. I knew that there were shortcut ways to get my last postgraduate qualification.
33. In the past I have purchased an undergraduate degree that did not require any study.	33. In the past I have purchased an undergraduate degree that did not require any study.	33. In the past I have purchased an undergraduate degree that did not require any study.
34. In the past I have purchased a graduate degree that did not require any study.	34. In the past I have purchased a graduate degree that did not require any study.	34. In the past I have purchased a graduate degree that did not require any study.

6.4.4 The importance of rigour. From the discussion in the sections above it is clear that a major theoretical implication is the importance of rigorous modelling in academic research. Few would dispute that in the field of science it is imperative to have rigorous research standards (Poste, 2012): Burkhardt and Schoenfeld (2003) maintained that educational research needed to be improved in this regard. There is no doubt that developments in technology have provided the tools to do this; just take structural equation modelling (SEM) as one example. The movement to tighter RMSEAs previously discussed attests to this; two decades ago there would be absolutely no question as to the acceptability of my results as a reasonably good fit with $RMSEA = .079$ (MacCallum et al., 1996).

6.5 Practical Implications

There are significant practical implications for both the academic and commercial worlds. For the academic world the issue of bogus qualifications is a detractor to high quality education systems, the implications of which are clearly set out in Ezell and Bear (2012). Their book was really the start of my research journey. The commercial world must contend with some individuals who utilize fake credentials for their own employment enhancement. Acquisition of a fake credential does not provide the competencies for task completion and there is an issue of unfairness when such individuals take on employment opportunities at the expense of genuine contenders.

6.5.1 Increasing awareness of the academic community. From time to time programs like the ABC's Four Corners bring to light a topical; community problem (Waldersee, 2015). But such programs are really only sound bites. One of the key intended outcomes is for academics and university administrators to become more aware of the issue of fake qualifications and what this means for the academic community. This is an element in one of the contexts in which academics work: universities grant degrees. They also undertake valuable research and the combination of these two facets contributes substantially to their standing in the community. The operation of diploma mills (unrecognized providers) diminishes the whole tertiary sector. Therefore, one of the key outcomes of this research will be dissemination through academic journals with the purpose of raising awareness. The findings suggest that universities could well test for prospective students' cheating self-efficacy. This has significance where a student

cohort is being recruited from a culture which prioritizes different values, and could be used to flag participation in cultural awareness programs relating to the host institution.

6.5.2 Implications for HR managers. The commercial world has a key role to play too. There is a powerful link between acquisition of a credential and employability. Rothwell et al. (2009) showed this in their study on graduate self-perception and employability. My intention was to increase awareness of the other end of the spectrum: to explore the prevalence of those who just wanted the piece of paper – the purpose of which was purported to be to enhance employability. Honesty and integrity are traits of significance in the workplace. Therefore, increased awareness of the incidence of fake credentials on the part of human resource officers should lead to better recruiting practices. For example, academic claims could be better tested. Rather than just viewing a diploma or academic transcript (which fake institutions also supply) an interviewee could be asked to substantiate what he or she actually did in the project recorded on a testamur. Perhaps HR managers need to screen for cheating self-efficacy and ascertain the extent of an applicant's shortcut knowledge. Further, could they establish mechanisms to measure Machiavellianism. The findings from the study show that it is possible to measure an individual's sense of entitlement, shortcut knowledge, and propensity for limiting effort. These are valuable insights for the HR manager with respect to a future employees' sense of commitment and ethical standards in carrying out their work tasks. HR managers could assist greatly in rejecting individuals who apply with questionable credentials, to the point where the acquisition of a fake credential is a worthless exercise.

6.6 Limitations

Any research project is limited in what it is able to achieve, constrained by the resources available. The results of such projects are also limited in terms of both the research outcomes and the applicability of their findings.

6.6.1 Resource constraints in research. The current research project was clearly limited by the amount of time available to the researcher: for a start university regulations cap the time period available for higher degree completion and in this case there were both coursework and research requirements to be met. The research project was also time constrained in the sense that it really represents a snapshot in time of the

incidence of the problem. The project was further constrained by the limited funding available. The effect of these two dimensions was to limit the extent of the research: for example, the number of participants in Study 1 was 15. With more time and resources, a much larger qualitative study could have been conducted. Study 1 served its purpose for me: rather than being a full-blown study with substantial results it was intended to be informative in the process of crafting Study 2. This it did well with the result that a new measure, the AWS, was designed and the BPNSF-GM scale was added to the suite of questionnaires in Study 2.

6.6.2 Limited control by the researcher. Study 2 in particular, was limited in terms of researcher control. There was the assumption that respondents were answering the questionnaire truthfully. There was no way of checking whether this was really the case. Steps were taken at the design level to reduce the incidence of untruths. Participants were asked for the name of their degree, the name of the institution from which they graduated, and the year of their graduation. This was a check that they actually fulfilled the criterion of being a graduate. But realistically any one individual could have lied. All I could do was to build in a mechanism to assist in probing true responses. So the data set could actually have been somewhat flawed. This is why replication would be an important academic measure. To what extent would the results be different if the Study were re-run. The sample would have a different composition. Would this significantly affect the outcome?

Using USQ alumni was helpful in obtaining a good response and participants came from 52 countries. But participants had to be graduates of USQ to take the survey. A wider international sample would have been obtained had other universities been added to the mix. This would have involved extensive liaisons and ethical clearances which was just not possible in the confines of this project. A larger, more diverse sample may well have delivered some variation in the results.

6.6.3 Limitations of findings. I would have to concur with Bahlmann (2011) that although research yields interesting results, they should be considered against several possible limitations. First, as noted in section 6.6.1 the data for this research represents a snapshot in time of the incidence of the problem; it is cross-sectional not longitudinal, although it is referring to a problem which has been present for at least six

decades. Secondly, the findings are limited by the nature of the sample (graduates) and research intent (those who were seeing, undertaking, or had completed a master's coursework degree). Would individuals seeking an undergraduate fake credential yield different results, for example? Third, predictions emanate from the multiple regression models (for Entitlement, Shortcut Knowledge, and Limited Effort); limited to three in number that were most pertinent to the research. Correlations only identify whether a relationship exists: they do not reflect causality. Finally, the findings are dependent on the honesty of respondents to the online survey as discussed in section 6.6.2. It has to be assumed that the answers provided were actually truthful; some of the data could have been unknowingly flawed.

6.7 Future Research

The question arises that if the research were to be replicated taking account of the adjustments suggested in Table 20 would principal axis factoring produce variations in the pattern mix? Can further improvements be made to the AWS to make it a more valid, reliable and useful instrument for other researchers? There is also a wealth of possibilities for further exploring the factors which emerged from the pattern analysis in Study 2: Entitlement, Decidedness, Shortcut Knowledge/Expediency, Limited effort/Ease of completion Lifestyle and Prestige/Aspiration.

In the context of the business world research into recruitment practices could examine the impact of the acquisition of fake credentials and it was noted above that human resource officers should have an enhanced role. Further, Ezell and Bear (2012) recount case studies where operators of fake institutions have been in partnership with corporations in delivering professional development.

Extending research into self-efficacy for cheating brings up an entirely different and substantial dimension with the issue of plagiarism and it would be good to see more formal research into this rather than just accounts of incidence. This is an associated problem that also impacts on the stature of legitimate universities. What is the cultural impact here when foreign students possess a different value stance from that of their host countries? Is it, for example, more important not to lose face with family at home than to cheat, so as to complete the course successfully when the family has made huge sacrifices to allow an individual the chance to gain a worthwhile credential?

6.8 Conclusion

The study has proved to be a worthwhile investigation. I developed a new questionnaire, the Academic Worth Scale (AWS) which provides opportunities for other researchers to further explore the acquisition of academic credentials. Additionally, I developed a preliminary model where the factors of entitlement, shortcut knowledge and limited effort are predicted by other well established measures of personality and career related behaviour and student interest. Overall the study has made a valuable contribution to knowledge in both academic and practical terms.

To me the incidence of purchase of fake degrees remains an ethical issue. My concern remains that across the different educational systems the attitude that acquisition of a fake credential is acceptable prevails at all. If the sample were reflective of a student population at large then this remains an international problem of some size. The research sought to raise awareness of this issue for the academic world and commercial world, in particular. That the research achieves academic standing adds authority and credibility to raising the profile of this issue. Dissemination of the findings through future publication of articles will then aid in this process.

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Appendices

Appendix A: Documents for Study 1

Note the thesis project title was slightly amended after Study I had been completed (see title page).

Item 1: Participant Information Sheet for Study 1



HREC Approval Number: H16REA230

Full Project Title: Psychological Factors that Predict Interest in Fake Qualifications

Principal Researcher: David Bruce

Other Researcher(s):

I would like to invite you to take part in this research project.

1. **Procedures:** Study 1

Participation in this project will involve

- *a once-off commitment involving a semi-structured interview with the researcher. The researcher's notes will be used to design a questionnaire in consultation with his principal supervisor.*
- *Participants may find the interview process of benefit to them in reflecting on their own professional development.*
- *There is a small risk that such discussion may elicit low levels of discomfort and/or stress.*
- *You are asked to complete and sign the consent form.*

2. **Voluntary Participation**

Participation is entirely voluntary. **If you do not wish to take part you are not obliged to.** Please say so. You are also free to terminate the discussion at any time with the researcher's notes being destroyed. Once the researcher and participant have parted it would not be possible to withdraw data as individuals will be unidentifiable.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with any tertiary institution with which you may have affiliation.

Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

David Bruce
c/o Faculty of Business, Education Law and Arts
USQ
West St
Toowoomba
Qld 4350
Ph (07) 46312319
Mob. 0433045105
Email: dbrucey@hotmail.com

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

***Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ethics@usq.edu.au***

Item 2: Consent Form for Study 1



University of Southern Queensland

The University of Southern Queensland
Consent Form

HREC Approval Number: **H16REA230**

TO: Participants of Study 1

Full Project Title: **Psychological Factors that Predict Interest in Fake Qualifications**

Student Researcher: David Bruce

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I confirm that I am over 18 years of age.
- I confirm I am a university graduate.
- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.

Name of participant.....

Signed.....**Date**.....

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ethics@usq.edu.au

Appendix B: Instruments for Study 2

Item 1: Survey as Presented to Respondents in Study 2.



Section A: My Views About Qualifications

A1. My Views About Qualifications On this page you will find a series of statements about your interest in graduate or postgraduate coursework.

Please read each statement and decide how much you agree or disagree with that statement.

Then write your response in the space next to the statement using the following scale, ranging from 1 = "strongly disagree" through to 5 = "strongly agree"

	1 = strongly disagree	2 = disagree	3 = neutral (neither agree nor disagree)	4 = agree	5 = strongly agree
Postgraduate qualifications are important in the world of work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The idea of a postgraduate qualification appeals to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I admire people who have a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My reputation would be enhanced by a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am interested in obtaining a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to make financial sacrifices to obtain a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will allocate the time required to achieve a postgraduate degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Studying for a postgraduate qualification will satisfy my passion for learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My self-esteem will be enhanced by a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The idea of letters after my name appeals to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know other people with postgraduate qualifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other people have encouraged me to get a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intend to explore postgraduate qualifications in my area of interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have identified the best qualification for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intend to apply for a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have decided to enrol in a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have decided when I will commence study for a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have chosen the institution from which I will obtain a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know that there are short-cut ways to get a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know that some postgraduate qualifications can be obtained with little time commitments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intend to seek out a postgraduate degree that can be obtained quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intend to find a postgraduate degree that can be obtained easily	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have applied for entry into a postgraduate degree that requires little effort to obtain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I just want the piece of paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't need to study, I just need the recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institution's reputation influenced my decision to obtain my last postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institution's flexibility (e.g., online, distance) influenced my decision to obtain my last postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	1 = strongly disagree	2 = disagree	3 = neutral (neither agree nor disagree)	4 = agree	5 = strongly agree
Study could fit into my lifestyle and work influenced my decision to obtain my last postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was able to obtain sufficient finance influenced my decision to obtain my last postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It enhanced my employment prospects influenced my decision to obtain my last postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal satisfaction influenced my decision to obtain my last postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I knew that there were short-cut ways to get a postgraduate qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I knew that some postgraduate qualifications could be obtained with little time commitments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intended to seek out a postgraduate degree that could be obtained quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intended to find a postgraduate degree that could be obtained easily	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I applied for entry into a postgraduate degree that required little effort to obtain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I just wanted the piece of paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I didn't need to study, I just needed the recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past, I bought a degree that did not require any study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section B: About Me

B1.

About Me

Here is a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement.

Then choose your response using the following 7-point scale, ranging from 1 = "very inaccurate" through to 7 = "very accurate"

	1 = Very inaccurate	2 = Mostly inaccurate	3 = Slightly inaccurate	4 = neutral (neither accurate nor inaccurate)	5 = Slightly accurate	6 = Mostly accurate	7 = Very accurate
Am the life of the party.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sympathize with others' feelings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Get chores done right away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have frequent mood swings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have a vivid imagination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feel entitled to more of everything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don't talk a lot.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Am not interested in other people's problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have difficulty understanding abstract ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Like order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Make a mess of things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deserve more things in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do not have a good imagination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feel others' emotions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	1 = Very inaccurate	2 = Mostly inaccurate	3 = Slightly inaccurate	4 = neutral (neither accurate nor inaccurate)	5 = Slightly accurate	6 = Mostly accurate	7 = Very accurate
Am relaxed most of the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Get upset easily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seldom feel blue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would like to be seen driving around in a very expensive car.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keep in the background.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Am not really interested in others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Am not interested in abstract ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often forget to put things back in their proper place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talk to a lot of different people at parties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would get a lot of pleasure from owning expensive luxury goods.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section C: Examinations

C1.

Examinations

On this page you will find a series of statements about attitudes towards academic examinations.

Please read each statement and decide how much you agree or disagree with that statement.

Then write your response in the space next to the statement using the following scale, ranging from 1 = "strongly disagree" through to 5 = "strongly agree"

	1 = strongly disagree	2 = disagree	3 = neutral (neither agree nor disagree)	4 = agree	5 = strongly agree
If I have the opportunity to see the questions before the examination I will surely pass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I cheat in examinations due to lack of confidence in myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have enough time to read for examinations therefore I have an interest in cheating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheating in examinations makes me feel guilty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheating is not necessary if I have prepared well before the examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No matter how hard I prepare, if I don't cheat I will fail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Some teachers encourage cheating during an examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheating is encouraged because many people who cheat often escape punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will cheat in an examination if my family give their support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family members encourage me to cheat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Only people who cheat have high scores in internal and external examinations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Section D: About My Work

D1. About My Work

On this page you will find a series of statements about your approach to work.

Please read each statement and decide how much you agree or disagree with that statement.

Then give your response using the six-level response scale ranging from 1 (not at all true) to 6 (completely true).

	1 = Not at all true	2 = Mostly not true	3 = Slightly not true	4 = Slightly true	5 = Mostly true	6 = Completely true
I can remain calm when facing difficulties in my job because I can rely on my abilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I am confronted with a problem in my job, I can usually find several solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Whatever comes my way in my job, I can usually handle it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My past experiences in my job have prepared me well for my occupational future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I meet the goals that I set for myself in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel prepared for most of the demands in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section E: Academic Standing and Employability

E1.

Academic Standing and Employability

Here is a series of statements about academic standing and employment. Please read each statement while thinking about the university from which you aim to achieve (or have already achieved) a graduate or postgraduate degree. Decide how much you agree or disagree with that statement.

Then write your response in the space next to the statement using the following scale, 1 = "strongly disagree" to 5 = "strongly agree"

	1 = strongly disagree	2 = disagree	3 = neutral (neither agree nor disagree)	4 = agree	5 = strongly agree
I achieve high grades in relation to my studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I regard my academic work as top priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employers are eager to employ graduates from my University.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The status of this University is a significant asset to me in job-seeking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employers specifically target this University in order to recruit individuals from my subject area(s).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My University has an outstanding reputation in my field(s) of study.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A lot more people apply for my degree than there are places available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My chosen subject(s) rank(s) highly in terms of social status.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People in the career I am aiming for are in high demand in the external labor market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My degree is seen as leading to a specific career that is generally perceived as highly desirable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is generally a strong demand for graduates at the present time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are plenty of job vacancies in the geographical area where I am looking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can easily find out about opportunities in my chosen field.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The skills and abilities that I possess are what employers are looking for.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



1 = strongly disagree 2 = disagree 3 = neutral (neither agree nor disagree) 4 = agree 5 = strongly agree

I am generally confident of success in job interviews and selection events.

I feel I could get any job so long as my skills and experience are reasonably relevant.

Section F: My Attitudes

F1. My Attitudes

Here you will find statements about you. Please read each statement and decide how much you agree or disagree with that statement.

Then write your response in the space next to the statement using the following scale, ranging from 1 = "strongly disagree" to 5 = "strongly agree"

1 = strongly disagree 2 = disagree 3 = neutral (neither agree nor disagree) 4 = agree 5 = strongly agree

I tend to manipulate others to get my way.

I have used deceit or lied to get my way.

I have use flattery to get my way.

I tend to exploit others towards my own end.

I tend to lack remorse.

I tend to be unconcerned with the morality of my actions.

I tend to be callous or insensitive.

I tend to be cynical.

I tend to want others to admire me.

I tend to want others to pay attention to me.

I tend to seek prestige or status.

I tend to expect special favors from others.

Section G: My Life in General

G1. We are going to ask about your actual experiences of certain feelings in your life. Please read each of the following items carefully. You can choose from 1 = "Not True At All" to 5 "Completely True", to indicate the degree to which the statement is true for you at this point in your life.

1 = Not true at all 2 = Mostly not true 3 = Occasionally true 4 = Mostly true 5 = Completely true

I feel a sense of choice and freedom in the things I undertake

Most of the things I do feel like "I have to"

I feel that the people I care about also care about me

I feel excluded from the group I want to belong to

I feel confident that I can do things well

I have serious doubts about whether I can do things well

I feel that my decisions reflect what I really want

I feel that people who are important to me are cold and distant towards me



H4. What is your country of birth?

H5. What is the name and location of the university from which you earned your first degree? e.g., Monash University, Kuala Lumpur, Malaysia

H6. What is the title of your first degree? For example, Bachelor of Business.

H7. What was the year of graduation for your first degree?

H8. Do you wish to participate in the random draw for a prize (i.e., a gift voucher to the value of \$50 AUD)?

If you wish to enter the draw then please provide an email address in the text box below. Your email address will not be shared with any other person outside of the research team. You are not obliged to enter the draw. You may simply click on the Close button to complete the survey.

Yes

No

H9. Email

Thank you for taking part in our survey. Your response is very important to us.

Item 2: The Academic Worth Scale (AWS)

Instrument Type: Inventory/Questionnaire
Version Attached: Full Test

Test Format:
This 39-item measure utilizes a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Source:
Supplied by author.

Academic Worth Scale

Item	
1	Postgraduate qualifications are important in the world of work.
2	The idea of a postgraduate qualification appeals to me.
3	I admire people who have a postgraduate qualification.
4	My reputation would be enhanced by a postgraduate qualification.
5	I am interested in obtaining a postgraduate qualification.
6	I am willing to make financial sacrifices to obtain a postgraduate qualification.
7	I will allocate the time required to achieve a postgraduate degree.
8	Studying for a postgraduate qualification will satisfy my passion for learning.
9	My self-esteem will be enhanced by a postgraduate qualification.
10	The idea of letters after my name appeals to me.
11	I know other people with postgraduate qualifications.
12	Other people have encouraged me to get a postgraduate qualification.
13	I intend to explore postgraduate qualifications in my area of interest.
14	I have identified the best qualification for me.
15	I intend to apply for a postgraduate qualification.
16	I have decided to enrol in a postgraduate qualification.
17	I have decided when I will commence study for a postgraduate qualification.

- 18 I have chosen the institution from which I will obtain a postgraduate qualification.
- 19 I know that there are short-cut ways to get a postgraduate qualification.
- 20 I know that some postgraduate qualifications can be obtained with little time commitment.
- 21 I intend to seek out a postgraduate degree that can be obtained quickly.
- 22 I intend to find a postgraduate degree that can be obtained easily.
- 23 I have applied for entry into a postgraduate degree that requires little effort to obtain.
- 24 I just want the piece of paper.
- 25 I don't need to study. I just need the recognition.
- 26 Institution's reputation influenced my decision to obtain my last postgraduate qualification.
- 27 Institution's flexibility (e.g. online, distance) influenced my decision to obtain my last postgraduate qualification.
- 28 Study could fit into my lifestyle and work influenced my decision to obtain my last postgraduate qualification.
- 29 I was able to obtain sufficient finance influenced my decision to obtain my last postgraduate qualification.
- 30 It enhanced my employment prospects influenced my decision to obtain my last postgraduate qualification.
- 31 Personal satisfaction influenced my decision to obtain my last postgraduate qualification.
- 32 I knew that there were short-cut ways to get a postgraduate qualification.
- 33 I knew that some postgraduate qualifications could be obtained with little time commitment.
- 34 I intended to seek out a postgraduate degree that could be obtained quickly.
- 35 I intended to find a postgraduate degree that could be obtained easily.
- 36 I applied for entry into a postgraduate degree that required little effort to obtain.

- 37 I just wanted the piece of paper.
- 38 I didn't need to study. I just needed the recognition.
- 39 In the past I bought a degree that did not require any study.
-

Item 3: The Mini IPIP6

Instrument Type: Inventory/Questionnaire
Version Attached: Full Test

Test Format:

This 24-item measure utilizes a 7-point Likert-type scale ranging from 1 (very inaccurate) to 7 (very accurate).

Source: Sibley, C. G., Luyten, N., Purnomo, M., Mobberley, A., Wootton, L. W., Hammond, M. D., . . . Wilson, M. S. (2011). The Mini-IPIP6: Validation and extension of a short measure of the Big-Six factors of personality in New Zealand. *New Zealand Journal of Psychology (Online)*, 40(3), 142.

The Mini IPIP6

Item

1. Am the life of the party.
2. Sympathize with others' feelings.
3. Get chores done right away.
4. Have frequent mood swings.
5. Have a vivid imagination.
6. Feel entitled to more of everything.
7. Don't talk a lot.
8. Am not interested in other people's problems.
9. Have difficulty understanding abstract ideas.
10. Like order.
11. Make a mess of things.
12. Deserve more things in life.
13. Do not have a good imagination.
14. Feel others' emotions.
15. Am relaxed most of the time.
16. Get upset easily.
17. Seldom feel blue.
18. Would like to be seen driving around in a very expensive car.
19. Keep in the background.
20. Am not really interested in others.

21. Am not interested in abstract ideas.
 22. Often forget to put things back in their proper place.
 23. Talk to a lot of different people at parties.
 24. Would get a lot of pleasure from owning expensive luxury goods.
-

Scoring instructions. First, reverse code the following items: 6, 7, 8, 9, 11, 12, 13, 15, 17, 18, 19, 20, 21, 22, and 24. Next, create an average score for the four items assessing each dimension of personality. Extraversion: 1, 7, 19 and 23. Agreeableness: 2, 8, 14 and 20. Conscientiousness: 3, 10, 11 and 22. Neuroticism: 4, 15, 16 and 17. Openness to Experience: 5, 9, 13 and 21. Honesty-Humility: 6, 12, 18 and 24.

Item 4: The Cheating Achievement Self-Efficacy Questionnaire (CASEQ)

PsycTESTS Citation:

Umaru, Y. (2013). Cheating Achievement Self-Efficacy Questionnaire [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t33456-000>

Instrument Type: Inventory/Questionnaire

Version Attached: Full Test

Test Format:

The 21-item Cheating Achievement Self-Efficacy Questionnaire was structured on the 4-point point Likert-Type Scale of Always (A) Sometimes (S), Rarely, (R) to Never (N) rated 4,3,2 and 1 respectively.

Source:

Supplied by author.

Original Publication:

Umaru, Yunusa. (2013). Moderating role of academic self-efficacy on school achievement and cheating among senior secondary school students. *Gender & Behaviour*, Vol 11(1), 5168-5174.

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Cheating Achievement Self-efficacy questionnaire (CASEQ)

Item	Always (4)	Sometimes (3)	Rarely (2)	Never (1)
A	Cheating			
1	If I am opportune to see the question paper before the examination I will surely pass			
2	I cheat in examination due to lack of confidence in myself			
3	I don't have enough time to read for examination hence the interest in cheating			
4	Cheating in examination makes me feel guilty			
5	Cheating is not necessary if one has read well before the examination			
6	No matter how hard you read, if you don't cheat you will fail			
7	Some teachers encourage cheating during the examination			
8	Cheating is encouraging since many people who cheat often escape punishment			
9	I will cheat in examination if my parents give their support			
10	Most parents encourage their children to cheat			

11	Only people that cheat have high scores in internal and external examinations
B	Academic Achievement
12	My overall cumulative grade point average above all subject is satisfactory
13	Overall school performance during the pass year is poor
C	Academic Self-Efficacy
14	I have confidence in my ability to do school work
15	I have all the skills needed to do very well at school
16	I have the ability to successfully perform well
17	My ability to do well in school is slow
18	I am weak in doing school work
19	I have no confidence in performing well in school examination
20	I am one of the best student in school subjects
21.	I don't feel sure about myself in problem solving

Scoring Key: Scale of Always (A), Sometimes (S), Rarely (R), to Never (N) rated 4, 3, 2 and 1 respectively.

Item 5: The Occupational Self-Efficacy Scale (OSES)

Instrument Type: Inventory/Questionnaire
Version Attached: Full Test

Test Format:

This 6-item measure utilizes a 6-point Likert-type scale ranging from 1 (not at all true) to 6 (completely true).

Source: Rigotti, T., Schyns, B., & Mohr, G. (2008). A short version of the occupational self-efficacy scale: Structural and construct validity across five countries. *Journal of Career Assessment*, 16(2), 238-255. doi: 10.1177/1069072707305763

Occupational Self-Efficacy Scale

Item

-
- | | |
|---|--|
| 1 | I can remain calm when facing difficulties in my job because I can rely on my abilities. |
| 2 | When I am confronted with a problem in my job, I can usually find several solutions. |
| 3 | Whatever comes my way in my job, I can usually handle it. |
| 4 | My past experiences in my job have prepared me well for my occupational future. |
| 5 | I meet the goals that I set for myself in my job. |
| 6 | I feel prepared for most of the demands in my job. |
-

Item 6: The Student Self-Perceived Employability Scale (SSPES)

Instrument Type: Rating Scale
Version Attached: Full Test

Test Format:

This 16-item measure presented as 8 paired statements, utilizes a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Source: Rothwell, A., Jewell, S., & Hardie, M. (2009). Self-perceived employability: Investigating the responses of post-graduate students. *Journal of Vocational Behavior*, 75(2), 152-161. doi: 10.1016/j.jvb.2009.05.002

Student Self-Perceived Employability

Item

- 1a. I achieve high grades in relation to my studies.
- 1b. I regard my academic work as top priority.
- 2a. Employers are eager to employ graduates from my University.
- 2b. The status of this University is a significant asset to me in job seeking.
- 3a. Employers specifically target this University in order to recruit individuals from my subject area(s).
- 3b. My University has an outstanding reputation in my field(s) of study.
- 4a. A lot more people apply for my degree than there are places available.
- 4b. My chosen subject(s) rank(s) highly in terms of social status.
- 5a. People in the career I am aiming for are in high demand in the external labour market.
- 5b. My degree is seen as leading to a specific career that is generally perceived as highly desirable.

6a. There is generally a strong demand for graduates at the present time.

6b. There are plenty of job vacancies in the geographical area where I am
looking.

7a. I can easily find out about opportunities in my chosen field.

7b. The skills and abilities that I possess are what employers are looking for.

8a. I am generally confident of success in job Interviews and selection events.

8b. I feel I could get any job so long as my as my skills and experience are
reasonably relevant.

Item 7: The Dirty Dozen (DD)

Instrument Type: Rating Scale
Version Attached: Full Test

Test Format:

This 16-item measure presented as 8 paired statements, utilizes a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Source: Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological assessment*, 22(2), 420. doi: 10.1037/a0019265

Item.

-
- | | |
|----|---|
| 1 | I tend to manipulate others to get my way. |
| 2 | I have used deceit or lied to get my way. |
| 3 | I have used flattery to get my way. |
| 4 | I tend to exploit others towards my own end. |
| 5 | I tend to lack remorse. |
| 6 | I tend to be unconcerned with the morality of my actions. |
| 7 | I tend to be callous or insensitive. |
| 8 | I tend to be cynical. |
| 9 | I tend to want others to admire me. |
| 10 | I tend to want others to pay attention to me. |
| 11 | I tend to seek prestige or status. |
| 12 | I tend to expect special favors from others. |
-

Item 8: The Basic Psychological Needs Satisfaction and Frustration Scale –
General Measure (BPNSF-GM)

Instrument Type: Inventory/Questionnaire
Version Attached: Full Test

Test Format:

This 24-item measure utilizes a 5-point Likert-type scale ranging from 1 (not true at all) to 5 (completely true).

Source: Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., . . . Mouratidis, A. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*(2), 216-236. doi: 10.1007/s11031- 014-9450-1

Item Content of BPNSF-GM

Item No.	Text
1	I feel a sense of choice and freedom in the things I undertake.
2	Most of the things I do feel like “I have to”.
3	I feel that the people I care about also care about me.
4	I feel excluded from the group I want to belong to.
5	I feel confident that I can do things well.
6	I have serious doubts about whether I can do things well.
7	I feel that my decisions reflect what I really want.
8	I feel that people who are important to me are cold and distant towards me.
9	I feel disappointed with many of my performance.
10	I feel my choices express who I really am.
11	I feel pressured to do too many things.
12	I feel close and connected with other people who are

important to me.

- 13 I have the impression that people I spend time with dislike me.
 - 14 I feel competent to achieve my goals.
 - 15 I feel insecure about my abilities.
 - 16 I feel I have been doing what really interests me.
 - 17 My daily activities feel like a chain of obligations.
 - 18 I experience a warm feeling with the people I spend time with.
 - 19 I feel the relationships I have are just superficial.
 - 20 I feel I can successfully complete difficult tasks.
 - 21 I feel like a failure because of the mistakes I make.
 - 22 I feel forced to do many things I wouldn't choose to do.
 - 23 I feel connected with people who care for me , and for whom I care.
 - 24 I feel capable at what I do.
-

Appendix C: Additional instruments referred to in questionnaire construction

Item 1: HEXACO 60 item version

Source: Ashton, M. C., & Lee, K. (2009). The HEXACO–60: A short measure of the major dimensions of personality. *Journal of Personality Assessment, 91*(4), 340-345. doi: 10.1080/00223890902935878

*Instructions, Items, and Scoring of the HEXACO–60

On the following pages, you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then indicate your response using the following scale: 5=strongly agree 4=agree 3=neutral (neither agree nor disagree) 2=disagree 1=strongly disagree. Please answer every statement, even if you are not completely sure of your response.

-
1. I would be quite bored by a visit to an art gallery.
 2. I plan ahead and organize things, to avoid scrambling at the last minute.
 3. I rarely hold a grudge, even against people who have badly wronged me.
 4. I feel reasonably satisfied with myself overall.
 5. I would feel afraid if I had to travel in bad weather conditions.
 6. I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.
 7. I'm interested in learning about the history and politics of other countries.
 8. I often push myself very hard when trying to achieve a goal.
 9. People sometimes tell me that I am too critical of others.
 10. I rarely express my opinions in group meetings.
 11. I sometimes can't help worrying about little things.
 12. If I knew that I could never get caught, I would be willing to steal a million dollars.
 13. I would enjoy creating a work of art, such as a novel, a song, or a painting.

14. When working on something, I don't pay much attention to small details.
15. People sometimes tell me that I'm too stubborn.
16. I prefer jobs that involve active social interaction to those that involve working alone.
17. When I suffer from a painful experience, I need someone to make me feel comfortable.
18. Having a lot of money is not especially important to me.
19. I think that paying attention to radical ideas is a waste of time.
20. I make decisions based on the feeling of the moment rather than on careful thought.
21. People think of me as someone who has a quick temper.
22. On most days, I feel cheerful and optimistic.
23. I feel like crying when I see other people crying.
24. I think that I am entitled to more respect than the average person is.
25. If I had the opportunity, I would like to attend a classical music concert.
26. When working, I sometimes have difficulties due to being disorganized.
27. My attitude toward people who have treated me badly is "forgive and forget."
28. I feel that I am an unpopular person.
29. When it comes to physical danger, I am very fearful.
30. If I want something from someone, I will laugh at that person's worst jokes.
31. I've never really enjoyed looking through an encyclopaedia.
32. I do only the minimum amount of work needed to get by.
33. I tend to be lenient in judging other people.
34. In social situations, I'm usually the one who makes the first move.
35. I worry a lot less than most people do.
36. I would never accept a bribe, even if it were very large.
37. People have often told me that I have a good imagination
38. I always try to be accurate in my work, even at the expense of time.
39. I am usually quite flexible in my opinions when people disagree with me.
40. The first thing that I always do in a new place is to make friends.

41. I can handle difficult situations without needing emotional support from anyone else.
 42. I would get a lot of pleasure from owning expensive luxury goods.
 43. I like people who have unconventional views.
 44. I make a lot of mistakes because I don't think before I act.
 45. Most people tend to get angry more quickly than I do.
 46. Most people are more upbeat and dynamic than I generally am.
 47. I feel strong emotions when someone close to me is going away for a long time.
 48. I want people to know that I am an important person of high status.
 49. I don't think of myself as the artistic or creative type.
 50. People often call me a perfectionist.
 51. Even when people make a lot of mistakes, I rarely say anything negative.
 52. I sometimes feel that I am a worthless person.
 53. Even in an emergency I wouldn't feel like panicking.
 54. I wouldn't pretend to like someone just to get that person to do favours for me.
 55. I find it boring to discuss philosophy.
 56. I prefer to do whatever comes to mind, rather than stick to a plan.
 57. When people tell me that I'm wrong, my first reaction is to argue with them.
 58. When I'm in a group of people, I'm often the one who speaks on behalf of the group.
 59. I remain unemotional even in situations where most people get very sentimental.
 60. I'd be tempted to use counterfeit money, if I were sure I could get away with it.
-

Scoring of HEXACO–60 Scales (see Table 1 for Facet-Level Scales):Honesty-Humility:6, 12R, 18, 24R, 30R, 36, 42R, 48R, 54, 60REmotionality:5, 11, 17, 23, 29, 35R, 41R, 47, 53R, 59RExtraversion:4, 10R, 16, 22, 28R, 34, 40, 46R, 52R, 58Agreeableness (versus Anger):3, 9R, 15R, 21R, 27, 33, 39, 45, 51,

57RConscientiousness:2, 8, 14R, 20R, 26R, 32R, 38, 44R, 50, 56ROpenness to
Experience:1R, 7, 13, 19R, 25, 31R, 37, 43, 49R, 55R(R indicates reverse-scored
item.)

Item 2: The Brief HEXACO Inventory (BHI)

De Vries, R. E. (2013). The 24-item brief HEXACO inventory (BHI). *Journal of Research in Personality*, 47, 871-880

The Brief HEXACO Inventory (BHI) Instructions: Please indicate to what extent you agree with the following statements, using the following answering categories: 1=strongly disagree, 2=disagree, 3=neutral (neither agree, nor disagree), 4=agree, and 5=strongly agree.

Brief Hexaco Inventory

Item

1. I can look at a painting for a long time.
2. I make sure that things are in the right spot.
3. I remain unfriendly to someone who was mean to me.
4. Nobody likes talking with me.
5. I am afraid of feeling pain.
6. I find it difficult to lie.
7. I think science is boring.
8. I postpone complicated tasks as long as possible.
9. I often express criticism.
10. I easily approach strangers.
11. I worry less than others.
12. I would like to know how to make lots of money in a dishonest manner.
13. I have a lot of imagination.
14. I work very precisely.
15. I tend to quickly agree with others.
16. I like to talk with others.
17. I can easily overcome difficulties on my own.
18. I want to be famous.
19. I like people with strange ideas.
20. I often do things without really thinking. 2
21. Even when I'm treated badly, I remain calm.
22. I am seldom cheerful.

23. I have to cry during sad or romantic movies.
24. I am entitled to special treatment.
-

Scoring table BHI (recode scores of items followed with an 'R' as follows: 501, 402, 303, 204, 105): Honesty-Humility: 6 (Sincerity), 12R (Fairness), 18R (Greed Avoidance), 24R (Modesty); Emotionality: 5 (Fearfulness), 11R (Anxiety), 17R (Dependence), 23 (Sentimentality); eXtraversion: 4R (Social Self-esteem), 10 (Social Boldness), 16 (Sociability), 22R (Liveliness); Agreeableness: 3R (Forgiveness), 9R (Gentleness), 15 (Flexibility), 21 (Patience); Conscientiousness: 2 (Organization), 8R (Diligence), 14 (Perfectionism), 20R (Prudence); Openness to Experience: 1 (Aesthetic Appreciation), 7R (Inquisitiveness), 13 (Creativity), 19 (Unconventionality).

Item 3: The Index of Sense of Self-Efficacy Scale (ISSES)

PsycTESTS Citation:

Law, F. M., & Guo, G. J. (2015). Index of Sense of Self-Efficacy Scale [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t43128-000>

Instrument Type: Inventory/Questionnaire
Version Attached: Full Test

Test Format:

This 20-item measure utilizes a 5-point Likert-type scale ranging from 0 (totally disagree) to 4 (totally agree).

Source:

Law, Fang Mei, & Guo, Gwo Jen. (2015). The impact of reality therapy on self-efficacy for substance-involved female offenders in Taiwan. *International Journal of Offender Therapy and Comparative Criminology*, Vol 59(6), 631-653. doi: 10.1177/0306624X13518385, © 2015 by SAGE Publications. Reproduced by Permission of SAGE Publications.

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Index of Sense of Self-Efficacy Scale

Item

- 1 I believe I am a useful person, or at least not more unhelpful than others.
- 2 I feel I am not a useful person.
- 3 I usually cannot face difficult situations.
- 4 My family and friends pay a lot of attention to me.
- 5 I believe I am not as smart as others..
- 6 I find it difficult to make decisions.
- 7 If I make plans first, I usually can accomplish my tasks on time.
- 8 With the appropriate environment and opportunities, I would be able to stop using drugs.
- 9 I usually do not believe that I can complete tasks assigned to me by others.
- 10 I get along with others.

- 11 I am satisfied with my social abilities.
 - 12 I do not like myself.
 - 13 I feel I cannot handle tasks successfully
 - 14 I usually need to make a plan first and then follow it step-by-step.
 - 15 I feel I cannot perform up to my expectations.
 - 16 I hesitate when I have to complete a task by myself.
 - 17 I always complete my job duties actively without needing reminders from others.
 - 18 Just like many others, I am able to handle things in the proper manner.
 - 19 When facing a problem, I always take actions to solve it.
 - 20 I am very uncomfortable with holding responsibility.
-

Scoring: Ten of the questions (2, 3, 5, 6, 9, 12, 13, 15, 16, 20) were reverse questions, and their scores had to be appropriately converted prior to data analysis.

Appendix D: The Windsor Deception Checklist

The test reproduced here is the Windsor Deception Checklist which was used to assess the need to deceive respondents of Study 2 as to the true purpose of the survey.

Instrument Type: Checklist

Version Attached: Full Checklist

Test Format:

10 questions; Yes/No responses.

Source: Pascual-Leone, Antonio, Singh, Terence, & Scoboria, Alan (2010).

Using deception ethically: Practical research guidelines for researchers and reviewers. *Canadian Psychology/Psychologie canadienne*, Vol 51(4), 241-248. doi: 10.1037/a0021119

Windsor Deception Checklist

1. Researchers must justify their use of a deception procedure. This means they should Consider and indicate how the benefits of the deception outweigh the potential costs.
Have all reasonably possible costs and benefits been accounted for in considering whether deception may be justified? (Y/N)
2. If deception is needed for the results of this study, the degree to which research participants are misled should be minimized wherever possible. Again this has to do with being sure the benefits of the deception outweigh the costs.
Is there any way that this study could be done either without, or with a lesser degree of, deception? (Y/N)
3. Some research paradigms in psychology typically make use of deception and these paradigms are well documented in peer-reviewed literature. If the study makes use of an established or previously used deception-paradigm, the research should

a) cite research relevant to the procedure, especially research indicating whether there were or were not harmful effects, and

b) provide and consider the year of the study on which a procedure is based.

Does this study use a new use a new deception paradigm that is unknown in the literature? (Y/N)

4. Given that level of risk is one of the key elements for deciding if a research proposal needs to be reviewed more extensively, there should be some explanation of the risks for a study that involves deception (including physical, psychological, and all other types of risk).

Are there possible risks that may have been overlooked in the description of this study? (Y/N)

5. *Is the deception associated with more than minimal risk? (Y/N)*

6. Research manipulations intended to affect participants' health puts them in a unique place of vulnerability. It may be acceptable to inform participants that they will be randomised between interventions without disclosing which group they will be in. However, it is not acceptable to actively mislead or deceive participants about issues related to clinical or diagnostic interventions.

Does the deception used in this study involve a therapeutic intervention, or other clinical or diagnostic interventions? (Y/N)

7. Sometimes deception is used to maximize participants' emotional involvement in a study or to shift their expectations in some way. If a study does this, then before moving on to a debriefing, it is often good practice to:

a) Provide a follow-up (corrective) intervention to help participants return to a positive or at least neutral state after data are collected for the study. This "mood neutraliser" for instance, could be in the form of a relaxation exercise or imagining/remembering some positive experience, and

b) after a "mood neutraliser", it is good practice to ask participants to rate their current level of distress or anxiety on a scale of 1 to 10; this is a manipulation check to ensure that participants feel "normal" again before they leave.

As the study is, are there any reasons to believe that, when leaving the study, participants may have lingering bad feelings or high arousal as a result of

participating in the study? (Y/N)

8. A debriefing in which the true nature of the study is disclosed to participants and in which they have an opportunity to ask questions is an important part of concluding data collection from human participants. A good debriefing can be done in several ways but it usually involves at least six points:
- a) engage the participant as a collaborator to discuss the process he or she was involved in,
 - b) disclose to the participant, in plain everyday language and in sufficient detail, exactly what has happened in the data collection process and the true nature of the study,
 - c) explain the rationale for using deception in this particular study,
 - d) provide an opportunity for participants to ask questions of clarification,
 - e) provide, in writing, resources and/or contacts for participants who may have concerns that have come to bear through the nature of the study, and
 - f) explicitly confirm that the individual continues to consent to being a participant in the research; this, in light of his or her new and full understanding of the study's purpose and procedures.

Are any of the six debriefing points above, inadequate or left out?

9. In general, and especially when deception is part of the design, debriefing must take place immediately after data collection is complete. Delaying debriefing as a way of trying to ensure participants do not disclose the nature of a study is unacceptable practice. (Note: Once the rationale for deception has been made clear then researchers may ask participants not to discuss the study with others. Generally, the better participants understand why they were deceived the more likely they are to cooperate and keep the study's true nature confidential).

Is there any delay between a participant's involvement and the delivery of debriefing? (Y/N)

10. Ultimately, research participants have volunteered to participate in whatever the study entails. In doing so they entrust themselves to the researcher and the institution that is hosting the research. As part of the effort to protect participants'

dignity, it is important to ensure that they do not feel embarrassed or betrayed as a result of the research procedures.

When the study and debriefing is complete, is there a reasonable possibility that participants may still perceive the deception as having been a betrayal of trust, somehow unfair, and/or leave them feeling denigrated in any way? (Y/N)
