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**FOOD FOR THOUGHT: AN EXPLORATION OF
THE RELATIONSHIP OF ACADEMIC CONFIDENCE
TO ACADEMIC SUSTENANCE IN AUSTRALIAN
UNDERGRADUATE STUDENTS**

KATHRYN HILL

A Thesis presented for the degree of Doctor of Education



University of Durham

England

December 2016

Dedicated to Darryl, always

Food for Thought: an exploration of the relationship of Academic Confidence
to Academic Sustenance in Australian undergraduate students

Kathryn Hill

Submitted for the degree of Doctor of Education December 2016

Abstract

An under-reported aspect of student confidence is the relationship between past academic experiences and levels of Academic Confidence. It was theorised that levels of Academic Confidence might be influenced by an element conceptualised as Academic Sustenance. Using the Sander and Sander's Academic Behavioural Confidence (ABC) scale, a sample of Australian undergraduate first year university students were surveyed to determine an Overall Academic Confidence (OAC) score.

Students with High OAC rankings reported academically sustaining experiences, which assisted in the development of Academic Sustenance, building their Academic Confidence and allowing them to deal with academic challenges more readily. Students who had limited academically sustaining experiences had lower levels of Overall Academic Confidence, which gave them a less optimistic view of their academic abilities.

Academic Sustenance consists of four aspects: Encouragement, Drive, Grounding and Efficacy (EDGE). These appear to be non-hierarchical although the aspect of Encouragement was found to exert more developmental opportunities for building Academic Confidence through the influence of Academic Sustenance.

Targeted support structures offered through university programs could offer progressive assistance for building Academic Confidence and cultivating Academic Sustenance, which could help more students to cultivate positivity and a more optimistic perception of their academic abilities.

Declaration

This dissertation is the result of my own work unless referenced to the contrary in the text and includes nothing that is the outcome of work done in collaboration except where specifically indicated in the text. No part of this thesis has been submitted elsewhere for any other degree or qualification.

Kathryn Hill

Durham University

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Chapter 1 Introduction

1.1 Outline of the study: the perception of ability and achievement

The central ideas of this thesis entitled: “Food for Thought: an exploration of the relationship of Academic Confidence to Academic Sustenance in Australian undergraduate students” has as its impetus the intention to examine possible relationships between student Academic Confidence with the student’s own perceptions of ability in the course of those tasks, along with potential influences from another element, conceptualised as Academic Sustenance. The characteristics of Academic Sustenance and its possible relationship to Academic Confidence is outlined and discussed in Chapter 2 in order to establish the basis for its conceptualisation.

Academic Confidence is theorised as how students differ in the way they anticipate and respond to the demands of studying. Sander and Sanders (2006, pg. 34), who designed and implemented the initial explorations into Academic Confidence, define it as:

“the strong belief, firm trust or clear expectation” about how students approach their studies”.

An exploration of Academic Confidence could adopt a number of different theoretical frameworks in order to support the work. It could, for example, focus on locating confidence within the approaches to learning in higher education literature (See Richardson (2005 and 2011), Entwistle (2009) and Trigwell and Prosser (1991)) or it could, as this thesis has done, take as a theoretical framework, the psychological dimensions of the student as a starting point.

The Sander and Sanders’ instrument selected in this thesis and discussed in Chapter 3, Section 3.6, draws on the field of positive psychology. It locates Academic Confidence within the psychological domain and relates it to self-efficacy and self-esteem. For this reason it is argued that whilst the approaches to learning literature would and could add another dimension to this study’s features, it is not the direction

or intention of this thesis. Those approaches therefore have not been adopted here, given that the psychological literature reviewed in Chapter 2 links more directly to Sander and Sanders' definitions of Academic Confidence.

The dominant themes of the thesis are therefore, not how students approach learning but instead explore possible strategies and mechanisms used to support their perceptions of success in learning. As such, this study pursues greater understanding as to acuties of achievement and the relevance of Academic Confidence in this context. This difference might be expressed in ways that vary between individuals; however, the adoption, development and deployment of such strategies remain an important aspect of successful university existence. It is important because the way in which students master the demands and requirements of academic tasks and challenges can establish a pathway which signal achievement and success in future endeavours. For example, being able to manage multiple timelines in order to meet assessment deadlines or to successfully plan a research project has application in a broader sense outside of academic pursuits.

The situation of Academic Confidence therefore forms part of the exploration into the psychology of the learner. Several investigative studies considering the differences between beliefs held by students hold that Academic Confidence is part of two related concepts, those of self-concept and self-efficacy (see Stankov *et al.* (2014), Chen, Chiu and Wang (2015) and Schunk and Bursuck (2015)). Both are part of the over-arching literature of motivation and are central in the taxonomy of understanding students as learners.

Having outlined the basis for the study, the following section lays out key definitions of terms used throughout the thesis.

1.2 Academic Confidence: central definition and outline

Throughout this thesis, the following definition is used to underpin the interpretation of Academic Confidence. Developed by Sander and Sanders as the basis of their exploration into student confidence (2006, pg. 29) and called Academic

Behavioural Confidence (ABC); referred to as Academic Confidence throughout this thesis, their definition is:

“...the way in which students differ in their approach to their actions, in order to achieve their academic objectives” .

Sander and Sanders (2006) also argue that Academic Confidence is distinct from a generalized perception of confidence, in that it bridges the gap between self-efficacy and self-concept constructs. This is a key differentiation, as it indicates that Academic Confidence is relative to but not dependent on, the individual's view of their ability to achieve and the actual performance of the individual. This situates Academic Confidence between capability and determination, which in turn, forms part of the predominant complement of self-efficacy, self-concept, self-esteem and motivation constructs.

The distinction between the two terms is important to clarify in order to understand one of the loci of this thesis; that different and feasibly predictable levels of Academic Confidence may exist between students due to different academic experiences, which effect their perceptions of ability. Academic Confidence overlaps with the ideas of self-concept, self-efficacy and self-esteem, but is distinct within its construct of perception of future ability. The relationship between these concepts will be explored in the literature review in Chapter 2. In widening and strengthening the known whilst encouraging further exploration into related aspects of student confidence and constructs, greater understanding into how students conceptualise and manage their perceptions of ability and future success can be established. The knowledge gained from such explorations assists with creating more meaningful educational opportunities and remains a compelling force behind much of contemporary academic design. Such designs inform course and program direction and are a strong motivation for students who want to gain the best possible experience during the course of their undergraduate program.

That is why a “good” education as an archetype of the resultant knowledge, skills and talents developed by students is ever more important as part of the overall

university experience. The resultant confidence is, as Pajares (2002, pg. 116) points out:

“the result of what they (students) come to believe they have accomplished and can accomplish”.

This is a critical junction, as academic performance is a construct of numerous behaviours and actions, all of which combine to form a perception of capability. This perception underpins an individual’s belief in their self. The self-efficacy beliefs developed as a result will describe a student’s potential achievements either positively or negatively, dependent on the number of experiences of each type.

For this reason, it is important to understand why someone might respond the way they do in a particular situation. In recognising this inclination, the necessary steps can be applied to guide or develop that student’s own ability to understand and react more positively in similar circumstances in the future. In that way, a student’s sense of ability and potential success can be developed and nurtured. This action is central to the heart of this thesis; that a student’s past academic experiences might influence and possibly predict future perceptions of performance.

Academic Confidence therefore allows insight into a particular view of a student’s psychology; that is, their anticipation of ability. It is not about the way in which students learn, which in itself has a rich and deep field of existing research but rather, the expectation and reaction to challenge. Simply put, self-constructs are built on how one reacts to adversity; thus in understanding how students build their reactive abilities, positive developmental and learning experiences can be established by educational providers at both individual and organisational levels.

1.3 The case for investigating Academic Confidence

The relevance of this study from a theoretical standpoint serves two purposes, firstly, that in obtaining insight as to how students might benefit from strategically planned activities supporting shifts in thinking habits, educational institutions gain a deeper knowledge about their students and their needs. This

knowledge is beneficial when designing support systems so that specific types of assistance are available. Secondly, it allows for better understanding of those at risk, that is, those who might struggle to recover from setbacks or who lack certain academic skill proficiencies. If patterns of self-belief in ability could be adjusted positively, students may be able to face learning challenges with a variety of tools, rather than drawing on previously tried techniques they perceive as useless or impractical.

Such positive strategies may, as Sander and Sanders (2009, pg. 20) point out give students 'competence and confidence' and thus realize what Claxton terms: 'real-life, lifelong learners' (2002, pg. 2). The concept of 'Life Long Learning' is oft-used university rhetoric describing outcomes of tertiary study programs. In reality, 'learning' means students' facing challenges in an unfamiliar environment. Some of the mechanisms and mind sets of those rising to these challenges and those who fail to do so will be explored in this study. As such, the findings of this investigation may benefit educators looking for ways to improve the overall student experience and more importantly for the individual, build proficiencies favoured by real-world occupations like perseverance, problem solving and discipline.

1.4 Improved Academic Confidence: implications for Higher Education

There are significant implications for Higher Education (HE) curriculum development and for the process of teaching for both teachers and students. Understanding the links between Academic Confidence and related aspects of students and their learning approaches must benefit both individual and institution alike. Sander (2009, pg. 39) points out that student' expectations of teaching and learning are an area warranting further exploration. He argues:

"...enhancing our understanding of our students as learners is consonant with current expectations of the university student in a learning environment".

As previously discussed, increasing the understanding of how students approach their studies remains a key area for on-going research. Much insight has been gained in expanding the understanding of motivation, self-efficacy and confidence through studies conducted by Bandura (1997), Schunk (1991), Usher & Pajares (2008) and Martin (2009). Gore and Rogers (2010) and Lent *et al.* (1997) similarly suggest that studying and its related activities are core skills of such academic experiences.

Acquiring competencies in such skills has predictable benefits, such as reduced dropout rates, (Claxton, 2002) and improved grade point averages, (Sander, 2009). Despite such benefits, this aspect of research is under-reported as to why some students have higher levels of confidence in their abilities to meet their study objectives whilst others downgrade the importance of studying. What is universal to such research is the desire to understand the intrinsic differences in those students managing well, compared to those managing less well.

1.5 Potential benefits: confidence based expectations and university support

An equally imperative and interlocking issue is the increasing urgency for universities in meeting the demands of students for both a quality education as well as a positive educational experience. Education, as an agency for career prospects by way of specific credentials generated by the degree earned, is perceived more than ever as the doorway to an individual's future success.

Prospective students are scrutinising universities and their programs more keenly. Universities themselves are feeling the pressure of this market economy perspective. In striving to provide a positive experience, it is speculated that a confidence-based curriculum might well be the point of difference enabling universities to meet the expectations of both their students academically as well as economically. It is important to recognise that in order to achieve the most from education; students must engage with new ideas, develop critical thinking abilities and

demonstrate successful time management strategies in order to meet their study commitments.

For that reason, the pedagogical implications of higher education institutions considering individual student abilities with an emphasis on identifying Academic Confidence as part of the holistic consideration of those abilities, would play an important role in shifting the prevailing view of education as purveyors of economically pertinent knowledge. Education should not be a commodity readily bought and fitted to a mass market, but one that requires equal quality of student engagement as well as worthwhile teaching.

1.6 The Pervasive influence of educational opportunities

Education and the level of social and cultural capital built as a result, is fundamental in the influences students develop and carry forward into their future lives. The manner in which they interact with their community, the contributions they make to the betterment of society and the legacy bequeathed for forthcoming generations; all can be attributed to the power of knowledge sought and gained through education. The onus lies more heavily on universities and educational providers to ensure that the knowledge, skills and abilities gained through a degree program are relevant, significant and appropriate in underscoring such aspirations.

Indeed, educational benefits take on an ever-increasing importance in contemporary society. Nowadays, having a university degree of some kind is considered the minimum educational standard required to enter the job market with a view to a future career and success. Those lacking such qualifications are considered relegated to a group James and Jenks (1996, pg. 11), utilising Herrnstein and Murray's (1996) term "the underclass", maintain will be limited to lower standards of income, housing and employment; in short, they will not rise to the level of their potential. The economic, social and moral implications of the restrictions and possible deprivations of non-achievement, is a potent influence behind many people's desire to seek an education with a view to improving their life's opportunities and to be successful.

1.7 Success and its implication in academic terms

“Success” has different connotations. In contemporary societies, some indicators of success might include an individual's social status, financial standing or field of employment. Being in receipt of a “good education” is central to achieving many contemporary definitions of success. Education and economic prosperity have become inexorably linked (Wolf, 2004). The UK’s Confederation of British Industry (CBI) expresses the view that education is linked to both success and growth in the community (CBI, 1994). Both employers and community in general accept Denison’s (1962, 1964) seminal definition of success as the ‘advantage of knowledge’. As a result, universities continue to play an important role within the community and as a part of the social fabric of the collective within which they are situated.

Brown (2003, pg. 4) argues that universities and academic institutions serve both as cultivation hubs, preparing young people for future, adults roles and secondly, as gateways to selection, helping graduates take their knowledge, skills and abilities into the occupational constructs of the community. Those individuals pursue life goals in order to meet their social and economic needs. Education becomes the conduit and the means for shaping lives and moulding futures. Although Wolf (2004, pg. 318) points out that education should not be considered as the ubiquitous entryway to economic success, she concedes there is a “consistent and positive relationship between length of education and earnings”.

If this view of success is accepted in the case of universities, then Academic Confidence may in itself be linked to this idea of success. This is an important point for as the scrutiny increases on the “value” of university degrees and their perceived relationship to future career trajectories and social standing, the pressure increases for universities and other academic providers to make good on these expectations by individuals and communities in turn. The changing climate of Higher Education (HE) has transitioned to a marketising approach, which in turn has led to students wanting a quantifiable outcome from their degree. This notion of how universities might meet such expectations is discussed further in Chapter 7.

1.8 Education and long-term benefits

The professed benefits gained through education is a critical point, as western societies have invested in education systems as a means of establishing cultural and moral values to support individuals entering adult life. The overall aim of these systems is to ensure individuals have developed their intellectual potential and abilities to an extent that enables them to take meaningful roles in society. In the US and UK, these principles are embodied currently in the “No Child Left Behind” (2001) and “Every Child Matters” (2003) policies respectively. Those denied such educational opportunities might find their chances for achieving “success” decrease in comparison to others.

To achieve success on these terms requires personal qualities that enable a person to benefit. Determination to “succeed” is one: a person determines how s/he will conduct their life and the likelihood of success they will achieve. For example, Dickens’s protagonist Pip in “Great Expectations” recognizes this when he decides that the way to transform his standing in life is through learning. Pip declares: “the best notion I had in getting on in life was to make myself uncommon.” (Chapter 10, pg. 73) By “uncommon”, Pip recognizes the gap between “common” or less educated people and those who are better educated, or “uncommon”. Once his lack of education is humiliatingly exposed, Pip is determined to work through the challenges along his chosen path and establish a conduit that will result in the achievement he desires.

Guy Claxton (2002, pg. 17) pinpoints this desire, suggesting that “learning to learn” is a method to help build learning power. The factors deemed important for success are described as the four “R’s” – Resilience, Resourcefulness, Reflectiveness and Reciprocity. He categorizes each with specific academic tasks, suggesting focusing on skill development for each area can enhance learning. Claxton also points out that learning is dependent on a person’s “attitudes, values beliefs and emotions” (2002, pg. 55), highlighting the importance of understanding the context of those attitudes and beliefs, whilst building a more accurate image of the psychological disposition of students and how they approach their time at university.

As the discussion thus far has made clear, the benefits of deeper research into Academic Confidence and possible elements of influence have a number of short and long-term possibilities. These will be discussed further in Chapter 7. The following sections will detail the framework for the study and clarify terminology and other relevant data.

1.9 Framework for this study

This investigation is framed within the purview of positive psychology, with the assumption that there is an intrinsic motivation present in commencing students to enter into their studies with a sense of purpose and outlook. Sander (2009, pg. 38) likewise points out that students also have expectations of the teaching, assessment and learning support available to assist with their overall academic experience.

It is to this purpose that understanding Academic Confidence is important, as students will have very different experiences during the course of their studies, thus such experiences will colour and influence their choices during and post-university. This aspect warrants future and further study, to explore the links between student confidence and teaching expectations, however, it is outside the scope of this thesis, which is explained in the following sections.

1.9.1 Definition of Student status

As the sample comprises students from a number of different countries, in order to clarify such differences, the terms “Home” and “International” are used for identification and categorisation. For clarification, “Home” students are those whose fee-paying status classifies them as Australian residents. “International” students are those whose fee-paying status indicates they are studying in Australia on temporary student visas.

One of the objectives of this study was to investigate if different academic experiences affected students and what, if any, the implications of such experiences might mean. The findings would be of benefit for both pedagogical and support

practices for universities not just in Australia but for any country with a burgeoning diversity in its university student population.

1.10 Study Backdrop

In seeking a better understanding of the way in which individuals react to certain types of academic challenges; in this instance, how levels of Academic Confidence might influence perceptions of ability, educational researchers have had an array of areas from which to select, in order to concentrate their investigations. The genesis of this study was founded on my experiences whilst working offshore in Higher Education (HE) in a number of locations throughout South East Asia.

During those years, much of my focus was on assisting students entering HE for the first time, or those adults topping up their academic qualifications after a gap of many years. As a Lecturer and Learning Advisor I saw first-hand the numbers of students questioning their abilities and exhibiting anxiety and bewilderment at their progress when contrasting their own academic performance to that of their classmates. As a result I began to notice similarities of issues described by students when discussing their academic difficulties. The emerging themes were: dismay at progress, concern that classmates were doing better, consternation with letting down their family's expectations and requests for assistance in building academic skills. These four notions of Apprehension, Performance Contrast, Performance Expectation and Skill Building, appeared to recur over the years, in each successive groups of students. The beginning of this investigation therefore began with the notion as to whether there might be different levels of Academic Confidence between students with different academic experiences.

On returning to full time residency and recommencing work on-shore in my home country of Australia, several aspects of this issue became evident. The first was that students here also appeared to have similar issues with their perceptions of their academic abilities. Was this the same phenomenon observed in South East Asia, that those students with different educational experiences might be struggling with their Academic Confidence?

If this were the case, then an investigation into this aspect of academic ability could be examined to determine if this was a tangible manifestation of different perceptions of ability.

1.10.1 Preliminary Stages of this study

The desire to understand more about what factors if any, influenced success in education, grew out of personal observations made while offering advice and learning strategies to students struggling with the demands of their programs. After numerous sessions of informal and formal talks with students, I became especially interested in exploring options for improving the levels of Academic Confidence demonstrated by students when commencing their studies. These sessions suggested an on-going struggle with both the physical and mental demands of study.

I also became interested in Guy Claxton's views on building learning power (2002), as they reflected several ideas formulated regarding strategies for improving student abilities based on positive learning experiences. Anticipation of the future varies greatly for individuals; as shown by the snapshot of events depicted in Section 1.10.2 of this chapter, illustrating the very different expectations held by students on campus regarding their perceptions of ability and performance.

It is noted that this study is not confined to investigating what Stankov (2010) and Durkin (2008) refer to as the "Confucian learner", that is, those students from Confucian Asian countries such as Hong Kong, South Korea, Japan, China and Macau (Stankov, 2010, p. 556). As with the majority of contemporary educational providers, university student populations in Australia hold enormous diversity. Respondents in this study came from 29 different countries, not including Australia. The diversity of the sample is illustrative of the spread of backgrounds amongst commencing students.

The next section lays out a scenario of how different students might consider the prospects of their academic program over the forthcoming years.

1.10.2 New horizons: different viewpoints

Consider the following setting. New students are gathering in study rooms and other common areas, logging on to do such tasks as looking at upcoming campus events or to start enrolling in courses. Philippa T*, who has been working for some years, is returning to university in order to top up her qualifications and improve her career opportunities. Chandra M*, a student recently arrived from India, is looking forward to gaining a degree in her chosen field. Both are beginning their undergraduate studies in the same program. Philippa T*, looking about, finds the environment very different from her memories of past schooling. The university campus is a much larger and complex environment than expected, with many more people bustling about between the buildings. Looking at her schedule, she feels both excited and anxious reading the various course descriptions and learning outcomes.

Chandra M* is also surveying the course particulars. In high school she was a high achiever; she studied hard and did well in her exams. As a result, her parents decided to send her to university in Australia to get a “good” education. She also feels nervous, but for different reasons. All around her, people are talking and laughing but she does not feel like smiling at all. Australia is not at all like where she grew up; the culture, the different sounds of people talking around her and even the strange back-to-front seasons present real challenges for someone from the other side of the globe.

As Philippa T* and Chandra M* sit side by side, looking at their screens in the student resource area, they appear no different from the many others milling around them. Nevertheless, Philippa* and Chandra* picture their lives quite differently. Chandra* feels some trepidation as she considers the years ahead – living alone, struggling with an unfamiliar language, familiarizing herself with the large campus and city and satisfying pressure from her family to do well. Philippa* is thinking about developing her knowledge about her chosen specialization, enjoying classes and listening to interesting topics discussed by her tutors and lecturers. However, she is worried that juggling the demands of work and study might be more than she can manage. School was a long time ago and she is concerned she might not know what to

do. Both students however, share the same desire: they are both keen to ensure the next three years is time well spent.

This scenario is based on actual conversations with students, detailing aspects of their memories of starting their program. It briefly illustrates one way students conceptualise their feelings and attitudes when faced with new academic and social challenges. Why some thrive in this environment whilst others do not, provides the focus for this research exploring the psychological underpinning of student attitudes to academic success and suggesting how those findings may apply more widely. With those considerations in mind the following research questions were proposed.

1.11 Thesis Research questions

In seeking to understand what it means to have Academic Confidence as a student, three central questions are proposed:

1. What particular elements or similarities do academically confident students have in common?
2. How does Academic Sustenance and past academic experiences affect students' Academic Confidence?
3. What particular aspects of this relationship are noticeable in regard to students' levels of Academic Confidence?

Each of these questions will be explored and considered, with supporting data and evidence from interview groups given as illustration for the key themes and subsequent discussion.

1.12 Organisation of the Thesis

This thesis contains seven chapters. This chapter introduces the background of the investigation and the basis for the research as delineated by the three research questions. Academic Confidence is defined for the thesis, based on the original proposition introduced by Sander and Sanders in 2003. The study's structure is outlined and definitions of terminology are given, in order to establish a succinct

understanding of the meaning of key terminology within the context of the thesis. The influence of education, success and opportunity is also discussed, exploring the notion of the future value perception of education and its professed benefits to both the individual and to society collectively.

Chapter 2's literature review considers the key ideas of self-identity, self-concepts, confidence and motivation, thus establishing the framework within which Academic Confidence is located. The background to the selection of the survey instrument, The Academic Behavioural Confidence (ABC) scale is introduced, as is the relationship between it and academic competence and self-theories. The notion of prior academic background and their influence on the individual's perception is discussed as its relationship to learning and confidence. The concept of an element encompassing emotion and positivity, conceptualised as Academic Sustenance, is introduced. A model illustrating the preliminary elements of Academic Sustenance is outlined and clarified against the research parameters.

Chapter 3 outlines the research methodology used in the study, outlining the framework and approaches of the study, along with the rationale for the selection of instruments. Chapter 4 presents the logistics and administration of the two phases of the investigation. The Pilot Study with its design and results are delineated with the subsequent effects these had on the Main Study in 2013, along with the decision to merge the data. The ethics of the study are presented, as is a discussion of the participant privacy and confidentiality measures taken throughout the study.

Chapter 5 presents the results of analysis of the data collection, which identified four factors of Academic Confidence suggesting an Overall Academic Confidence (OAC) score. The items within the ABC scale are examined and the statistical results presented in order to understand their effects in relation to an OAC ranking and possible differences between students with different academic experiences. Chapter 5 also presents the findings of the thematic analysis of the interview data. This section of the chapter delves more deeply into individual student observations as to their perceptions of ability into their academic studies and

considers those particular behaviours, which according to the parameters of the study, appear to characterise more academically confident students.

Chapter 6 discusses the overall research findings and presents the ideas which have emerged from the data, suggesting that student perceptions of ability can be identified as falling into specific categories and that these perceptions can signpost Academic Confidence when influenced by the identified elements comprising Academic Sustenance. A revised model is presented, illustrating the themes identified by the thematic analysis.

Finally, Chapter 7 discusses the investigation's principal components, reflecting on the wider aspects of the relationship between Academic Confidence and the concept of "Academic Sustenance". This element, based on the study's findings, which may influence Academic Confidence and potential success is further explored. The impact of positive, sustaining academic experiences and their implications suggesting potential shifts in an individuals' perception of ability are considered. Finally, ideas for further research, future practice as well as additional suggestions for educational practitioners are presented and discussed.

1.13 Summary

This chapter has introduced the central components of the study, discussed the organization of the thesis and outlined each chapter's main points. The questions central to the research were proposed and important definitions for understanding the distinction between students in the sample was stated. The framework encompassing those ideas was established and the key theories demonstrating the specifics of how these differences subsist were laid out.

The following chapter presents the setting and literature framework for the study and considers the way in which contributions of the key theorists might further the understanding of Academic Confidence. The implications for creation of a deeper awareness of how students' perceptions might be shaped by previous academic

experiences are discussed and the notion of the element of Academic Sustenance is proposed as having influence on rebalancing those perceptions.

Chapter 2 Literature Review

2.1 Overview

The premise of this thesis, as established in the previous chapter is that there is an aspect of an individual's psychology which responds to and is augmented by contact with Academic Sustenance; allowing that persons' level of Academic Confidence to be boosted. As the thesis proposes a connection between this and Academic Sustenance, as it will be defined and articulated in this thesis, it is necessary to consider the way in which the relationship between Academic Confidence and Academic Sustenance might be identified and established.

This chapter discusses how Academic Sustenance is conceptualised, positioned and in addition, explains its connection to Academic Confidence. The nature of this relationship is central in order to understand how levels of OAC might indicate previous, positive, sustaining experiences signifying Academic Sustenance and accordingly, if those levels, once supplemented with further sustaining experiences in order to increase subsequent Overall Academic Confidence (OAC) levels. Along with stamina and determination when faced with academic challenges, Academic Sustenance is conceptualised as the source from which Academic Confidence and associated reserves of resilience is expressed; the basis of the relationship is an important consideration for this thesis.

As a reminder, the full expression of the term Academic Behavioural Confidence (ABC) is referred to as Academic Confidence throughout this thesis. The Academic Behavioural Confidence scale, used to conduct the quantitative phase of this study, is referred to as the ABC survey.

The interrelationship of these aspects is illustrated in the following model:

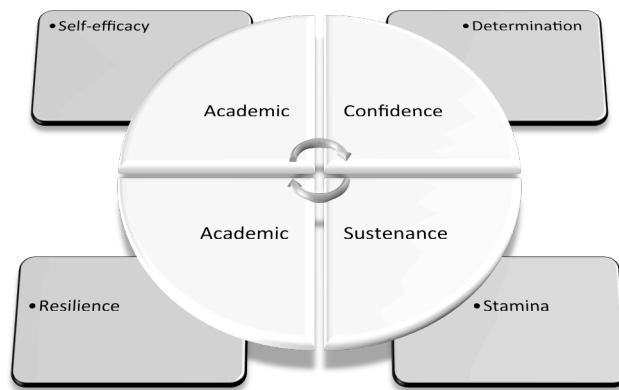


Figure 2.1 The components of Academic Sustenance

As indicated by the model in Figure 2.1, the facets of Academic Sustenance and Academic Behavioural Confidence (ABC) might be affected by an individual’s self-efficacy, determination, resilience and stamina. The particular effects of each and how their relationship to Academic Sustenance adjusts depending on the way Academic Sustenance is available, will be explored in this chapter.

Central to the consideration of the literature supporting this thesis is the shifting research focus around student confidence. A literature search of this term suggests that over the last ten years, research focus has altered from exploring the individual learner and their abilities towards examining learning approaches and their success in meeting educational directives, driven by specific learning dictates and productivity requirements from Higher Education providers (see Sinapuelas and Stacy (2015), Baeten *et al.* (2013), Green (2015) and Donche *et al.* (2013). Brooks and Everett (2008, pg. 49) point out that motivation in itself is not straightforward, claiming:

“a bifurcated notion of motivation may oversimplify the complexities of work relative to student’s internal drive and impetus toward action”.

As stated in the previous chapter, this thesis is concerned with ‘why’ students might have greater Academic Confidence and as such, takes the position that another factor other than motivation or self-efficacy, could be affecting an individual’s drive for

achieving academic success. This factor is the basis for their academic resolve, which affects their level of Academic Confidence when faced with challenges. Such confidence is a marker for Academic Sustenance and the subsequent level of ABC suggests sustenance experiences.

This does not discount research into how students learn and their subsequent actions with regard to their study, nor does this thesis overlook the continuing research into learning approaches spearheaded by Entwistle's seminal work on learning strategies and styles in the late 1980's and developed more recently by Marambe *et al.* (2012), Loyens *et al.* (2013), Alauddin and Ashman (2014) and Heinstrom, (2014), establishing the foundation for understanding specific learning stratagems undertaken by students relative to their studies. The importance of such research is undeniable and continues to furnish greater insight into learning approaches, yet it is outside the scope of this thesis. This study, as outlined in Chapter 1, is concerned with the 'why' of the way students might approach their academic studies, not the 'how'. Instead, this study is considering the precursors to understanding learning, by considering the way past incidents and their resonance affect how individuals' realise, determine and establish behaviours, which subsequently impact that individual's actions academically in the near and distant future.

As proposed in Chapter 1, this review is focused on the psychological literature of confidence as a framework for the study. With this in mind, this literature review is framed in the following way. Firstly the basis for research into Academic Confidence is delineated and contextualised within the literature of self-theories. The exploration scope is expansive, stretching back over more than six decades; however, the identification of Academic Confidence as a particular aspect of self was initially proposed by Albert Bandura in the 1980's as part of the conceptualisation of social cognition and self-efficacy theorems (Bandura, 1986). As stated earlier, the bulk of pre-emptive research into motivation and confidence took place in the late 1980's and continued to the early 2000's. Recent attention has been given to investigating current trends in student psychology (see Sander *et al.* (2011), Stankov *et al.* (2012)

Morony *et al.* (2013) and Marginson (2013, 2015); it is noted that much of the ongoing research looking at student efficacy and ability builds on this body of work begun in the 1990's. As such, any understanding of the basis of Academic Confidence and the corresponding influence of Academic Sustenance must consider its geneses and draw from this fertile, twenty-year period of confidence-based research.

A second consideration is that the experiences supporting the development of Academic Sustenance might be slightly different in other countries, which is why this thesis is probing the experiences and narrative stories of students in the sample. In a study of three cultures, the United States, United Kingdom and Russia, definite differences were noted in the way individuals thought about learning (see Elliott and Hufton (2003) and Hufton, Elliott and Illushin (2002). As such, the relevance of different academic backgrounds and experiences must be contemplated as a plausible contributor to Sustenance experiences. This is discussed further in section 2.18.1 of this chapter.

Also key to this study and literature review is that even thirty years ago, Academic Confidence was already beginning to be recognised as an aspect of self-effective, intrinsic and extrinsic motivational forces and as such could be considered as a way to understand a less-researched aspect of the forces affecting student behaviours and thus assist in the development of more effective teaching environments. The genesis of understanding Academic Confidence therefore, lies with social cognitive theory and self-efficacy constructs.

Along with self-efficacy, the review considers the literature on motivation and confidence, drawing a link to Academic Confidence. It then examines the relationship between self-esteem and self-concept and discusses the connection between academic competence and Academic Confidence. An essential distinction between the two concepts is made and influences such as prior academic experiences and gender effects are considered as well as parental encouragement and cultural backgrounds.

The chapter concludes with a summation of the key ideas, along with their relationship and implications regarding Academic Confidence. These are considered

against the outline of the Academic Sustenance conceptualisation, that is, in the type of experiences that might influence student perceptions of ability in different ways.

2.1.1 Students: older and younger: a distinction in the literature

As the review considers the influences of past academic experiences on levels of Academic Confidence of undergraduate students, examining the types of experiences likely to occur during secondary schooling, which underpin later experiences is both relevant and essential.

The review is primarily concerned with research dealing with undergraduate students and their experiences at university, but also considers findings from assessment studies such as Australia's Australian Curriculum and Assessment Reporting Authority (ACARA), the National Assessment Program: Literacy and Numeracy (NAPLAN) as well as international assessment studies such as Europe's Organisation for Economic Cooperation and Development's (OECD) Program for International Student Assessment (PISA), Trends in International Science and Mathematics Studies (TIMSS) and the USA's National Assessment of Educational Progress (NAEP), all of which utilise data drawn from younger learners. Correspondingly, it is noted that for example, the work of Dweck, Leggett, Wigfield and Pintrich is based on adolescent learners. In order to clarify the distinction between young adult learners and adolescent learners, the following terms will be used to denote the difference. The term 'pupil' or 'pupils' in this chapter indicate younger people in secondary schools whilst the term 'student' or 'students' denotes adult learners, aged 18 and older.

2.2 Academic Confidence: meaning and context

The literature positioning this study is within the domain of social cognitive theory, first conceptualised by Bandura in the late 1980's. Bandura claimed social cognition occurred when a sense of personal efficacy or ability corresponded to propositional beliefs (1997, pg. 94). Beliefs imply a degree of influence employed by the individual, suggesting the manifestation of a series of behaviours in order to

determine a favourable outcome. Bandura termed these 'intentional behaviours' and argued that assessing a persons' likelihood for success was possible through examining their perseverance, resilience and accomplishments.

Thus the core of the intent can be noted through this conceptualisation; that to obtain greater awareness about students' Academic Confidence allows more to be understood when considering the actions of the individual in determining intentional behaviours. As social cognition recognises the importance of the individual in making choices about the type of behaviour or skills subsequently adopted, a logical extrapolation is to extend the questions about choices into academic issues. Do students make choices about their behaviour as the result of previous ones or are other factors influencing and prompting those choices? As a result, this study is situated neatly within this background as it is concerned with the 'why' of the nature of influence, that is, with the individual's ability to exert control over their actions.

Academic Confidence therefore, is contained within the self-effective sphere of control, as it is the action of an individual's perception of ability to undertake and succeed at academic tasks, which differentiates it from self-efficacy per se. Sander and Sanders note that the conceptualisation of Academic Confidence is:

"... how students differ in the extent to which they have a strong belief, firm trust, or sure expectation of how they will respond to the demands of studying at university." (Sander and Sanders, 2009, pg. 19)

As such, the development of a deeper understanding of Academic Confidence is important because it both encompasses the concept of the self-effective individual taking conscious and thoughtful note of their actions in order to attain pre-determined outcomes and also allows for the action of the self in taking responsibility for such outcomes. Academic Confidence therefore, spans these two paradigms and in doing so, is able to do two things. The first is to acknowledge how students reflect on their perceived academic abilities and make predictions on outcomes such as workload and time management. Secondly and perhaps more significantly, it allows both educators

and researchers to gain a clearer insight in to the manner in which students rate their ability in academic community settings, for example: being able to respond assuredly in high anxiety surroundings such as answering questions posed by lecturers in a crowded lecture theatre or engaging in academic discussions with a group of classmates during tutorials.

Claxton and Martin comment on these qualities of academic behavioural confidence; Claxton uses a broader definition, terming it “academic resilience” and defines it thus:

“...academic resilience...is the mental agility and emotional stability needed to develop learning fitness and readiness” (2002, p. 14).

Martin acknowledges this element of persistence in the face of adversity; his term for this ability is academic “buoyancy” which is defined as:

“...a student’s ability to successfully deal with academic setbacks and challenges that are typical of the ordinary course of school life” (2014, p. 87).

Martin (2013) points out the distinction between the two concepts, arguing that buoyancy is a part of the everyday, the setbacks, pressures and challenges under which a person is expected to perform. In this, Claxton’s use of academic resilience is more in line with Martin’s definition as it is directed more at the ability to recover from momentary setbacks, such as a poor grade or a stretch of reduced performance rather than sustained adversity.

Resilience is often used to describe those who are adversely affected by chronic failure or acute under-achievement (see Martin *et al.* (2015) and Collie, Martin and Malmberg (2015). An academically confident person could, by that definition, be buoyant but not necessarily resilient. More current definitions draw on this earlier research, such as Green, Liem and Martin *et al.* (2012) and Malmberg *et al.* (2013),

who also consider task difficulty and perception as aspects of how students deal with academic challenges.

2.3 The influence of motivational theories: context and origins

The discussion thus far has identified the context within which Academic Sustenance and Academic Confidence are situated; motivational theory is also part of this narrative. It is within this framework that self-theories are situated thus it is equally appropriate to examine the relationship between Academic Confidence and motivation, as motivation is an important driver for an individual's pursuit of success. Green *et al.* (2012, pg. 1111) identifies three distinct areas of investigation, saying:

"...academic challenges such as diminished motivation, poor self-perception and disengagement... are areas where students typically experience significant physical, psychological and social changes".

This is relevant to Academic Sustenance as it is likely the percentage of positive experiences had by the individual, which determines both individual and social endeavour; both of which may underpin this study's initial ABC survey results from commencing students. Motivational effects will be discussed further in this chapter, however what is important to this discussion is to understand that motivation and confidence have a symbiotic relationship; motivation spurs belief in ability, belief in ability builds confidence. As Ryan and Deci (2013) point out in their explanation of intrinsic motivation:

"...accomplishment is an intrinsic motivation and people will often be eagerly engaged in activities because they enjoy the process of accomplishing some task or goal" (2013, pg. 117).

If the generation and continuance of positive experiences is a factor influencing students' application of determination in academic circumstances, then probing the circumstances where and why students may fail to thrive academically, is both significant and constructive for insight into this aspect of the academic self.

2.4 Academic Confidence and its connection to Academic Competence

As outlined in Chapter 1, this thesis explores the notion that in capturing a different part of the psychology of the academic self, that is, an individual's own perception of their academic abilities viewed through positive, sustaining experiences conceptualised as Academic Sustenance, greater insight can be gained into the perceptions of anticipation of ability held by students. Such enquiry helps inform the way in which educational facilities can both enliven and add value to the individual, social and academic experiences of an increasingly diverse student population.

As indicated in Chapter 1, this study originated whilst working with students in the Far East; the starting point was the proposition that there might be differences in how students perceive their chances of success and that their subsequent Academic Confidence might have some relationship with past academic experiences. This is a key idea because it is neither suggested nor implied that academic ability is a factor. Rather, it is that preliminary observations suggested that levels of Academic Confidence might be different for students due to other factors and that those factors might relate to an individual's academic background, previous academic experiences or possible cultural differences. The notion of another element additionally affecting Academic Confidence; conceptualised as Academic Sustenance, was also beginning to take shape, this will be discussed further in section 2.6 of this chapter.

As this study is exploring the relationship of Academic Sustenance and Academic Confidence and the effect it might have on levels of Academic Confidence, a secondary relationship should also be discussed. This is the connection between Academic Confidence and Academic Competence. This link requires some context.

Academic competence (AC) can be theorised according to Gyuris and Castell (2013), as another aspect of the motivation framework (see also Komarraju and Nadler (2013) and Burgoon, Meece and Granger (2012)). Drawing on Gettinger and Seibert's early construct of determined skills (2006, pg. 350), Academic Competence is considered an amalgam of knowledge, skills and abilities which assist students with

acquiring, organising, retaining and using information in ways which benefit their academic program.

Bandura (2012) identified this concept as central to the ability to predict behaviours: that is, the skills, abilities and knowledge individuals hold which indicate the likelihood they have in achieving both short and long term academic objectives. Short-term goals might be: meeting assignment deadlines, participating in discussions in class with teachers and peers; a long-term goal would ultimately be to graduate with a qualification in their chosen discipline.

Competence therefore, is relative to the perception held by an individual regarding their abilities in particular kinds of activities. As this study is focusing on academic aspects of the individual, a more explicit definition of Academic Competence should be specified. A clear understanding of AC is important because it grants valuable insights into the psychological makeup of the student. For example, persistence in goal-related activities such as maintaining a high grade point average, or ensuring all study-based activities like essay writing and preparation are completed in a timely manner, could therefore predict high levels of perception of academic ability, whereas lower perceptions could indicate lack of persistence.

2.5 Motivation, confidence and Academic Confidence

As presented in section 2.3, motivational theory outlines two key areas – those experiences which influence individual motivations in order to achieve personal goals and those which influence social motivation, which assist in the attainment of goals which serve an outward expression of success: a well paid job, challenging career, comfortable home and enjoyable leisure pastimes.

No current discussion of motivation in educational terms could be entered into without acknowledging the genesis of the concept. The forefathers' of motivation theory, Maslow and McClelland are the cornerstones of current dialogues in motivation, confidence and human agency. Although less favoured now in educational discussions at time of writing, the power of both theories has far reaching influence

and there would be less understanding of why people do the things they do without due acknowledgment of both concepts.

Maslow's theory of a "Hierarchy of Needs", developed in the 1950's, explained motivation in a structured way. The theory, typically exhibited as a pyramid, with each level of need diminishing towards the pyramid's peak, postulated five basic needs: physiological or metabolic need for food and water, clean air and shelter; the need for safety, such as job or financial security; the need for belongingness, in the form of recognition by peers or in community groups; the need for respect and esteem, in being valued and appreciated by others and lastly, at the top of the hierarchy, the need for self-actualization, the desire to accomplish everything that one can; was developed as a way of understanding the deep drivers of human behaviour. As such, Maslow proposed that as each level of need was fulfilled, the supervening need became a new primary motivator. In higher education settings, clearly lower level needs are met for the majority of students; as a result, higher level needs are in an on-going process of being addressed as students come to terms with community acceptance, peer recognition and value of academic effort as well as the overarching desire to achieve their self-actualisation objectives.

Maslow's hierarchical theory has its critics (see Wahba and Bridwell, (1976), Kenrick *et al.* (2010) and Kenrick (2010)), along with Maslow himself to some extent; although still taught in numerous university business curriculums worldwide, is no longer widely adopted in educational discourse. However, its place as the forerunner to current discussions of motivational theories cannot be overlooked. Maslow's research into human needs was the precursor for intention theories such as Vroom's Expectancy theory, Zimmerman's Self-Regulated Learning theory, and Locke's theory of Goal Setting. These seminal concepts, albeit dated under current perceptions, nonetheless were key contributors to on-going research such as Dweck's work investigating student optimism (2006, 2007, 2012) and Martin's research into Academic Buoyancy (2009, 2011 and 2013)

McClelland's "Theory of Achievement Motivation" (McClelland, 1961), another product of the prolific human behaviourist boom of the 1960's had a different approach to Maslow. McClelland identified three non-hierarchical needs: the need for achievement, for affiliation, and for power. At least one of these needs is frequently the principal driver in most people and thus compels their behaviours in different situations; some are "achievers" and function best in situations where they have autonomy and authority over their actions; some need socialization and thrive in group setting, and others are drawn toward positions where their particular power mastery is demonstrated by overt displays of prestige and continuous updating of personal status.

Thus far the literature reviewed has established the scaffolding linking confidence, self-theory and competence. Both Maslow and McClelland's theories determine the basis for interpretation of the framework of Academic Confidence. It should also be noted that for the literature concerning motivational research, the focus is squarely on the 'why' and 'how' students approach their studies with a view to achieving success. Academic motivation therefore focuses on other aspects such as goals, expectancies and social behaviour in order to understand the way in which students make decisions and structure their behaviour in order to meet academic challenges.

2.6 Academic Confidence and Self-theories: establishing the link to Academic Sustenance

In order to enhance and clarify the link between Academic Confidence and Academic Sustenance it is necessary to understand how student attitudes might be influenced by particular events, and how an action-orientated pathway might be created from that baseline. To this end, the discussion considers self-theories and their influences on personality and ability. This allows a clearer picture to form of how and when students are affected by their perceptions of their ability. Self-theories therefore establish the building blocks of these perceptions. With this in mind, possible ideas as to the manner in which Academic Sustenance might aid in the development of

determination and resilience whilst providing individuals with more robust levels of Academic Confidence, are discussed in the following section.

2.6.1 Core theoretical ideas of the self

Research into the academic self and those factors that may influence either directly or indirectly the path chosen by an individual provide vital clues into why some students flourish during the demands of their studies and others falter. Stankov *et al.* (2014, pg. 158) points out that contemporary work into confidence and its affects on ability, personality and behaviour have been used to predict academic outcomes; which in turn impact confidence and ability. Confidence has been linked to decision-making and metacognition, which as Stankov *et al.* (2014) suggests, has an overlap with self-efficacy judgments. As an example of such overlaps, Sander's research into Academic Confidence found that students enrolled in high demand programs such as medicine, reported higher levels of ABC than of classmates enrolled in lesser demand courses such as psychology (2009, pg. 35) even though grade averages for program admittance were similar.

What is suggested then is that some other factor may be causing additional influence of the way in which student's anticipate or predict their abilities. Academic Confidence is an under-researched area of the psychology of the academic self (see Hlalele, 2012); however, central to this thesis is the tenet that the existence of an additional factor influencing Academic Confidence, that of Academic Sustenance, provides an explanation for why some students manage their studies more successfully than others.

2.6.2 Self-efficacy and Academic Sustenance

Self-efficacy is also one of the cornerstones of extant research into the academic self; the following section details the key ideas and contexts of this perception of the individual. The origins of self-efficacy arose in the 1940's and theorised that an important cause of a person's success or failure had to do with what that person believed about him or herself. This innate belief that one is capable of

actions that will result in success is known as self-efficacy. Bong *et al.* (2014) provides an explanation of the distinction between self-concept and self-efficacy, suggesting that self-efficacy is concerned with successful accomplishment of particular tasks, whereas self-concept considers the likelihood of success conceptually. This is the difference between students believing in their ability to understand complex political ideas (a self-concept belief) and to be able to write an essay explaining and articulating those ideas under exam pressure, based on previous successful experiences (a self-efficacy belief).

Self-efficacy therefore, represents individuals' expectations and convictions of what they can accomplish in given situations and performing similar tasks (Bong, 2014 pg. 64). Academic self-efficacy has been the premise of a number of studies examining academic achievement and prediction of performance (see Alauddin and Ashman (2014), Bryer, Peterson-Graziose and Nikolaidou (2015), Çelik (2015) and Fry, Emerson and Skyrme (2013) focusing on performance goals and strategies. Bandura, whose seminal work in the 1980's underpins much of the understanding of self-efficacy, established the theory based on the idea of people learning through observation and thereby modelling future behaviours on those observations. Through the establishment of optimistic and positive goals sanctioning the attainment of desired outcomes, Bandura speculated that the self-regulatory and self-reflective actions chosen in order to meet such goals indicated a certain measure of control. On-going research by Matoti (2012), Hanley *et al.* (2015), and Collie *et al.* (2015) continues to explore these parameters, yet there still remain gaps in understanding why some students lack such self-reflective abilities. Some other influence must be in play.

The notion that Academic Sustenance, as discussed in Chapter 1, has a discernable effect on Academic Confidence is underpinned by two things: firstly, it proposes a justification for different levels of Academic Confidence as students who are exposed to its influence appear to develop higher levels of Academic Confidence whereas students lacking Academic Sustenance appear to have lower levels of Academic Confidence. Results of the data analysis presented in Chapter 5, presents a snapshot of student belief in their ability at commencement of their academic studies,

which is brought into clearer focus by the discussion in Chapter 6 as to likely explanations for those particular perceptions of ability.

What is suggested at this point is the overall effect of positive academic influences on students. By encouraging an environment of positivity, a best-case scenario is that students' should ultimately be engaged, self-directed and motivated to achieve their best in a variety of academic endeavours. Despite these intentions, it is not always the case and as Marks points out, preconceived ideas about education can be a powerful influence on students and their aspirational ideas concerning their abilities (Marks, 2013, pg. 1637). The discussion in Section 2.18, which considers the nature of positive and negative effects of prior experience and parental influences, examines the effects of such impacts and how this affects Academic Confidence.

2.7 Educational Experiences and Academic Sustenance

One of the primary influences of life expectations is dependent on choices and consequently the experiences resulting from those choices. One such choice is the decision to undertake higher education in order to achieve certain goals; in that education leads to greater life opportunities in higher paid work, a superior standard of living and the likelihood of achieving recognition by one's peers for one's contributions to the community. Fry, Emerson and Skyrme (2013) maintain that positive academic experiences are often overlooked if negative ones occur more frequently. Academic and school experiences contextualise success to such an extent that occurrences, positive or otherwise will resonate in an individual's self-concepts for many years, as Bachman, Wadsworth, O'Malley, and Schulenberg (2013) suggest. Such experiences often exemplify key evolutionary moments in an individual's life; for example, from an early age, a child soon learns that consequences result from particular actions, such as touching a hot surface and burning one's hand. So too, do pupils and students learn about the effects resulting from particular types of academic actions.

Throughout ones' educational life span, learners of all ages recognise that by undertaking or avoiding certain activities, consequences can be immediate and

devastating. In making ill-judged choices, for example, such as choosing to engage in leisure activities instead of revising for a test or preparing a paper for assessment, the outcome can be psychologically destructive to the individual if handled poorly by external parties. Such events can be detrimental in both short and long term (see Rezael (2012), Ewing-Cooper and Parker, (2013), Verdi, Weyandt and Zavras (2014) and Stankov (2010)) and that care needs to be taken in providing a suitable supportive environment. If academic actions are left unchecked, the long-term impact can be insidious.

It is the act of learning through one's mistakes, observing others and resolving to undertake a different approach with a different outcome for future occurrences, which supports the realisation of a key stage of development of the rational process. For example, students who are able to absorb the tenets of preferred behaviours such as establishing revision schedules for examinations or completing all the assigned course work reading, will be able to transfer those practices into other aspects of their future, professional lives.

Developing competencies as part of the learning process is an essential derivative of the explorative nature of gaining information and turning it into knowledge. This action is fundamental to the mind of those attempting to rationalise their actions in relation to their environment. In this way, competence, relative to academic studies can be built by persistent connections with the external environment. Determining, exploring and managing situations as they arise assist the individual in the construction of their beliefs in and of their abilities. By focusing on the psychological effects of diverse experiences and how people learn, it is possible to gain a deeper understanding of how and why people react the way they do when faced with learning choices.

Discussed earlier in this chapter, the influence of personal efficacy as Albert Bandura suggests, shapes human behaviour both positively and negatively. Confidence, according to Bandura (2012), is that innate belief in ones' capability to be successful in ones' actions and outcomes and affects almost everything anybody does.

Such convictions encompass how one thinks, the sensations felt, how motivation affects them and their subsequent behaviour. Consequently, one aim of this thesis is to examine if these anecdotal experiences represent a real phenomenon: are there distinguishable differences between students, either quantitatively or qualitatively, in levels of Academic Confidence due to the influence of Academic Sustenance?

A second aim of this study is to examine student's own reports about Academic Confidence and past academic experiences. In particular, are there differences in the way students report their experiences about their confidence and how do those experience support or refute the influence of Academic Sustenance? These will be examined in Chapter 5 as part of the thematic analysis of interview material.

2.8 Academic Sustenance and Self-concept: Origins and theories

Academic self-concept is one of the core components of motivation research. Bong, Cho, Ahn and Kim (2012) define the concept of self as representative of perception of the self in particular domains of function.

It is this function, of making assessments of ability based on experiences, environmental reinforcement and the opinions of significant others, which allows the formation of a particular view of self. In academic terms, there is some overlap between academic self-concept and academic self-efficacy. Federici and Skaalvik (2014) point out that both constructs are multi-dimensional and encompass other domains so should not be used to solely explain behaviour as a singularity.

The key antecedents of self-concept can be characterised into five aspects; Frames of reference, which are the standards against which an individual judges his or her particular mannerisms and achievements; Causal attributes, defined as those factors by which both successful and unsuccessful events are considered; Reflected appraisals from significant others, which is the way people view themselves in the light of other people's opinions; and Mastery experiences, which are past experiences in particular areas which have encouraged a particular image to be formed of a person's

actual abilities. These aspects make up what Bong and Skaalvik term: “a psychological centrality” (2003, pg. 9); the self-assessed view held by an individual as to their overall demeanour. For example, people often summarise themselves in one word: “sporty” or “studious” or “arty” without considering that such a view is limiting.

Self-concepts therefore, are multi-dimensional and do not do justice by defining a person’s behaviour in such a singular approach. That is why it is important to consider how damaging previous experiences could be to students who might have been defined inappropriately either by themselves or labelled by others, based on one-dimensional information. For this reason, the literature review now looks at the concepts and definitions of self-esteem and considers the influences of this aspect of the self on Academic Confidence.

2.9 Self-esteem – definition and background

The middle of the 20th century was undoubtedly a petri dish of propositions and speculations about the self. Three key theories emerged in the fifteen-year period of 1950 - 1965, which still underscore educational research in current times. Along with Maslow’s (1954) theory of motivational needs and McClelland’s (1963) achievement theory, another theory was emerging from the scrutiny of agency. Rosenberg’s (1965) theory of self-esteem was also developed in this era as a distinct, psychological hypothesis and was defined as a person’s general perception of self-worth, encompassing aspects of material, social and spiritual beliefs. This triumvirate of views of a person’s worth became more prominent in the 1970’s; indeed the phenomenist (see Schulting, 2010 for discussion of Kant’s constructionist ideas of being) and behaviourist approaches (for example B.F. Skinner’s body of work from 2014, 2011, and 1990) to understanding human agency, remain a staple of the literature of confidence, motivation and human agency.

In the conceptual literature of motivation and academic research, the self-esteem literature has given rise to concepts such as Weiner’s theory of emotional and motivational entailments of academic success (Weiner, 2012) and Graham and Folkes’ (2014) theory of Attribution, which considers ability, luck, effort, help and hindrance to

be aspects of self-esteem (see also Mitchell and Green (2015) and Graham and Taylor, (2016)). Those with positive self-esteem consider ability, luck and effort to have stronger correlations to outcome than those with more negative levels. The latter group focus on the lack of help and the continual examples of hindrance as underwriting lack of success or ability.

Attribution theory suggests that individuals with low self-efficacy look for reasons to explain their lack of progress whereas individuals with high self-efficacy attest their progress to mastery of tasks and determination to overcome challenges e.g. Weiner (2012) and Razael (2012). This theory helps to explain some of the reasons students with different levels of Academic Confidence might look to external causes of their inability to attain a particular outcome.

It also admits the concept of Academic Sustainance as a persuasive explanation of why some students, when faced with similar academic challenges and obstacles are able to draw on a core of strength that enables them to persevere in their academic undertakings. In contrast, those students with less positive and sustaining experiences appear to lack this core and instead, look to environmental or physical factors, which preclude or restrict the likelihood of success. This aspect of the impact of Academic Sustainance is considered in Chapter 6 and corroborative data is presented in support of this claim.

The model proposed in the beginning of this chapter indicated aspects of an individual's attitude, which affect Academic Sustainance: the level of self-efficacy and the balance between resilience, determination and stamina. These elements suggest a relationship between the level of an individuals' Academic Confidence, and Academic Sustainance in the form of positive, sustaining experiences.

Theorising the existence of Academic Sustainance and its' influences on the ability of students so as to persevere under challenging academic conditions, is one explanation of the way in which Academic Confidence levels might signpost the students who might benefit from intervention strategies. In order to assist with creating a positive academic experience for commencing students with increasingly

diverse academic backgrounds, establishing a level of Academic Confidence and monitoring progress at regular intervals would encourage and reassure students that their particular educational needs were considered with equal gravity to their practical academic undertakings.

2.10 Academic Sustenance: the case thus far

The literature reviewed up until now shows strong indications of the value of a positivist approach to encouraging and developing Academic Confidence. In cultivating a positive growth mind set as Good, Rattan and Dweck (2012) suggest, the ability to improve and enhance existing abilities is acknowledged. In doing so, opportunities for personal development are no longer constrained by negative images. Education providers should be aware that some students might need careful cultivation if they are to flourish in their new environments and demolish pre-existing views of themselves as less than academically accomplished. For this reason, Claxton's work on academic resilience, Martin and Marsh's research into academic courage and buoyancy, encompassing how self-concept, self-efficacy and self-esteem suggest that Academic Confidence is a fundamental aspect of the perception a student has of their intention to deal with adversity and challenge.

In exploring this notion, that levels of Academic Confidence can shift as both positive and negative experiences impact a student's perception of ability, it is valuable to consider how performance can impact overall confidence. The next section considers the literature of academic performance in a positivist context, in order to more precisely position the applicability of Academic Sustenance and Academic Confidence.

2.11 Academic Performance and Academic Confidence

On-going research into possible links between environment and achievement carried out by Jordan, Parker and Li *et al.* (2015) and Jenkins and Demaray (2015) demonstrate a consistent association between student achievement and environment. An exploration of the factors perceived by students commencing studies as well as

their perceptions of their own ability to succeed, (see Claxton 2002, Mahon, Crowley and Strain, 2012 and Falkenberg and Barbetta, 2013) allows deeper insight into what schools might achieve by enhancing their efforts in emphasizing success and academic optimism with commencing students.

These gel with the findings by Smith and Hoy (2007) who suggest that academic optimism can be characterised by several factors including those of trust by school faculty and a sense of collective efficacy. According to Coleman *et al.* (1966) early investigations into the characteristics of high achieving schools, even in the late 1960's, the question of academic environment on achievement had been mooted as a component in the exploration into characteristics affecting student achievement.

Coleman's early findings were surprising, suggesting family background might be an overriding factor and that resilience and motivation play a strong role. However subsequent studies (see Marks (2013) and Smith and Hoy (2007)) have indicated that whilst Academic Confidence may have some influence relative to previous experience including family background, it is the individual's own perseverance which directly affects their ultimate success.

Martin, drawing on earlier research by Pintrich (2003) points out that previous experiences, such as those modelled by family background and expectations might be affected by new overlays based on goal orientation, and self-regulation developed as mastery of experience occurs (2009, p. 797)

Martin's research into academic performance suggests motivation may be linked to performance in a way previously unconsidered. He suggests that motivation and persistence may have deeper psychological links; these may influence the likelihood of an individual's ability to deal with academic challenges (2011, p. 145). Such academic 'courage' as he terms it shows powerful links to confidence; suggesting the two concepts to be more closely aligned than previously understood. This is not to say that Claxton's concept of academic resilience is a lesser theory; on the contrary, resilience and courage would seem to be dependent aspects of an overall positive approach to successful management of academic challenges.

Schunk and Zimmerman's (2012) research into motivation and performance begun in the early 1990's, suggests motivation is tied to judgment; an individual who assesses their ability to perform in a particular way to a particular standard is most likely to have levels of self-efficacy which predisposes them to high or low success rates in given situations. Such judgments therefore effect academic motivation in that they reinforce a perception. This ties in with Martin's (2013) findings on courage and control, suggesting that in order to boost levels of confidence, fundamental shifts in perception and influences are necessary.

As such, it is more evident that the influence of particular factors affecting Academic Confidence can be a critical consideration in achieving a positive and supportive academic environment.

2.12 Perception of ability and Academic Sustainance

To understand more fully the anticipation of ability held by students, additional consideration should be given to understanding motivation as a driving force of success. As previously discussed in this chapter, motivation is in itself a fundamental aspect of the concepts of achievement and competence. According to Elliot and Hufton (2003, pg. 52) two distinctions are made: the possibility of positive competence and the inverse, that of negative competence. The latter case of negative competence has had stronger research attention over the years and forms part of goal setting theory, discussed in this chapter in section 2.13. In essence, goal setting or orientation motivations are due to two considerations; one based on learning, the other on a performance impetus. Dweck explains the nature of this impetus, saying:

"... when people believe their basic qualities can be developed, failures still hurt, but...don't define them ". (2006, pg. 39)

Termining this concept "mindset", Dweck noted that if an individual is motivated towards a learning orientation, or 'growth' mindset, the emphasis is on learning for understanding, insight and skill development. If the orientation is towards performance, the individual is concerned about learning as a demonstration of ability,

the 'fixed' mindset. Each goal therefore is subject to behaviours supporting this motivational orientation, which Dweck and colleagues identified as adaptive or maladaptive behaviours, which were classified as mastery tendencies or helpless tendencies.

When an individual, as Dweck (2012, 2006) and colleagues (Paunesku, Walton, Romero, Smith, Yeager, & Dweck, (2015), Elliot and Dweck (2013) explain, exhibit a more "helpless" response pattern to setbacks or adversity, rather than the "mastery" response pattern. Dweck (2012) acknowledges this response as an indicator of inhibited growth mindset, arguing that repeated episodes of lack of mastery serve to reinforce this pattern of response. Once such a pattern is established, it is difficult to convince a student that another avenue of achievement is possible, often resulting in reduced retention numbers of students at critical times of the academic year, such as end of first term and end of first year.

As such, being able to help students tap into Academic Sustenance through improving their Academic Confidence with positive experiences would appear to offer a solution to assist students with dealing with challenges and setbacks. Student retention has become a key consideration in contemporary universities, as program funding becomes more elusive yet conversely, demand intensifies. There is no doubt that the opportunities for an improved quality of life afforded through education remains high in the minds of upcoming generations of secondary school pupils and also for those looking for career changes or improved employment prospects.

By understanding the psychological needs of students and offering specifically supportive and targeted environments for development, it is more likely that potential higher education students will indeed discover the benefits of learning. In doing so, improved confidence, with corresponding rises in self-esteem and self-efficacy will benefit retention numbers, league table results and those universities whose academic culture provides such support. Indeed, further research into student retention possibilities (see Koen (2015), O'Keefe (2013), Barnes (2015) and Visser *et al.* (2015)) based on improving learning motivation orientation would therefore prove useful for

all education providers interested in slowing drop-out rates during academic programs.

2.13 Self-regulated learning: support for Academic Sustenance

The literature review has considered the notions of fixed and growth mindset as aspects of the construct of goal achievement. However, as a facet of the achievement motivation framework, both Elliot and Dweck (2013) and Schunk and Mullen (2012) point out that motivation and goal theory are significant aspects of that framework, along with perceptions of competence. Indeed, this aspect of Academic Sustenance is important as students lacking access to this aspect of academic development report a greater number of negative educational experiences. These findings and others are discussed in Chapter 6.

Elliot and Dweck (2013) theorized that achievement goals represented a person's purpose for engaging in behaviour in an achievement situation. Learning goals are also relevant in understanding the nature of motivation and achievement. However, as has been stated previously, the consideration of learning goals and subsequent methods for learning is outside the scope of this thesis, as in order to gain insight into understanding more about the way in which a student's levels of Academic Confidence and future academic behaviours might be modified, relative to the relationship between Academic Sustenance and Academic Confidence.

All research allowing sharper explanations or clarifications about the academic self is ultimately valuable. Such insights add richness to the task of academic developers in creating more meaningful experiences and outcomes for subject and curriculum improvement.

The significance of self-regulated learning and its links with Academic Sustenance is the level of determination demonstrated by individuals. Determination, as discussed in the beginning of this chapter, is considered one of the facets of the conceptualisation of Academic Sustenance and therefore is part of the rationalisation

of why being able to direct and manage ones' studies is critical to the discussion about motivation.

Intrinsic motivations allow for autonomous self-regulation. What this means is when an individual experiences the pleasure of undertaking an activity for his or her own interest and enjoyment, a willingness of behaviour is established. This willingness is reflected in higher levels of responsibility and greater control of decision-making, for example, making time for appropriate research, setting study schedules and ensuring assessment deadlines are met. From the development of this positive mind-set Dweck theorises that a powerful incentive to succeed is created (2006). Such incentives impact every aspect of an individual's life and continue on into the future, outside of academic pursuits.

Self-regulation is linked to academic self-efficacy in that it is the mastery of academic tasks, which reinforce beliefs held by a student about their ability. Such beliefs are subject to change; for example, if a student chooses to research and prepare a piece of assessment the night before the deadline, receiving a passing grade; the belief that this is a reasonable and acceptable approach is reinforced. This underscores the perception that "writing essays is easy". It is only when there is an adverse reaction, the same approach giving a different result, that this belief will be re-evaluated. If a different tactic is tried, where the student allows plenty of time to research, draft, edit and polish the assessment piece, resulting in a better outcome and this series of actions continues to be reinforced positively through successful grades, the behavioural belief will shift. The new conviction becomes: "essay writing is easy, if I allow enough time to study".

As discussed in section 2.12 of this chapter, Dweck and Leggett's work with secondary school pupils in examining the role of goal orientation theory showed interesting outcomes. To recap, Goal theory predicts that perceived competence moderates the relationship of performance goals but not of learning goals and behaviour (Dweck 2012).

Learning goal orientations and performance goal orientations have two additional classifications; adaptive, where the individual is able to modify and amend actions in order to allow for differences in the area of the outcome, and maladaptive, where the individual is less able to make such adjustments. For example, if instead of an examination at the end of term, assessment took the form of a major piece of submitted work, along with notes and supporting documentation to illustrate the conceptual development; inexperienced students with less defined goals would struggle to understand the necessity to create a timeline, or to document their work to the required standard. Maladaptive goal orientation in this case, would lead to a skewed sense of ability. It is when a shift in understanding occurs, such as recognising that allowing time to research, draft and polish assessment work has more favourable outcomes than not allowing time, that students are able to make progressive, psychological changes in behaviours. Such shifts may also be stimulated through positive experiences, as when a teacher or similar authority figure offers guidance or encouragement as a means of assisting with understanding an aspect of study or introducing a new way of considering an approach to studying.

To illustrate the power of beliefs, in another example, in an experimental study in which goals were manipulated, Elliott and Dweck (2013) determined that individuals under the learning goals condition displayed an adaptive pattern, regardless of the level of their perceived skill at performing the task. As Lichtinger and Kaplan point out (2015), patterns exhibited by individuals under performance goal conditions depended on the level of their perceived skill. Thus, perceived skill at performing the task moderated the relationship between performance goals and behaviour. This gels with Dweck's earlier "mindset" research, in that the apprehension surrounding a perception of failure can be as powerful as an actual failure to succeed and that this perception can grow to encompass other aspects of life, not just academic challenges (see Paunesku, Walton, Romero, Smith, Yeager and Dweck (2015), Good, Rattan and Dweck (2012), Dweck (2012)).

As discussed previously, self-efficacy beliefs are undermined by failure and through repeat actions: "I try hard but my assignments don't pass", thus the belief and

feeling of inadequacy persists and intensifies. A negative association can be quick to establish itself. This can be disheartening and demoralising for some students who sink into a morass of doubt as to their abilities. Continued adverse experiences may affect a student so as to establish a chain of association that resonates for many years. For this reason, it is important for universities to carefully consider how to assist under-performing students, so they are able to fully benefit from academic opportunities.

Academic research does not always incorporate or acknowledge the emotional aspect of whether or not academic tasks are enjoyable, interesting and satisfying. This is a crucial point as Academic Sustenance, with its links to Academic Confidence, bridges self-efficacy and self-conceptual beliefs. Sander and Sanders (2006, pg. 30) point out that:

“... self-efficacy is a mediating variable between individual’s inherent abilities, their learning styles and the opportunities afforded by the academic environment afforded by higher education”.

In considering the emotional aspect of Academic Sustenance, it is necessary to consider the deep impact of both positive and negative experiences, which affect a person’s beliefs in their abilities. This emotion-based quality of Academic Confidence, enhanced through Academic Sustenance, is central to offering an explanation as to why past experiences hold such power over the beliefs of individual, even many years after the original experience. This view of the emotional impact and influence on Academic Confidence will be discussed further in section 2.20 of this chapter.

2.14 Academic comparisons and their relationship and influence on Academic Confidence

Skaalvik and Skaalvik (2002, pg. 234) claim that students use both internal and external frames of reference as a way of making sense of their view of themselves when comparing academic performance with their classmates. This is an aspect of social comparison theory, conceptualised by Festinger in the 1950’s. Stankov *et al.*

(2014, pg. 10) maintains that academic competence and performance are precursors of confidence, so that understanding why a student has confidence in their abilities, allows greater insight into how they deal with adverse situations. Long-term studies such as the USA's National Assessment of Educational Progress (NAEP) and in Europe, the Program for International Student Assessment (PISA) highlight the efforts of investigations into how education providers are handling achievement and student expectations in order to track progress and improvements in literacy and numeracy in diverse educational settings. In doing so, a snapshot of how different countries are managing their current and future educational needs is collected and made available for comparison.

On-going research in to diverse curriculum design and teaching approaches (see Kaplan and Patrick 2016) as well as university quality comparisons (see Burdett and Crossman 2012) inform decisions about educational directions for tertiary and secondary providers. It may also be significant in the discussion of the relevance of prior academic backgrounds and their effect on levels of Academic Confidence and therefore, the likelihood of the opportunity to partake in sustenance-based experiences.

2.15 The relevance of prior academic backgrounds

Studies such as NAEP and PISA have highlighted the fact that adversities can stem from experiences in prior academic backgrounds. Extant literature has suggested that in a group of students with similar academic performance and experiences, their judgments of their Academic Confidence and academic self-efficacy when commencing higher education either as direct entry students or as re-entry students may vary; resulting in different levels of academic performance (see Lilley (2014) and Federici and Skaalvik (2014)). It would be appropriate to explore whether and to what extent background characteristics might be predictive of Academic Confidence.

Internationalization is often publicized within university environments as the bringing together of different approaches and cultures for the purpose of collaboration and cooperation between countries. Spencer-Oatley (2013) suggests

that universities are keen to encourage the development of different intellectual approaches and cultural sensitivity, along with “global graduates” who are able to move fluidly through the world and its challenges (2013, p. 245). Yet international students who are the embodiment of such collaborative undertakings are often negatively portrayed as exhibiting unpredictable levels of literacy and performance in their programs. Accompanying such portrayals is speculation that families have expended a great deal of financial effort underwriting the educational imperatives of such students. Criticism is directed at both background and ability, implying that international students are often below the academic standards required. One of the questions being asked in this study is whether different academic experiences affect students adversely; expanded research and purposeful sampling of international students could tease out additional themes to improve current knowledge as to how this body of students reports such experiences and subsequent effects on perceptions of ability. Chapter 5 will present the results of the data analysis exploring this query (amongst others) on a preliminary basis, given the extent of the sample’s international student distribution.

Much conjecture has been put forward in educational literature about the effect of disparities in socio-economic backgrounds. Initial inspection would seem to indicate that the socio-economic theory, which incorporates distal factors such as single parent families, ethnicity and economic wellbeing, has some basis in evidence as data shows that schools in wealthy, privileged areas perform better than schools in lower socio-economic areas. Rubie-Davies and Lee (2013) suggests that transitioning from different environments could be a cause of psychological conflict. Reddy (2012) drawing on Steltenpohl and Shipton’s original 1986 definition of student’s returning to higher education; Re-entry students, defined as those student who re-join higher education after an absence of some years, are particularly exposed to this feeling of conflict, as the dynamic of the family’s social and educational background can impact the student in different ways. Reddy (2012) reiterates Michie’s *et al.* (2001) initial research into conflicted perceptions of ability, further suggesting that conflict might also be due to past educational experiences. Re-entry students, who might retain

memories of a different teaching and education ethos than in current practice, may demonstrate more obvious levels of disparity in their approach to their studies than their direct entry classmates. This differentiation may result in a level of hesitancy and tentativeness that would not be present in a direct entry student with more recent educational experiences.

In an early study into socio-economic differences in academic ability entitled “Effectively Maintained Inequality” carried out by Lucas (2001) in the United States, focused on the likelihood of socially disadvantaged students capacity to achieve academic success. The study theorised that socioeconomic inequality and education remained stratified as students struggling to attain good grades would invariably fall away or transition out of the educational system. (2001, p. 1643). This was in contrast to the recent findings of a similar study carried out in Australia in 2013 by Gary Marks from the University of Melbourne who disputed that result, finding instead that such backgrounds had little to no effect. Instead, Marks found that the attitude and resolve of individuals determined their academic success; background and socio-economic standing had no observable effect on academic outcomes (2013, pg. 1645). This is a key issue at the heart of this thesis; that attitude and resolution can be signposts of the influence of Academic Sustenance and that indications of such effects can be observed through scrutinising students levels of Academic Confidence.

2.16 Standardised tests and academic performance

Data gathered by national reporting bodies such as the Australian Curriculum and Assessment Reporting Authority (ACARA) who since 2008 have collected literacy and numeracy data from primary school students through the National Assessment Program: Literacy and Numeracy (NAPLAN) shows some variations for example, in comparing different schools with different teaching approaches. Disparities in performance between private versus state schools (equivalent to public versus grammar or comprehensive schools in the UK) and even further variations between the individual states within Australia have been noted, as well as differences between gender and age. (see Daraganova, Edwards and Siphthorp, 2013).

Heated debate has surrounded NAPLAN testing since it began, as it does not take into account what Marks terms the “cognitive” ability of individual students, but looks instead, at overall school performance. Marks states: “Cognitive ability has a considerably stronger influence than socioeconomic background on educational outcomes in many different contexts” (2013, p. 1644). Marks’ recent study found that to the contrary, student ability had a much stronger impact than socioeconomic background. The study focused on the subject choices made by Year 12 students in Australia as they prepared to transition from high school to university. Marks’ findings indicated that based on their ability, students were more likely to persevere with subjects in which they were interested, which could lead to university, as opposed to what their backgrounds suggested. Marks found that: “For entry to university ... student ability has a much stronger impact than (socioeconomic) background. High and very high ability students from low socioeconomic backgrounds had a reasonable chance of university entry, even to elite courses” (2013, p. 1649).

In focusing on the performance of a school, popularly presented in “league table” format for public scrutiny; critics of NAPLAN such as the Organisation for Economic Cooperation and Development (OECD)’s Program for International Student Assessment (PISA) who assess competencies of approximately 510,000 15 -16 year old students in 65 countries and economies ([http://www.oecd.org/pisa/keyfindings/pisa-2012-results-volume-iii.](http://www.oecd.org/pisa/keyfindings/pisa-2012-results-volume-iii), accessed Jan 2014), argue that it gives a false sense of school performance and does not consider the diversity of the student body. For example, the OECD’s 2012 PISA Results in Focus No 5 paper (Chapter 3, p. 172) points out:

“socio-economic differences ... mostly reflect differences in performance”.

This is a substantial point as the PISA data draws on an extremely significant sample. For example, in comparing results between Australia and Asian students, Simon Marginson (2014) proposes that the 2012 PISA results for East Asia indicating increased performance in mathematics and science, is due not to the myth of:

“didactic pressure or rote learning... (but of) higher expectations”

Marginson (2014) further suggests that encouragement for stronger performance is gained through family support and focus on learning and development. This notion, that through appropriate and effective support from authority figures, in combination with sound supportive educational structures could be a tipping point for student perception of ability is an important one, which is further explored in Chapter 6.

The implication is then, that a critical aspect of any academic differences is likely to be a perception of ability. As the survey instrument chosen to collect the quantitative data looks specifically at academic tasks and situations faced by commencing students, one of the predictions for the findings of the study is that students with higher levels of Academic Confidence may have had more supportive and sustaining experiences in their academic lives, than those with lower levels.

2.17 Environmental factors

Hoy *et al.* (2006) working from this aspect of a link between school and individual performance, identified three interconnected constructs where schools had revealed high levels of accomplishment: Academic Emphasis, where an academic institution had a clear and defined aim to seek academic excellence amongst students; Collective Efficacy, where the institution actively believed both school and students could achieve pre-defined goals in a positive manner and lastly, Faculty Trust, the belief in the ability of faculty to cooperate and trust that both students and their parents would work toward achieving academic success in an open and reliable manner.

Hoy *et al.* (2006, p. 426-29) further suggested such a culture of positive efficacy influenced student ability and success. An educational philosophy based on incremental learning in combination with academic optimism, is likely to provide a more structurally supportive environment for learning. Places of learning and educators providing such environments are more likely, according to the 2012 PISA findings, to develop stronger engagement with studies and higher levels of social integration (2012, p. 145)

The literature reviewed thus far suggests that a learning approach grounded in incremental theory has greater merit taking a goal rather than performance based approach when encouraging student performance. Current research into academic optimism in combination with Martin and Marsh's concept of academic buoyancy, paired with Claxton's concept of resilience as an essential building block of successful learning, suggests that a confidence-based study might clarify whether a student's success can be predicted as a result of possessing such qualities and secondly, if programs focused on the development of such qualities could be embedded into current educational support programs, might greater numbers of academically confident and successful students be developed? (see Hsieh and Chen 2015 and also Wu 2015).

Current research has shown general agreement regarding the correlations between Academic Confidence and self-efficacy beliefs (see Çelik 2015 and Martin 2014). A degree of caution should be exercised as the majority of the studies discussed previously were carried out in the USA; such results could be predisposed toward western performance standards and statistics. Students studying in Australia are derived from demographically diverse locations and therefore are likely to have had non-equivalent modes of education. Further research investigating distinctions between different academic models and perceptions of student academic success would give a clearer picture of the differences between other scholastic models and those in place in contemporary Australian universities.

Another consideration for potential differences Academic Confidence is the influence of gender, which is considered in the following section of this chapter. Previous research (see Niederle and Vesterlund, 2011, Orr, Swafford, Harder and Hall 2014, Collier and Bear 2012) into confidence considered gender-based effects as interesting but non-significant. However, as Yau and Cheng (2012) and Kobayashi and Kerbo (2014) point out, gender effects continue to be notable.

2.18 Gender, Academic Sustenance and its connection to Academic Confidence

Rubie-Davis and Lee (2013) observe that gender disparities are shifting and as a result, more women are both arriving and returning to higher education. Due to this shift, new reflections and realisations are essential in order to explain the variations in results about how and why students are approaching and coping with the demands of their studies. In probing the nature of Academic Sustenance and its relationship to Academic Confidence, more explanation as to contributing influences is necessary.

Early research examining gender differences (see Blum 2005 and Malkin and Stake 2004) suggested that males had somewhat higher levels of self-esteem, which in turn suggests an over-reporting of capability or competence. For example in a study of the differences between degree attainment between men and women at Cambridge University (see Norland, 2002), female undergraduate respondents reported a noticeable difference between how men would discuss their academic abilities when compared to women. Norland's research found that men were more likely to predict positive outcomes such as high exam results than women and to demonstrate overtly self-confident behaviour vocally in groups. Norland (2002, pg. 77) commented:

"...women tended to apologise in advance for the quality of work whereas men would bluster their way through discussions with clever rhetoric but very little substance as support".

It was also noted that women disparaged their abilities more than their male classmates. This study typifies several gender stereotypes; as Norland herself points out, female undergraduates are often depicted as under-confident and over-conscientious in regard to the calibre of their work. Norland's research demonstrated that proportionately although a smaller number of women were accepted into the degree program at Cambridge, the majority of those went on to achieve firsts rather than seconds in their degrees (2002, pg. 78). When the data was extrapolated, the women were performing as well as their male counterparts, although in discussion

with those respondents, women downplayed their abilities, focusing on their difficulties rather than their successes. Sander and Sanders reported similar findings using the ABC scale in their 2006 study. Findings for this study are reported in Chapter 5 and show several noteworthy comparisons with both Norland's and Sander and Sanders' findings.

Women, as Croson and Gneezy suggest, have different social preferences and reactions to competition. Such reactions also impact on risk preferences, which Croson and Gneezy define as the intention to influence situations with either positive or negative emotional biases (2009, pg. 448).

Those reflections encompassed the differences that men and women hold about ability. Vernon suggests this might be due greater levels of social intelligence amongst women. Social intelligence is defined as: "the ability to successfully negotiate complex social relationships in their learning environments" (Vernon, 2014,). Wawra (2009, pg. 166) points out that Goleman's speculations on the value of social intelligence have a double component comprising social awareness and social facility. Social awareness can be considered to be the sense that a person has about others, while social facility is the knowledge one has about others based on empathy, understanding and concern. Wawra further speculates that individuals from high-context cultures such as East Asian countries like Japan, Korea, India and China, which rely on non-verbal communication, are more adept at empathetic behaviour and thereby more likely to be able to adjust more readily into a culture which requires careful observation and language assimilation as prerequisites for a level of comfort (2009, pg. 167).

Cuevas, Russell and Irving (2012) and Alfassi (2004, pg. 3) suggest that on a deeper level, women might better understand the motivational and affective factors in educational process. Pajares points out that self-efficacy beliefs are closely linked with academic self-regulation (2002, pg. 117) and as such, students who demonstrate strong regulatory abilities would consolidate and advance their belief in their ability to succeed at particular tasks.

In a 2007 Canadian study looking at differences in academic performance and socio-economic characteristics of male and female pupils, it was found in general, that female pupils performed better on standardized tests, had higher overall school marks, spent more time doing homework, were less likely to repeat a grade in school, had higher expectations placed upon them by their parents, and faced higher economic returns as a result of completion of a university degree (Frenette and Zeman, 2007, pg. 5). The finding of higher expectations by parents is of particular note and is discussed further in Chapters' 5 and 6 of this thesis.

The study referred to in the previous paragraph originated from an investigation into Canadian census data, which found that the percentage of male to female students enrolled in 2001 was 58% female and 42% male. This showed a decline in male students over the preceding years, from a level of 68% males in 1971. One of the findings was that parents, particularly mothers, were more likely to support and encourage their daughters' academic aspirations. This aspect of parental influence will be discussed further in section 2.19 as it too suggests the possibility of an emotional characteristic of Academic Confidence, indicating a closer relationship with Academic Sustenance.

Michie *et al.* (2001, pg. 456-7) adds additional support for this notion of organising for success, pointing out that amongst Re-entry students (defined as those who re-join tertiary education after an absence of some years) the desire to obtain or top-up academic qualifications is more closely linked to career and promotional prospects and therefore has more compelling imperatives for the individual. International students studying abroad are also compelled by circumstances to maximise their time. To gain one's degree in the allotted timeframe would benefit the individual, their family and ultimately their home country with the addition of the knowledge, skills and abilities afforded by the new qualification.

Women in particular are often juggling careers and families and the data in this study suggested that re-entry female students were particularly conscious of the increased demand on their time to accommodate additional academic study

requirements along with the day-to-day business of family life and in some cases, managing their work commitments. Michie and her colleagues (2001, pg. 457) also pointed out that the transitional nature of the re-entry student on returning to study is dynamic and complex, so the ability to prioritise and categorise are vital skills. There is no suggestion that men lack such skills, rather that women tended to recognise and harness these abilities more noticeably.

Stankov's discussion of students from Confucian Asia, defined as a geographic region with common cultural ties, amongst which include Hong Kong-China, South Korea, Singapore, Japan, Chinese Taipei and Macau-China. (2010, pg. 555-558) adds some weight to this notion, suggesting that the unique pressures incumbent on students from this background imply a particular quality of determination and perseverance. Stankov (2014, 2013) further suggests that high academic performance combined with a natural modesty of self-presentation might imply lower levels of self-concept.

Those students with such modesty of presentation may also have different levels of Academic Confidence. They may not be able to improve their perception of ability without recourse to an alternate source of determination. The existence of such a source which encourages effort and determination thereby increasing one's self-efficacy and improving levels of Academic Confidence, again offers a rationalisation for the conceptualisation of Academic Sustenance as a viable explanation for why some students are able to deal with academic obstacles and setbacks more freely than others.

2.18.1 A consideration of cultural background and academic performance

As introduced earlier in this chapter, in section 2.1, the emotional aspect of Academic Sustenance may have provenance in different academic experiences. Research carried out by Hufton, Elliott and Illushin (2002) and Elliott and Hufton (2003) comparing the UK, US and Russia found that studying was viewed differently when reflecting on the level of required effort, the authors observing that:

“... it is what was perceived as constituting effort and how all participants respond to its apparent presence or absence that differs” (2003, pg. 159).

For this reason, cultural background might have some initial effect on a student's level of Academic Confidence. The model illustrating the facets of Academic Sustenance, shown in Figure 2.1 of this chapter indicates that effort influences Academic Confidence. Elliott and Hufton (2003) suggest that self-behaviours and effort can be indicative of positive or otherwise beliefs as to ability and subsequent motivation. As a significant number of students from diverse cultures and academic backgrounds are now found throughout universities worldwide, it is reasonable to anticipate that different cultural backgrounds may engender alternative educational experiences and aspects of parental support. This suggests that some emotional experiences might be different, further suggesting different contributors to Academic Sustenance.

The PISA and NAPLAN results discussed earlier in this chapter highlighted several of the considerations regarding different pedagogical systems. Particularly notable are the results from “Confucian culture” countries; indeed, great interest from educators and researchers alike have been directed toward those countries' educational approaches in recent years. Some background at this point to explain the taxonomy is now offered.

In the 2004 Globe study of 62 countries, House *et al.* defined societal clusters as those countries with a similar world-view. The clusters broke into ten major regions, of which one is termed “Confucian Asia”. Confucian countries as mentioned previously, are defined as a geographic region with common cultural ties, amongst which include Hong Kong, South Korea, Singapore, Japan, Chinese Taipei and Macau. These countries appear to be performing particularly strongly in recent international testing programs, according to Stankov (2010).

Since 2003, the Program for International Student Assessment (PISA) testing results has indicated especially elevated and consistent levels of student performance

in reading literacy, mathematics and science from the cluster of Confucian countries. For example, the ten highest scoring countries in PISA 2006 assessments in Science were: Finland, Canada, Japan, New Zealand, Hong Kong, Taipei, Estonia, Australia, The Netherlands and Korea (Stankov, 2010, pg. 556). Similarly, the Trends in International Science and Mathematics Studies (TIMSS) 2007 results for 8th graders' Mathematics scores list the following order of participating countries: Chinese Taipei, Korea, Singapore, Hong Kong, Japan, Hungary, England, Russian Federation, the United States and Lithuania (Stankov, op cit.). However, reading literacy results indicated no Confucian Asian countries amongst the top performing countries.

Stankov speculated that despite the existence of the so called East Asian Learner paradox, (see Huang and Leung (2005) and Mok (2006)) where pedagogical practices emphasizing strategies of memorization and drill are more common, these results might be due instead to increased efforts made in studying (see Mok, 2006).

A study by Lee in 2009 found Confucian Asian learners scoring low on self-efficacy measures. Stankov suggests that Confucian Asian orientations are more collectivist in nature (2010, pg. 558) and students therefore might have a natural modesty in answering questions about beliefs in ability and effort.

Isiksal (2010, pg. 575) points out that as students arrive at university with different backgrounds, academic and secular experiences and achievements, little is known about their perceptions of their abilities and long-term outlook and indeed throughout the span of their university involvements. It is suggested those academic providers who take a greater interest in student's background and previous academic histories will have better opportunities to offer targeted advice and study strategies to students who might struggle to identify with a different academic culture. In doing so, it is likely that such sustaining experiences will foster improved levels of Academic Confidence, an outcome of benefit to both individual and academic provider.

2.19 Authority influences on Academic Confidence

At this point in the chapter, the influence of authority influences and role models in shaping confidence should be considered as the literature indicates the significant role such figures take in helping develop more flexible outlooks. Self-efficacy and motivation literature taxonomies clearly recognise the influence of academic role models and parents in cultivating resiliency, which as a facet of Academic Sustenance, correspondingly impacts Academic Confidence. As discussed previously, teachers taking a more proactive role in student interactions contribute to advances in student cognitive processes (Reason *et al.* (2006, pg. 155). For example, a study of Japanese parental control by Kobayashi and Kerbo (2014) revealed that daughters had lower tendencies of overall risk taking; the authors theorised that this might be related to different patterns of parental control.

Parental control has changed over the years, as Frenette and Zeman (2007) suggest, due to reshaping of family units from two parents to single parent units. Further research into the differences in single parent families into student motivation and aspirations would also produce useful findings into the way in which young learners identify and position their educational ambitions.

Jeynes (2007) suggests that parental involvement has a different level of impact on students in Western countries than from other parts of the world. The author defines such involvement as:

“...participation in the educational processes and experiences of their children” (2007, pg. 83).

Two significant studies into parental involvement, Mattingly, Prislín, McKenzie, Rodriguez, and Kayzar (2002) and Fan and Chen (2001) had divergent results. The Fan and Chen study was a meta-analysis and did determine positive influences on educational outcomes as the result of parental influences. Conversely, Mattingly *et al.*'s (2002) study found little to no effect of parental influence but was not a statistical examination of parental involvement measures.

Both studies looked at differing aspects of involvement and did not have similar components. Although these two studies had dissimilar results, it can be agreed that the specific effect of parental influences on both academic progress and outlook of their children is an under-researched area to date; more information on this area would throw further light onto the significance of contributory experiences and resulting effects on the academic self.

What is notable is the effect commented on by Reason *et al.* (2006) who speculated that availability and interaction correlated positively with student gains in academic engagement. Laird (2005, pg. 367) also noted that student self-esteem increased as their interactions with faculty and peers expanded. This is an important consideration for this thesis, as Academic Confidence develops through the auspices of self-esteem and self-efficacy beliefs. Those factors exerting a positive effect on perceptions of ability are therefore, significant contributors to sustaining experiences, which feed into Academic Confidence. This relationship is discussed in more detail in Chapter 6.

Frenette and Zeman's 2007 study found that socioeconomic factors in the form of single mothers with daughters were more likely to encourage, motivate and play an active role in supporting their child's scholastic ambitions. The study showed that in 2003, 38.8% of 19-year-old females had attended university compared to 25.7% of similarly aged males (2007, pg. 6). Frenette and Zeman further suggested this distinction was attributable to changing demographics in families, with many children having single parent families over the ensuing interval. The influence of educated mothers on the educational aspirations of their daughters may be the factor underscoring these Canadian findings (see Frenette and Zeman 2007, Statistics Canada for the full study results).

In related longitudinal studies carried out by Gottfried *et al.* (1994, 1998), the findings suggested intrinsic motivation played a mediating role in the home environment on both current and future academic performance. Another factor affecting intrinsic motivation in both studies was the level of autonomy parents gave

their children. In the construct of self-determination theory, by which both studies were conducted, autonomy refers to the desire to self-regulate behaviour (Garn et al. 2010, pg. 264). Positive autonomy therefore, creates a more favourable environment for interacting effectively with the environment, described by Deci and Ryan (2012) as 'creating competency', as well as the opportunity to feel a reciprocal relationship to others. With this combination of autonomy, competence and relatedness, the necessities for self-determination theory are met. Garn *et al.* further proposed that both teachers and parents could contribute positively to the creation of such an environment, being behaviour modellers of great influence on young learners (2010, pg. 265).

Significantly, if teachers, schools and parents were not operating co-operatively, mixed motivational messages are sent to younger learners. If parents criticised or questioned a teacher or school's intentions too harshly, Garn *et al.* pointed out the inherent danger of an amotivational establishment of behaviour (*op cit.* pg. 267). Amotivational behaviour occurs as Dweck (2006) suggests, when the individual cannot establish links between an action and its value. For example, if homework or class exercises are not sufficiently challenging, learners may be reluctant to participate in class or to complete homework, as they cannot see the advantage for themselves if the challenge is too slight.

Parents can support their children's academic talents and thereby stimulate a learning orientation motivation rather than a performance orientation approach if, they as Garn *et al.* (2010) pointed out, "scaffolded" their interests. Scaffolding as defined by Garn *et al.* consists of interactive instruction, alignment of interests and restructuring learning environments (2010, pg. 268).

What the literature has demonstrated thus far is the prominence of influential role models on the motivation and learning orientations of students of all years. It is not a difficult supposition to claim therefore that past experiences, attitudes and interactions with significant role models at critical junctions have a substantial influence on the attitudes and approaches to learning held by young

learners, which then transition into higher education. Research into academic self-concept during the shift from secondary into tertiary education known as the “Big Fish Little Pond Effect” (BFLPE); (see Marsh 1987 and Marsh and Hau, 2003) indicates the key importance of belief in one’s ability. The BFLPE is conceptualised by Marsh (1987, pg. 281) as:

“...when equally able students have lower self-perceived academic skills and lower academic self-concepts when they compare themselves with more able students, and higher self-perceived academic skills and academic self-concepts when they compare themselves with less able students”.

When students and pupils compare themselves alongside the performance of their peers, it is evident that associations and beliefs will be established and consolidated, the longer such comparisons take place. This is a central reason for the importance of ‘supportive autonomy’, as Frenette and Zeman (2007) term it, along with a robust sense of self-concept and academic self-esteem. As academic institutions require a certain level of academic performance to maintain their role as providers and to comply with legislation governing school performance, it is inevitable that a ranking system is used to classify student performance. It is suggested that such rankings should be handled carefully so as to help and support young academic minds, rather than establish a tier system suggestive of levels of inability. Such categorisation could be devastating if not handled correctly. This and other recommendations for practice will be discussed in Chapter 7.

Thus far, the literature presented has focused on the effect of various motivation orientations in supporting and enhancing academic development. At this point, the discussion considers the emotional impact of past experiences on academic self-efficacy and confidence.

2.20 The emotional effect of past experiences: the link between Academic Confidence and Academic Sustenance

As previously discussed in section 2.1 of this chapter, much of the academic self is formed during early years. Bong and Skaalvik (2003, pg. 2) point out that:

“...school-related experience makes up a major portion of children’s lives and shapes the early paths to important life outcomes”.

Bandura maintains that people in themselves are freely agents of change (1997, p. 213). As such, the beliefs held by individuals as to their capabilities to achieve are compelling reasons to renew themselves, socially, physically and in this case, academically. As society requires people with more analytical and complex reasoning skills to fill a variety of occupational roles and deal with the sophisticated demands of contemporary life, the demand for recognised academic achievement is mounting, as is the pressure to succeed.

To date, contemporary research has had limited focus on the impact of previous academic experiences and their possible effects on an individual’s Academic Confidence. Contained within the membrane of previous experiences is therefore, an under-reported element, that of the emotional impact of those experiences. Conceptualised in this thesis as Academic Sustenance, it is this premise, that through positive, sustaining experiences, the emotional element of Academic Confidence can be affected and that through a lack of Academic sustenance, an individual’s level of Academic Confidence both short and long term can be significantly affected.

As the discussion has shown, future choices in how ability is perceived, performance assessed and decisions made are influenced both directly and indirectly by the presence or lack of this aspect of past experiences. As the argument in ensuing chapters in this thesis will show, this emotional aspect of sustaining experiences ultimately affects an individual’s level of Academic Confidence in both directions. This claim will be supported by the findings from the qualitative material, where the

interviews probe these aspects of sustaining experiences and also by the quantitative results, which measure and classify levels of Academic Confidence.

The literature concerning academic motivation and the structure of self-esteem, self-efficacy and self-concept all establish that the ability to make reasoned and lucid decisions demands an accurate perception of ability. One of the central questions of this thesis is concerned with the idea that Academic Confidence can be significantly affected by the presence of an element based on past experiences, that element being Academic Sustenance. The literature review has identified aspects of student behaviour where the existence of this element offers a plausible rationalisation as to why students deal with their studies in different ways when confronted by setbacks or challenges.

Thus far, it is clear that preliminary research into Academic Confidence (see Sander, De La Fuente, Stevenson and Jones (2011), Matoti (2011), Hlalele and Alexander (2011) and Sander and Sanders (2009)) has identified that a level of Academic Confidence can be identified, measured and compared. What these studies have not done significantly is look at the emotional components of past experiences to perceive the connection to this data. This study explicitly does this by measuring levels of Academic Confidence and then talking to students about their confidence levels, in the context of their backgrounds, past experiences, and other moments of significance.

There are many pressures placed on students in contemporary academic environments. It is not that pressure is overt and overbearing. Sometimes it is more subtle and indirect. Academic pressures are often those of control; for example, young learners may not be particularly interested in studying history, but the National Curriculum and their school dictates the requirements of reaching a certain level of knowledge of past events. As such there is a pressure on the individual to meet the standards and requirements of those external forces through satisfactory performance in assessment of prescribed topics. Autonomous behaviour would conversely, be in studying history because of the personal enjoyment and satisfaction derived through

the pleasure of learning and the gratification of acquiring new understanding about people and events at particular times.

For academic providers, it is the balancing act of offering intrinsically motivated rewards as encouragement for learning, pitted against the requirements of external stakeholders such as state, country and parents, who can overtly or covertly pressure providers to maintain acceptable performance levels, thus resulting in what Ryan and Deci (2000) refer to as “compliant” behaviour. Such behaviours are contrary to the development of positive growth; a culture of compliance is often the barrier against which people struggle unless other equally powerful influences are available.

Extant literature indicates that the ability for positive growth (see Reed, Kirschner and Jolles, (2015), Stankov, Morony and Lee (2014), Ryan, Huta and Deci (2013)), that is to see oneself as successful and to persist despite duress, are important signifiers of high levels in what Hanley *et al.* (2015) believe to be a combination of self-efficacy and fortitude. Indeed, Bong *et al.* (2012) hold that through interpretation and recognition of the links between the beliefs created and held by individuals and their ability to achieve success, greater insight can be gained into determining why individuals persist in a course of action and how they might modify it for a more successful outcome.

This type of expectancy belief, as discussed earlier in this chapter can be considered as the ability to modify an individual’s environment and accordingly, change their future actions. Academic Confidence, being a perception held by an individual student, thus ultimately influences that student’s idea of success or failure. It stands to reason then, that by drilling down into the particulars of why a student has certain beliefs about their likelihood of academic success, more explicit and targeted assistance can be offered to those with less optimal ideas about their likelihood of success, thereby creating more positive experiences for students and teachers alike.

Alfassi (2003, pg. 28) points out that:

“Students' belief in their capabilities to master academic activities affects their aspirations, level of interest, in intellectual pursuits and their academic achievements”.

This is a key theme throughout this thesis. Those students who perceive their abilities as less than those of their classmates are likely the ones at risk. Such judgements of ability, as Bandura suggested in his seminal work on self-efficacy (Bandura 2012), both influence and motivate how students think. In the working life of most educators, there are incidents where students appear to give in to their perceptions, no matter if their actual performance belies that perception; subsequently they withdraw from active participation in class. Indeed, one of the aspects of Academic Confidence discussed by Sander (2009) was the idea of previous academic experiences as an influencer of perceptions of ability.

The results presented in Chapter 5 and the discussion in Chapter 6 of this thesis demonstrate the power of such expectancy beliefs, demonstrating how both positive and negative academic experiences have shaped the perceptions of respondents' abilities throughout their lives. As a primary aim of this thesis is to explore the effects of such experiences and demonstrate the link between Academic Sustenance and its relationship to Academic Confidence, it is important to consider the psychological perspective of optimism and resilience as affective behaviours and responses.

It is when an environment of encouragement supports self-effective beliefs, that the potential for permanent change impacts the source of a student's perception of ability. For example, a student may have comprehension abilities due to undiagnosed learning difficulties. Once the diagnosis is made and strategies put into place, students frequently flourish. They recognise that it is not that they are incapable of understanding the material; it is that a different approach is needed in order to bypass the comprehension constraint.

As such, two of the central questions forming this study stem from understanding more about the influence of previous academic experiences and how

Academic Sustenance accents such experiences. What actions or processes affect students' Academic Confidence and secondly, how might this be enhanced for increased Academic Confidence? Some attempts at an explanation are suggested in the motivation and self-theories literature. On-going research by Schunk and Bursuck (2015), Martin *et al.* (2015) and Collie *et al.* (2015) is been at the forefront of investigations into motivational variables; their research has opened new insights into the distinctions between self-efficacy, academic buoyancy and student confidence.

By gaining insight into why students might approach education as well as related activities requiring development and mastery of new tasks and abilities in a prescribed time frame with different levels of confidence, much can be determined about the kind of confidence levels student might demonstrate over their academic lifetime and also are likely the result of contact with or lack of Academic Sustenance. To establish the basis of this conceptualisation, it is even more essential to look at why students have made particular decisions and choices about their abilities, rather than how they have maintained a particular perception of confidence in their academic abilities.

2.21 Summary

In considering the concept of Academic Sustenance and how it may be the intrinsic source of a student's level of Academic Confidence, it was necessary to examine the conceptual ideas and dialogues concerning self-efficacy, motivation and confidence. As the discussion indicated, this is an extensive field of literature, spanning decades, with the current focus in the last ten years shifting from student confidence to those of educators and educational providers. This literature however, suggests or pinpoints few explicit strategies for assisting a diverse student body with their academic challenges. Whichever focus prevails, it is certain that a culture of positive efficacy is fundamental in enhancing, improving and enriching both the psychological and social development of the individual. In seeking to understand how such effects shape our lives and direct our futures, much more can be gleaned when looking into the complexities of the psychology of the academic self.

At this point in the discussion, the literature review has identified clear links between the agency of self-efficacy, the predictive quality of Academic Confidence and the emotional aspect of Academic Sustenance. It has been established that Academic Confidence is affected by a combination of components in these areas. A key distinction in this study is the identification of an overall measure of Academic Confidence, unlike more task specific self-efficacy measures, which assist with the understanding of actual performance in specific circumstances.

The use of the ABC scale in this study is in order to determine different perceptions of anticipated performance. It should be noted that this study does in no way seek to replicate the work carried out by Sander and Sanders, beginning in 2003. This study's investigation is focused on exploring the differences in levels of Academic Confidence in commencing students, teasing out commonalities amongst those reporting different levels of confidence thereby signifying the sustaining effect of Academic Sustenance in building and enhancing the ability of students to develop the necessary determination and stamina required to assist them academically in dealing with setback, challenges and obstacles.

The objective has been to examine this psychological aspect of behaviour affecting a student's Academic Confidence. This concerns the "why" rather than the "how" of student performance.

This is the first of two key distinctions, in that seeking to understand the differences that might exist between students and the confidence they have in approaching their studies, a link between previous academic experiences, based on exposure to Academic Sustenance and current levels of Academic Confidence, might be recognised. Such links may encompass work ethics or simply a different level of resolve in goal setting (determination), work ethic (effort), flexibility (resilience) and strengths (stamina). Chapter 5 demonstrates these aspects of Academic Sustenance and their affect on Academic Confidence, as students reflect on their previous experiences and consider them in the perspective of how these formative moments may have shaped their later incentives and purposes.

The second distinction is that this study is investigating how students' levels of Academic Confidence relate to their anticipated performance, thus further insight may be gained in understanding how such confidence interacts and intermingles with wider implications for students' overall experiences.

As mentioned previously, Sander and Sanders' early research into Academic Confidence considered levels of professed confidence amongst students when approaching academic tasks and behaviours. As such, Academic Confidence is regarded as an element of student outcome, which allows insight into approaches to learning. If differences do exist between students, then by encouraging students to be aware of their efforts to achieve positive outcomes, those educational facilities recognizing the significance and effects will develop powerful mechanisms to enhance such experiences. This point of difference is a significant indicator of this thesis and the long-term implications and relationships to positive, quality experiences will be discussed in Chapter 7.

The literature reviewed has shown that the concept of Academic Confidence bridges the gap between self-efficacy and self-concept constructs. As a facet of the

motivation framework, a clearer understanding of the manner in which students perceive themselves and their ability to be successful will assist in enhancing the literature encompassing self-efficacy and the psychological underpinnings of the individual. The review has equally considered the significance and relevance of a number of aspects of the self: motivation, self-concept, expectancy, and demonstrated how all of these influence Academic Confidence. As Academic Sustenance draws on and fuels aspects of academic motivation according to (Elliot and Dweck, 2013); considered as the desire to obtain and achieve an acceptable level of competence; thus the discussion of Academic Confidence and its relationship to Academic Sustenance must therefore incorporate these central ideas.

2.22 Final Thoughts

This chapter positioned the origin of the investigation, beginning with observations from the researcher's practice in working with students from different educational backgrounds. The context of the study has been discussed and its place in the literature of self-concept, self-esteem and self-confidence established. Key theories encompassing the effects of motivation, academic optimism and achievement have also been advanced and discussion as to the merits and shortcomings of these theories has been laid out. The notion of Academic Sustenance as an element capable of nurturing positive development of Academic Confidence was introduced and conceptualised as a key aspect of why students deal with academic challenges in the ways that they do.

What has emerged from the literature presented is that in looking at the level of Academic Confidence held by students on commencement of their academic studies, is the gap found when considering the influences affecting an individual reflecting their perceptions of academic ability. That gap is the emotive affect of past experiences, which deepens a response to a set of behaviours encompassing hope, optimism and resilience.

It is a given that much can be learned about the probability of a successful outcome in achievement and performance. In gaining a sharper focus of how students

might approach their university studies, educators can offer targeted assistance to those whose confidence may have suffered due to breaches or privations in their previous experiences. In examining the effect and influence of Academic Sustenance on Academic Confidence, more can be understood about the psychology of the self and the potential to encourage, foster and promote growth and development.

The following chapters in the thesis present the theoretical approach taken for the study's design and the manner in which it was carried out. Chapter 3 presents the methodology for the study whilst Chapter 4 discusses the study's administration and methods of data collection, in both quantitative and qualitative phases.

Chapter 3 Methodology

3.1 Introduction

It is usual in a thesis to have a single chapter detailing the particulars of the methodology in order to define the study's design and rationale. As the Introduction and later discussion in Chapter 1 has established, this study employs a mixed method approach; in order to present a clear picture of this line of inquiry, the methodology discussion is divided into two chapters. This chapter details the particulars of the methodology positioning the foundation of the study, beginning with a justification of the study's framework, followed by a consideration of the choice of qualitative approaches, along with a rationalisation of the study's mixed methods approach. The method for collecting, collating and classifying the data is presented in Chapter 4.

3.2 Framing the study

This study was framed through use of elements of Narrative Inquiry (NI) together with a purposeful sample of qualitative interview data analysed thematically and supported by quantitative data. As the study investigated a possible relationship between Academic Confidence and the construct of Academic Sustainance, it was necessary to draw on a combination of approaches so as to get to the substance of such a relationship. The quantitative data, through use of an instrument gauging the level of a student's Academic Confidence, captured a snapshot of an individual's Overall Academic Confidence. Additional data was collected through narrative interviews, in order to explore the particular stories of students, so as to identify and collate aspects of the events or circumstances in which Academic Sustainance affected either positively or adversely, their level of Academic Confidence.

The study therefore was not a purely phenomenographical study and makes no claim to this but rather, draws on both personal narrative and phenomenographic principles of inquiry to investigate both lived experiences and past educational experiences as part of the research framework.

This was an important distinction, as the quantitative data in itself could not satisfactorily provide definitive answers for 'why' students approached their studies with different levels of Academic Confidence, only that such differences in their Overall Academic Confidence (OAC) levels existed, as indicated by their scores. The interviews provided a platform in which students, when faced with academic challenges or obstacles, recounted their recollections of the experiences helping to shape or redirect their intentions, thus providing signposts of the relationship between Academic Sustenance and Academic Confidence.

In order to understand the advantages of this approach, a consideration of theoretical frameworks is presented in the following section of the discussion.

3.3 Theoretical framework for research

Educational research methodology, according to Punch and Oancea (2014), Bernard and Gravlee (2014) and Denzin and Lincoln (2005, pg. 6) draws on an array of methods and processes with which to conduct investigations. The variety of the available approaches, compared to other disciplines such as the hard sciences, may incline the researcher to less rigid structures but the principles and parameters of research remain unchanged. The nature of qualitative research endeavours to understand 'how' or 'what' is happening in a situation, whereas quantitative approaches look to understand 'why'. Much of this nature, as Palinkas *et al.* (2015) and Denzin and Lincoln (2005) point out, deals with compound situations and as such, is not easily answered through a single process approach. Instead, the investigation may require looking at the issue in multiple dimensions. These layers may then define the complexity of the research question or questions, leading the researcher to combine several processes in order to reach an understanding of the issues and offer a rationale to clarify the findings.

Kitto, Chesters and Grbich (2008, pg. 243) argue that whereas quantitative research deals with measuring the extent, size or magnitude of a phenomenon, this does not fit with most qualitative approaches due to differences in sampling and frameworks. As such, in order to get at the substance of a particular research inquiry,

it is crucial that rigour, credibility and relevance are used to judge the quality or “trustworthiness” of a study. As qualitative research trusts in the willingness of and active participation from respondents, Cousin (2009, pg. 8) maintains that trust is in itself, a critical element of qualitative research, stating:

“...people will not tell you what is happening unless they trust you; trust cannot be built by keeping one’s distance.”

Credibility and rigor of qualitative approaches have been criticised by proponents of more quantitative approaches and indeed there is a difference in maintaining rigor when dealing with human responses. This will be discussed further in Section 3.8.5. What is fundamental is the understanding that solely numbers or theory, in isolation, cannot explain human activity of any kind. As Hammersley and Atkinson (2007, pg. 4) point out, whose research into ethnological principles underpins many contemporary approaches, the role of qualitative research builds on:

“... the development or the ordinary modes of making sense of the social world ... in a manner attuned to the specific purposes of producing research knowledge”.

The basis for qualitative research therefore, relies on the understanding that actions can be understood and rationalized through observation and contextual analysis. Patton (2005), Glaser and Strauss (2009) and Creswell (1998, pg. 17) maintain that the so-called “wide-angle lens” approach of quantitative studies will not provide answers if close up views are needed. For this reason, a “zoom” lens approach of complementary qualitative inquiry is both necessary and appropriate.

In short, qualitative research requires a diversity of methods enabling the researcher to collect, surface and analyse data in order to provide rich, vivid accounts of a study’s setting. In seeking to understand the actions of academically confident students, along with possible behavioural commonalities, it is pertinent to use a combination of methods in order to achieve that detailed view. However, it is beneficial to consider the basis and traditions of qualitative research, in order to

position the framework of this study more precisely. Accordingly, the backdrop of qualitative research approaches is discussed in the following section.

3.4 Qualitative research traditions

There are a number of traditions of inquiry regularly used in qualitative research. Many stem from the perspectives of sociology, anthropology and biography. Grbich (2007) maintains that one in particular, blazed a path for numerous current qualitative data analysis approaches. The approach was a theory induction method developed in the late 1960's known as grounded theory, proposed and refined by Glaser and Strauss (2009) who originally put forward their construct based on sociological principles in order to consider all data as useful in understanding types of human actions. Grounded theory therefore, can be considered as a method in which qualitative research considers and conceptualises data that might not otherwise be investigated by empirical methods.

Grounded theory allows the researcher through coding and conceptualising, to advance a theory of action or explain a type of behavioural action, which might otherwise not fit with a more traditional approach. Consequently, it allows for the development of more interpretive views of qualitative material, which as Denzin and Lincoln suggest, help researchers understand the world of 'lived experience' (2005, pg. 8). In examining the lived experience, Cousin suggests that by considering the way in which people understand and experience the same thing (2009, pg. 183), more insight can be gained into the range and depth of capabilities. This approach paved the way for researchers to explore different ways of discerning why and how people acted the way they did in certain circumstances.

3.4.1 A comment about theoretical approaches

The key to research is interpretation and as such, stretches across different landscapes and conceptions. Denzin and Lincoln (2005) point out that there have been many competing definitions and tensions within the field of qualitative research. There are numerous ways to conduct research and of those, it should be noted that

grounded theory in particular, is somewhat contentious. It could be argued that the notion of the truly objective researcher is an ideal that does not exist, as it is not possible to approach data without preconceived ideas or presumptions of the expectations of the data.

This study is not however taking a grounded theory approach; instead it is seeking an interpretive view in order to better understand behaviourally or motivationally what different levels of Academic Confidence suggest and how these relate to the conceptualisation of Academic Sustenance. Thus three particular approaches of inquiry are considered: the Phenomenographic approach Narrative Inquiry and Thematic Analysis. All stem from grounded theory, however each approach employs an explanatory method for understanding data, rather than a more procedural one.

As this study is investigating the relationship between Academic Sustenance and Academic Confidence as well as likely effects on Academic Confidence through discussion with respondents and collation of the similarities and differences of group responses, it is appropriate to consider the merits of the following approaches, discussed in the next sections.

3.4.2 Appraisal: Three comparable qualitative methods

The research questions comprising this study were initially proposed in Chapter 1, Section 1.13, so in order to frame this study's methodology, three particular inquiry approaches are considered, specifically: Phenomenography, Narrative Inquiry and Thematic Analysis. Each approach has merit; as Cousin indicates, each approach shares a strong intellectual direction with on-going scholarship guiding the research (2009, pg. 2), without pinning either to a narrowly defined approach. What is important therefore, is the manner in which the framework bolsters the data through the provision of clear and substantive confirmation of a particular action or experience. For this reason, the three approaches indicated are valid for the analytical framework this study.

3.4.2.1 The Phenomenographic approach

Phenomenographical analysis is considered as Denzin and Lincoln suggest, a way of making sense of interpretive understanding of human occurrences (2003, pg. 297). The purpose of Phenomenography is, as Cousin states:

“... to identify qualitatively different experiences and understandings of a particular phenomenon and amongst a particular sample of the population” (2009, pg. 183).

This approach therefore, is a means of interpretation of actions in meaningful and objective ways. Through examining the ways in which a cross section of commencing students, with different academic backgrounds, ages and academic experiences self-rate their abilities, a phenomenographical approach according to Marton (1988, pg. 145), attempts to capture a variation in the data and assign a category describing both its uniqueness within the experience and likewise, its logical place within the progressive stages of that experience.

If through seeking to understand how in this study, past academic experiences affect a student's Academic Confidence, it is as Marton and Saljo (1976) suggest, fundamental to comprehend the differences which may have shaped a student's perception of their abilities and therefore, their level of Academic Confidence in the demonstration and delineation of those abilities. That dynamic shaping of perceptions and experiences is, as Cousin points out, taking place through the behaviour of others and through subsequent and on-going experiences at different institutions (2009, pg. 186).

This is a key notion, that past experiences can drive such actions and perceptions, so as argued by this thesis, Academic Sustainance, though sustaining experiences, provides the foundation of those perceptions. However, in order to determine the accuracy of such perceptions of ability, Cousin suggests that looking outside of general classifications may be necessary in order to avoid limited taxonomies and over-conceptualisations of events (2009, pg. 188).

An equally important consideration is the emotional aspect of learning, an aspect of which phenomenological categorisations often overlook. As this study is seeking to understand the effects of past academic experiences on student's Academic Confidence, the emotional impact of those experiences must be considered and indeed, underpins the construct and conceptualisation of the relationship of Academic Sustenance and Academic Confidence.

A conventional phenomenological approach therefore, may misrepresent some of the nuances of data reported by respondents due to the hierarchical structure of categorisation and coding, which is why a narrative research approach should also be considered as a valid method of inquiry.

3.4.2.2 Narrative Inquiry approaches

A Narrative Inquiry differs in that it allows the nature in this instance, of how students have established themselves to the point from which they approach different aspects of their learning, to be revealed by participants, in their own words and as part of a reflexive process.

Bruner (1991, pg. 2) suggests that narratives allow for exploration of peoples "reality construction". He points out that:

"...each particular way of using intelligence develops an integrity of its own - a kind of knowledge plus skill plus tool integrity - that fits it to a particular range of applicability".

Bruner (op cit.) further suggests that Narrative Inquiries allow the researcher to surface and connect diverse, multifaceted events and in doing so, uncover the structure and sense of how people see those events. Lyons and LaBoskey (2002, pg. 8) similarly suggest that Narrative Inquiry serves as an investigative function, a mode of inquiry to unpack a particular puzzle of explanation about a specific event or series of events, as the authors describe it:

"... capturing discourses of meaning and interpretation" (2002, pg. 2).

Narrative Inquiry heightens the process of storytelling while infusing it with a sense of purpose and allowing the action of reflection to be amplified. This is an important aspect of this study as this thesis proposes that understanding how and why Academic Confidence levels might be varied for students encompasses an emotional aspect, conceptualised as Academic Sustenance. Indeed, as Cousins observes:

“...there is an intimate link between how we look back and how we look forward. The stories we construct about our past shape how we see ourselves and what we think it is possible to do with our lives.” (2009, pg. 96)

Having reviewed the elements of these approaches, Thematic Analysis (TA) is now considered. As an approach, TA offers further flexibility, as instead of deciding in advance of the central categories, it allows for emergent classification of data.

3.4.2.3 Thematic Analysis

Braun, Clarke and Terry (2014, pg. 95-96) consider the basis of Thematic Analysis as an interpretive content analysis, permitting a more adaptable system of classifying or coding data, so as to begin describing various experiences. A key benefit therefore is as Joffe (2012) suggests, the fit of TA as part of the suppositions of a phenomenographic approach but also, the theoretical flexibility with which coding can be undertaken in a more organic way. In this study, as respondents are reflecting on aspects of their studies and the way in which experiences have affected them, an approach which allows for emergent rather than pre-considered themes would be both appropriate and pliable, in order to accommodate possible divergent and shifting interpretations within the data.

One of the issues of Phenomenography is, as Cousin points out; that it favours conceptual understanding of a particular set of actions and ignores the emotional dimension of why those actions might be happening (2009, pg. 188). As this study considers an emotional aspect as a possible reason as to why students might hold different levels of Academic Confidence, it is clear a fully Phenomenographic approach is not altogether suitable. For this reason, a mixed methods approach, drawing from

principles of gathering stories and experiences of events through Thematic Analysis and that of a Phenomenographic approach of categorising shared experiences is both germane and appropriate.

At this point of the discussion, it is useful to restate the study objectives and research questions. In seeking to understand the relationship between Academic Sustenance and Academic Confidence and to probe behaviourally or motivationally what it means to have Academic Confidence as a student, there are three fundamental questions:

- What particular elements or similarities do academically confident students have in common?
- How does Academic Sustenance and past academic experiences affect students' Academic Confidence?
- What particular aspects of this relationship are noticeable in regard to students' levels of Academic Confidence?

The predominant research question of how Academic Confidence is both present and constructed, suggests a mixed method inquiry would be appropriate; the choice of this methodology considers the quantitative measurement of an Overall Academic Confidence level, in combination with a qualitative inquiry to probe more deeply into the told stories of various elements of Academic Confidence. The following section outlines the particulars of the approach and offers a rationalisation for the selection of scales and of the interview style.

3.5 Approach for this study

The study is framed as outlined in the introduction of this chapter, as a mixed methods study, incorporating principles from both Thematic Analysis and Narrative Inquiry as well as using quantitative data. Denzin and Lincoln note that such approaches allow for multiple methods as a way of capturing "as much of reality as possible...to capture the individual's point of view" (2005, pg. 12), with both

qualitative and quantitative orientations for the data. It draws on a mixed methods approach to data collection, utilising a self-reporting survey instrument for quantitative data recording respondents' perceptions of their Academic Confidence. Selection of the survey instrument is discussed in section 3.6 of this chapter.

The study also takes a narrativistic approach for the interview phase as the questions are structured to encourage respondents to relate particular aspects of their past academic experiences in relation to the survey instrument questions. The complete list of interview questions can be found in Appendix E and the question designs are discussed in more detail in section 3.12.6.

As previously discussed, this study also draws upon a thematic analysis approach as it structures and categorises the interview material into themes in order to clarify the relationships between respondent views and experiences.

3.6 Survey instruments

In order to determine if Academic Confidence could be measured and assessed quantitatively, several instruments were considered. Given the link between academic self efficacy and academic self-concept, as discussed in the literature review, the appropriateness of using instruments to investigate aspects of a student's beliefs in their abilities were considered. As a number of existing self-efficacy measures ask students to rate their general feelings of self-regard, three instruments in particular were considered as possibilities for this study: Marsh's Self Determination Questionnaire 111 (SDQ 111) scales, Stark *et al.*'s Student Goals Exploration (SGE) scales and Rosenberg's Self-Esteem (RSE) scales. A fourth instrument, Sander and Sander's 2003 Academic Behavioural Confidence scale was also considered, however in order to assess the best fit for the study, it was necessary to consider specific aspects being addressed by each instrument. The following section outlines each of the scales and compares their overall objectives.

3.6.1 Comparisons of instruments

A. Marsh's Self Determination Questionnaire 111 (SDQ 111) is one of a series of instruments designed to measure the self-concepts of late adolescents and young adults. Additional versions of the scale (SDQ1 and SDQ 11) are designed for younger pre-adolescent respondents (Marsh and Peart, 1988, pg. 395). As the anticipated sample for this study would consist of young adults, these earlier versions were considered less suitable and therefore less applicable. The instrument consists of 122 items and is grouped into 11 scales ranging from General Self (developed from the Rosenberg RSE scale, according to Marsh and Peart, *op cit.*) to Relationship with Peers (same and opposite sex), and Emotional Stability, and asks respondents in a combination of positive and negatively expressed statements, to rate their belief in their ability in particular circumstances, on an scale of 1 (false) to 6 (true).

This instrument although multi-dimensional and useful in assessing respondent's beliefs in aspects of confidence and ability, does not specifically address the academic or educational component required for this study into Academic Confidence.

B. Stark *et al.*'s SGE instrument focuses on specific goals students have in relation to their studies. It has a series of four point scales, 1 being "Not at all important" to 4 being "Very important", looking at items such as academic orientations, goal attributes and levels of confidence in the prediction of success in a course. In addition, the SGE also includes attitudinal items, 1 being "Not at all like me" to 4 being "Very like me". Stark *et al.* (1991, pg. 414) notes that the instrument also includes subject-specific goal scales, which discriminate amongst a variety of humanities, language and science-orientated courses, in order to allow for singular focus in particular disciplines.

The instrument does contain some confidence measures but these are restricted to course-specific expectations. There are but two scales which ask respondents to rate their level of anxiety as a confident or anxious student in relation to study skills. This was ineffective as an accurate measure of Academic Confidence.

The SGE is useful in determining reliable measures of course related goals and student achievement but not those behaviours, which might lead to course-related success. It was considered therefore that the SGE lacked the depth of insight necessary to explore the nature of Academic Confidence. Stark *et al.* (1991, pg. 421) notes that that results gained from the SGE should not be aggregated beyond the discipline level in generalising results of student goals. As such, the scale was considered as unlikely to capture the level of data detail needed to first determine an Academic Confidence measure and second, offer some interpretation of how students perceive their level of confidence when approaching academic tasks.

C. Rosenberg's Self-Esteem (RSE) scale asks respondents to rate their self-esteem levels through a series of ten items, five positively and five negatively worded. The result is a single item measure that can be used to identify high or low self-esteem (Robins *et al.* 2001, pg. 151). Mullen *et al.* points out that this scale had been tested extensively over the last three decades with wide ranging samples (2013, pg. 153). Marsh *et al.* (2005) however found a consistent response-style bias based on item wording, which throws some doubt onto interpretations of RSE responses.

The major criticism of the RSE scale is the two-dimensionality of results. Opponents claim no studies have explored potential individual differences in the interpretation of RSE across gender or levels of education among older adults (Mullen *et al.*, 2013, pg. 154). As this study is focused on understanding differences in student's Academic Confidence and has a wide sample, it was felt the RSE scale did not address the issues of behaviours and confidence comprising the primary focus of investigation.

Opponents of these three instruments have pointed out the number of repetitive questions, which may irritate respondents; some of who pointed out that the question has already been asked and answered (Robins *et al.* 2001, pg. 152). This may lead to imbalances in the data, which would not reflect the authenticity of respondent reports.

D. The fourth instrument in consideration was Sander and Sanders's Academic Behavioural Confidence (ABC) Scale. The scale consists of 24 items arranged in a Likert style scale of 1-5; 1 being 'Not At All Confident' to 5 being 'Very Confident', covering a selection of common academic tasks. The instrument is designed to examine the sense of self that students' have when considering their chances of success academically. That view can be positive or negative thus the instrument falls under the purview of understanding the academic self psychometrically (Sander and Sanders, 2006, pg. 29).

Respondents are asked to circle or otherwise indicate their level of confidence on the scale in performing such activities as: preparing academic work for assessment, attending lectures and other taught academic activities in a timely manner and establishing a study schedule for revision.

Sander and Sanders note that the ABC scale was conceptualised to: "understand student confidence in themselves as learners" (2006, pg. 34), this distinction situates it between measures of self-concept and self-efficacy. As such, the instrument was considered the best fit for the study's research inquiry into understanding the elements academically confident students have in common as well as those actions or processes students use of attain in the course of becoming academically confident. The scale returned a high level of internal reliability, with a Cronbach's Alpha of .88. As such, the suitability and relevance of the scale in this study was recognized as the most appropriate and was adopted for data collection.

3.7 Rationale of selection of ABC scale

Of the four instruments considered for this study the ABC scale survey instrument's relevance and background was considered and it was noted that it acknowledged the influences of self-effective measures of individual actions and intentions, as it draws on both self-esteem and self-concept beliefs held by students, thus indicating its suitability and application for this study.

Having considered the particulars of possible survey instruments, the following sections of this chapter consider the confidentiality and security ethics of collecting and managing the data, as well as the consents and approvals for the study.

3.8 Ethical considerations in research

Providing an ethical framework where the integrity and credibility of the data is both provided and upheld is fundamental in any research and affords both reliability and sensitivity for the nature of the particular research. Cousin points out that the protective function of the research helps shield both researcher and researched (2009, pg. 17). As such, protecting the validity of data through accurate and faithful reportage along with safeguarding the identities of all contributors is crucial. In establishing a neutral power level between researcher and participants along with systematic and clearly defined collection strategies, research methods should be unambiguous and as free from bias as possible. Although one of the primary objectives underpinning any research project is the establishment of a trusting relationship between researcher and respondent, in order to present an authentic depiction of the events and discussion, an equally necessary objective is to acknowledge contributors' candid opinions and disclosures without preconceptions. The following sections detail the considerations and measures taken to establish and maintain ethical frameworks, respondent confidentiality and safekeeping of collected data.

3.8.1 Ethical considerations for this study

Waratah State* University policy requires all research involving human participants to be carried out according to Section A of the Australian Code for the Responsible Conduct of Research, based on the 2007 National Statement on Ethical Conduct in Human Research (NHMRC - Updated December 2013). As such, responsible research demonstrates respect for human research participants, the resources used to conduct research and responsible communication of all research results (Waratah State* University, 2014). Accordingly, Ethics permission for the study was obtained from both Durham University (See Appendix A) and from Waratah State* University.

The study was carried out under the policies for research as set down by Waratah State*'s Human Research Ethics committee, as participants were drawn from the student population of that university.

At each stage of the interactions between researcher and study participant, a neutral power relationship was maintained. Verbal statements concerning confidentiality and neutrality, in that no information given by the respondent either in the quantitative or qualitative data collection phases of the study would be shared with or have any bearing on status, performance or perception of that respondent at any time during their time at university; were made at the beginning of each session when data was to be collected and were re-stated at the end of the collection interval. Similar statements were given both verbally, prior to commencement of interviews and in writing via the consent forms (See Appendix C for examples of this documentation). As such, participants were advised that individual anecdotes and accounts of events and experiences could be used as part of the narrative of this thesis.

3.8.2 Data Confidentiality and Participant Privacy

Assuring students of both the importance of their anonymity and data confidentiality was underscored throughout the data collection phases of the study. Participants were informed that a level of confidentiality would be maintained relating to statements made through either phases of the data collection process; identifying details would be anonymised and data would not be shared with the University itself. Respondents were encouraged to be candid and cooperative in answering questions, without concern that their opinions might in some way be held against them during a later phase of their academic program.

As much as possible, actual place names and identities have been altered in order to maintain anonymity and confidentiality. For example, the qualitative material cited in the discussion and findings sections contains a number of direct quotations drawn from interview transcripts. Those respondent identities have been obscured in order to retain privacy. These are echoes of the participants but do not embody

genuine identities. All names attributed to cited statements are pseudonyms and are indicated with an asterisk, for example: Philippa T* or Chandra P*.

Likewise, the name of the Australian university from whose student body participants were drawn, has also been given a pseudonym. The university is referred to as Waratah State* University; the campuses which comprise the University are called respectively: Wattle* campus, Acacia* campus, Grevillia* campus and Melaleuca* campus.

As discussed in section 3.8.1, respondents were advised that interview material would be used in the study for illustrative purposes. Consent was granted for such use, thus in choosing to participate, respondents were aware of the intended use of materials as part of the final thesis and for potential future publications.

It is noted that although these confidentiality measures were taken and participants were advised accordingly at each stage of their participation, it might still be possible for third parties to recognise an anecdotal recollection of an event, which might suggest a particular individual's experience or identity. As themes and incidents are discussed, the study draws on respondents' stories in their own words, in order to convey an authentic sense of a particular respondent when recalling a specific situation. As such, readers may hazard a guess as to the identity of the participant, however, this is considered unlikely due to the volume and diversity of the student population of Waratah State* University.

The following section details the method for gaining approval for data collection.

3.8.3 Approvals and consents

For the initial round of data collection for the Pilot study and again for the Main study, approval was gained from the session facilitators beforehand. At each session, information packages consisting of an information sheet outlining the nature of the research project (see Appendix B and C (2) for examples of each) and consent forms (see Appendix B and C (1) for examples), were distributed to potential

respondents. These detailed the nature of personal information being collected, and how it would be used and managed. Data confidentiality and management was explained both in writing through the information pack and verbally to each group prior to data collection.

Additionally, overall data security was explained. These assurances were also restated at each collection session. Participants were asked to read the information sheet pertaining to the research project and then if satisfied, to sign the participant consent forms prior to completing the ABC survey instrument (See Appendix F).

As part of the data management process for the study, all consent forms were scanned after each session and digital copies maintained along with the original hard copies. This process and the study's security measures are discussed in the following section.

3.8.4 Security and Data management

All data was stored in both hard and soft copy; the original hard copies in dedicated box files to ensure no overlap of days or venues. Two electronic media storage systems were used; DVD backup disks and flash drives. All data was kept in a secure, off-site location. No respondent data of either personal or other nature was shared with any part of Waratah State* University departments or faculty. In regard to interview material, care was exercised in maintaining anonymity as far as possible, however, as later chapters in this thesis demonstrate, extracts from respondent interviews are included with some identifying material redacted whilst still observing the essence of each respondent's own observations and responses. Such instances are indicated by use of an asterisk in this way: *.

3.8.5 Survey data reliability: validity management

In any research scenario, it is desirable for respondents to be invested with the study and its objectives. In reality, there are often issues, for example, when data is deliberately made unusable by respondents or if some sections of surveys are left incomplete. In order to limit data skewing or non-responsiveness, several actions were

considered. Cohen *et al.* (2008, pg. 157) points out that data reliability in questionnaires are subject to the honesty and accuracy of the respondent at the time. If a respondent is disinclined to be fair in their responses, there is little the researcher can do. However, it is important to anticipate non-responsiveness and to encourage the respondent that confidentiality of all material, written or spoken would be enforced and additionally, that candidness of response was valued.

Ideally, each respondent would answer all items in the questionnaire truthfully. However, if an item response was unclear, for example, as a result of altering a response without clearly indicating which was preferred, or leaving a question un-answered, it becomes necessary to control for viability.

Consequently, a cut-off point of response acceptability was gauged. As the ABC scale consisted of 24 items, it was decided that omission of two or more responses out of 24 would indicate invalidity. In addition, it was decided to manage polarised responses, such as those indicated as all "5" or all "1", as invalid. In such instances, it was likely the respondent was for whatever reason, deliberately skewing the data.

Trust and credibility are important in any research, as the lack of either will have repercussions on both internal and external reliability. In this study, care was exercised in order to establish a level of plausibility with prospective respondents. The following section presents the discussion on how respondent interactions were managed.

3.8.6 Interpersonal issues management

As discussed in the earlier section of data management in this chapter, verbal assurances were given and restated when in direct contact with respondents at every stage of the study, acknowledging the significance of participation, confidentiality and data safety, relative to respondent concerns. Cousin points out that the balance of power between researcher and participants can be fragile (2009, pg. 21) so attention was exercised in establishing a friendly and open exchange of information. Creating an

atmosphere of trust allows for more candid expression of opinions. Cohen *et al.* (2008, pg. 181) suggests that this interpersonal relationship and rapport are:

“...the lifeblood of effective, qualitative inquiry”.

Such sensitivities were particularly important in the interview phase and care was taken to ensure an appropriate and secure site on campus where respondents could not be overheard and could therefore be candid in their responses during the interview phase.

3.9 Summary

This chapter has framed the study, beginning with a discussion of qualitative research traditions in order to highlight the choice of approach. The relative strengths and weakness of three forms of qualitative inquiry: the Phenomenographic approach and a Narrative Inquiry approach alongside of a Thematic Analysis approach. Each of these methodologies' suitability was considered for the study, with the acknowledgment that it was ultimately framed within a personal narrative and phenomenographic outlook.

Beginning with the justification of the study's design and framing, followed by a discussion of the theoretical framework of qualitative research and considering the relevant approaches to design and administration, this chapter also considered the nature and suitability of four survey instruments: Marsh's Self-Determination Questionnaire 111 (SDQ111), Stark *et al.*'s Student Goals Exploration (SGE) scales, Rosenberg's Self-Esteem (RSE) scales and Sander and Sanders' Academic Behavioural Confidence (ABC) scale. Each instrument was discussed and evaluated against the study's research goals, with Sander and Sanders' scale ultimately selected as the best fit for measuring and evaluating levels of Academic Confidence. This chapter also provided the ethical and confidentiality considerations for the research carried out for this study.

3.10 Final thoughts

The construct of Academic Confidence, as explored in Chapter 2's literature review and its relationship to Academic Sustenance, relates to but is not limited by the psychology of learning literature. Therefore if, as it is argued, Academic Confidence has a positive relationship to self-efficacy, then students who demonstrate high levels can be predicted to hold a positive perception of their abilities and projected performance. Correspondingly, those students with lower levels of Academic Confidence would have a less optimistic outlook. If those doing well have similar characteristics, these may indicate evidence of the positive academic experiences conceptualised as Academic Sustenance. Correspondingly, if those students doing less well than their classmates with similar characteristics report different past academic experiences, it could indicate a lack of sustaining experiences.

Baumeister *et al.* (2003, pg. 2) maintains that people's beliefs shape their actions in many important ways and these actions in turn, shape their social reality and the social realities of the people around them. Therefore, any potential differences in levels of students Academic Confidence would most likely be revealed in the study's thematic analysis, which probed more deeply into personal narratives about why events or circumstances resulted in particular beliefs held by the individual. As Academic Confidence is situated within the self-efficacy construct, it was predicted that examination of student perceptions in anticipating academic success would indicate if different experiences do affect confidence in appreciable ways. In doing so, the relationship between confidence-based experiences and sustaining experiences suggesting Academic Sustenance, could be probed and collective experiences collated. Chapter 5 presents these findings, which are discussed in Chapter's 6 and 7.

Chapter 4 Method

4.1 Overview

This chapter presents the specifics of the study's approach to data collection in both the quantitative and qualitative phases. The techniques and procedures used at specific stages of the study in both the Pilot and Main study are defined and clarified. Reflections on the study's design limitations and constraints are discussed and the chapter concludes with considerations on the nature of data collection and how design and intention are key elements of successful qualitative study approaches.

4.2 Data collection: methods and approach

This thesis uses the following terms, which are defined for clarification. Reddy (2012) defines "Re-entry students" as a student returning to HE after an absence of some years. "Direct-entry student" refers to a student entering their university program immediately following on from completion of their secondary education.

Designed as a narrative inquiry with thematic analysis supported by quantitative data, which as Howe (2004) and Walliman (2005) point out, allows for both empirical and chronicle analysis, the study's design allowed for collection of four series of data comprising three quantitative and one qualitative. The collection details are discussed in the following sections. Prior to the main data collection, a pilot study was trialled in order to test both the survey instrument and administration. Details of this trial are discussed in the following section.

4.2.1 Pilot Study 2012: development

In order to test the survey instrument and refine both the documentation and physical administration of the quantitative phase, a Pilot study was undertaken in July 2012 at mid-year intake. This intake allows for students unavailable for the initial start of year intake to commence their studies with a one-semester delay. It is usual for greater numbers of Re-entry and international students to commence mid year as the

decision to take up higher education programs can be held up by other work related factors such as job relocation, career requirements or visa delays. The study's design intended for data collection to take place during Orientation activities and prior to commencement of programs' taught phases. However, as less extensive Orientation activities are offered mid-year as compared to at the start of the academic year in Australian universities, some alterations to the data collection schedule were needed.

As a result, it was proposed to gather data from a large volume undergraduate class commencing their academic programs in July 2012. Permission was sought from both the Head of School and Course Co-ordinator and as the data collection considerations fell under the approvals already granted by the Ethics committee, this was granted. An interval for explaining and administering the study was negotiated with the class facilitator and a time and date agreed for this to take place.

4.2.2 Sampling and recruitment

The Pilot Study accessed a class of 220 participants. Participants were supplied with a three-page document: an information sheet detailing the nature of the research, an overview of the scope of the project in combination with the research consent form plus the ABC survey instrument. In order to facilitate data collection, the consent form and the survey were printed front and rear of a single A4 page in order to prevent potential loss of materials.

An interval of 30 minutes was allocated for the initial data collection, which was broken down as follows. An interval of ten minutes was allowed for introduction of the researcher and the study, plus discussion and explanation of the various documents. A further 8-10 minutes was allowed for completion of the survey instrument along with a simultaneous inquiry window, where respondents' requests for clarification on item wording or consent form meanings were addressed. The time allocation was considered sufficient as respondents had to circle a printed response for each item. Consent details required only standard demographic details so did not require much time for writing.

Typical inquiries during the data collection interval were requests for clarification of program course codes acronyms, necessity for inclusion of last known secondary schooling scores and clarification of locations for previous education. In Australia, considerable numbers of students may undertake their secondary education in remote areas; several respondents sought clarification as to whether their background was classified as metropolitan or rural. Please refer to Appendix B for an example of the respondent personal data and consent form (P).

4.2.3 Data collection

The data collection took place on Acacia* campus at Waratah State* University in the last week of July 2012. Due to unexpected time constraints on the day, it was necessary to curtail the full thirty-minute interval allocated for introducing, administering and de-briefing the survey instrument. This constraint allowed only for a very brief outline of the study and its objectives. Clarification of survey questions were given and inquiries answered as much as possible given the large group. Because of the shortened allocation of time, a number of students declined to participate, as their queries could not be addressed with the time constraints. This may be the reason the number of useable survey responses was less than expected.

4.2.4 Validity and response rate

In order to maintain validity, those surveys with incomplete data responses or missing consent form information such as the respondent's name, were considered invalid and discarded. As relevant information such as GPA scores would be utilised later in the data collation, any consent form missing this detail could not be used in the study. The subsequent sample had a useable response rate (n=97), less than half of the number present (n=220). The distribution of the useable sample was (n=38) females and (n=59) males. The student status distribution was Home (n=75) and International (n=22). This was a below optimum response rate, given the number present.

4.2.5 Data collation

Once collected, each survey was assigned a locator key consisting of two letters designating study sequence, venue and series number, beginning with 01. As this was the Pilot study, it was indicated with the letter 'P'. As the collection took place on Acacia* campus, this was denoted 'A'. Thus, each consent form was marked in the following way: PA* 01 and so on until all collected forms were assigned with their identifying locator key.

Once all locator keys were noted, each response form was scanned both front and rear to safeguard the material. The scanned files were kept on a flash drive purposely used as Pilot study storage. Files were also backed up onto a DVD. Both sets of media were stored in a secure area and were not accessible to anyone other than the researcher.

4.2.6 Interview phase

A total of three respondents from the Pilot sample of 97 indicated willingness to participate in follow-up interviews. When contacted to establish the interview schedule, all three declined further participation. As a result, it was not possible to trial the interview schedule, due to the lack of participants.

4.2.7 Reflections of the Pilot study trial

The Pilot study highlighted several administrative issues, which resulted in limited participation in the survey, including later interview opportunities. This stressed the need for a more detailed discussion to rationalise and clarify the intentions of the study.

Although the sample gathered in the Pilot study was small, the data gathered was advantageous in helping to confirm the existence of different levels of Academic Confidence. When a preliminary analysis was carried out using SPSS, some assessments as to how commencing undergraduate students might perceive their abilities could be made, which are discussed in Chapter 5.

A second, equally important recognition was the need for on-to-one negotiation with session facilitators. Explaining the nature of the study and how data would be collected to the facilitator was a crucial step in ensuring a smooth collection interval. Although the Pilot study was not able to trial both phases of data collection, it was advantageous to test the survey itself for language and style. Useful insights were gained by the researcher as to future management and improvements of the collection process and its administration, for a greater uptake by potential respondents.

4.3 Main Study 2013

The following sections detail the particulars of the Main Study and reflect on the differences in data collection and administration, based on the experiences of the Pilot Study.

4.3.1 Background

The study's original design planned to collect data during Orientation. Some context at this point would be useful. Prior to the formal commencement of taught lectures at the beginning of the academic year is Orientation. The two-week allocation is an adjustment time for commencing students, allowing them to gather on campus and gain a sense of the geographical layout of the campus and also, to informally meet their fellow classmates. Orientation has a secondary purpose; each School presents a series of workshops, known as Early Program Preparation (EPP's), which form tailored induction sessions for the particular school, outlining expectations for students as well as introducing core ideas, amongst which are areas such as workload expectations, research requirements and library facilities and usage. Waratah State* University comprises several campuses across the metropolitan area: Acacia* campus, Wattle* campus, Melaleuca* campus and Grevillia* campus. The Learning and Teaching Units (LTU) on each campus run the EPP sessions, of which both day and evening timeslots are held in order to accommodate the majority of students from both full and part-time programs.

Both full and part time students as well as External students are encouraged to attend the EPP's if time and geographic availability permit. Principal orientation activities take place at the beginning of the academic year; in Australia this begins in late February or early March, depending on the conclusion of summer holidays.

The Main study data was collected during the EPP workshops offered during Orientation in February 2013. Given the study's focus on investigating the possible effects of past academic experiences on students' levels of Academic Confidence, collection of demographic information on educational background was relevant. As a large proportion of students attending university in Australia have, due to geographical distances, had a different educational upbringing, the "Education" section of the consent form asked respondents to indicate whether their education comprised metropolitan, rural or international aspects. Contextually, these were defined as follows. Metropolitan education: any school or educational institution based around a capital city. Rural education in Australia: education in remote areas through the School of the Air or a remote or regional community with a school population consisting of very small numbers. International education: anywhere outside Australia.

4.3.2 Initial Data collection

Quantitative data (T1) was collected from students attending Early Program Preparation (EPP's) workshops held during the two Orientation Weeks, prior to commencement of lectures. Specifics of these collection intervals are given in section 4.3.3. As students had yet to commence their formal studies, this was a key opportunity to gather fresh and authentic perceptions of commencing students. A second set of quantitative data (T2) was collected at the end of the study period in June 2013. The final quantitative data set (G1) was gathered 12 months later, comprising the Grade Point Average (GPA) of all survey respondents. The GPA score indicated the actual academic performance through marked course work assessment of respondents across their first year of HE.

The qualitative data collection took place through interviews and was gathered over a three-month period, from April 2013 to June 2013 inclusive. This time allowed for respondents to establish themselves in the taught phases of university life, allowing two things to occur: they were able to reflect with greater accuracy on their original predictions of ability and secondly, they were more equipped to discuss their current experiences with greater insight into their own actions and activities. This candour was important for the thematic analysis, the results of which are presented in Chapter 5.

4.3.3 Development

When the study was proposed, permission was sought and granted from each of the Early Program Preparation (EPP) coordinators to attend and administer the survey at six separate EPP sessions, across the four campuses during Orientation 2013. Mindful of the issues with the pilot study, a different approach to survey administration was taken. Closer liaison was undertaken with the Learning and Teaching Unit (LTU) staff facilitating the sessions. More time for additional explanation of documentation in the initial distribution of the survey was requested, so a time slot of 40 minutes was negotiated in order to accommodate a detailed explanation of the study to potential participants.

4.3.4 Sampling and recruitment

At each EPP session, the study's objectives were outlined to participants, then if willing, respondents were asked to sign and complete the consent form (see Appendix B) which requested characteristic demographic information such as name; age range, from which respondents could indicate one of seven categories; educational background and country of origin. Data was also collected as to whether respondents were the first in their families to attend university. Respondents could also indicate willingness to participate in follow-up interviews for the qualitative data collection section of the investigation. At each session, time was taken to address the

group, explain the background of the research project and how administration of the survey and accompanying documents would take place.

Both the EPP co-ordinator and I administered the questionnaire at each session, assisting those students requesting help in completing the consent forms. The importance of accurately and truthfully completing the survey was emphasised, as was the benefit to the study through participation in later interviews. Both the session facilitator and I stayed on at the end of the session to clarify final queries and address any language queries regarding meaning or intention from session participants.

In order to thank students for their participation and to act as an incentive, a lucky draw of a gift card for a popular, online music provider was offered to participants; the winner to be randomly selected after the session. The winner was notified by email so the gift card could be delivered at a time and place of their choosing.

The amended approach, closer liaison and longer time allocation proved efficacious as each session obtained an almost 100% response rate. This was in marked contrast to the limited participation elicited from the Pilot study.

4.3.5 Demographics overview

The overall response rate showed improvement, recording a total sample (n=166) over the six collection intervals. The distribution is shown in Table 4.1. There is some overlap between these categorisations, as both males and females, classified as either Home or International, reported having a combination of special educational needs and being the first in their particular families to attend university.

Table 4.1 Respondent distribution in Main study data collection

	Males	Females	Total
Home	47	95	142
International	5	19	24
Total Respondents			166
First Generation University student	24	48	72
Special needs	7	24	31

4.3.6 Documentation – adjustment and changes

The updated consent form (see Appendix C) used in the Main Study was refined from the pilot study in three ways. Firstly, it asked respondents to indicate their country of origin and their ethnic background. This would provide more precise demographic data for the statistical analysis phase, as well as allowing for wider selection of candidates in the interview phase. Secondly, it asked respondents to indicate if known, their secondary education final scores. As attendees at the EPP were enrolled in assorted programs with varied selection criteria depending on the program, this data might provide insight into whether higher performing secondary education students had different perceptions of their performance at tertiary level. Finally, respondents were asked if they had any particular physical or other needs, which might affect their studies. Respondents were not asked to give details. It was noted that of those who chose to do so, some did give a brief description.

Sander noted in his study (2009, pg. 36) that some findings suggested that students with learning or physical difficulties reported significantly lower levels of confidence, compared to their classmates reporting no such difficulties. By seeking information on different educational needs, the data gathered in this study would help to highlight and identify some of the wide variety of anticipated experiences and performances predicted by respondents. These could be explored further in the interview phase with directed questions. Chapter 6 discusses the key findings of this inquiry and other incidental discoveries.

4.3.7 Data collection

The Main study data collections took place on 13th, 14th, 15th, 21st, 23rd and 27th February 2013. Data collection followed the same format as outlined in section 4.3.4; each used the extended time window allocated for explanation, clarification and queries. Sessions were generally well attended with approximately forty participants present at each; it was noted that this figure decreased towards the end of February.

It was likewise noted that participants were generally positive in being asked to participate in the study. Feedback from the initial data collection in early February from both attendees and faculty was encouraging. However, as Cohen *et al.* (2009, pg. 156) warns, external validity of data can be compromised through threats such as the Hawthorn effect, where the effect of participation might change the outcomes or decisions made by respondents merely through the act of participation. This was kept in mind as this phase of data collection was completed and the interview phase of the study, which could not be trialled in the Pilot study due to lack of participants, began.

4.3.8 Considerations of Sample Size

In any area of research, there is the difficulty of gathering reliable and valid data. As Rea and Parker (2014) and Saunders, Lewis and Thornhill (2012) suggest, the act of research sometimes compromises the candour of participants. An optimum sample size is recommended for statistical analysis, according to Rea and Parker (2014, pg. 203), in order to allow researchers to identify relationships amongst survey variables. As Palinkas, Horwitz, Green, Wisdom, Duan and Hoagwood (2015, pg. 533) maintain, purposeful sampling is more consistent with recent developments in quantitative research practices and may be more appropriate to the aims of the research. Although the Main study accounted for one hundred and sixty six responses, it was decided that in order to gain a clearer view of those responses, it would be beneficial to integrate the ninety-seven responses obtained in the Pilot study.

In the case of this study, merging the Pilot and Main study data was done for two reasons. Firstly, the survey instrument had shown only minor issues in administration. Such issues were due to time constraints and not the language and information requests of the survey instrument items. Secondly, the addition of the Pilot study respondents would allow a larger sample to be investigated, and would as Palinkas *et al.* (2015) suggest, allow more information-rich cases to be available for investigation.

As one objective of the study was to investigate different levels of Academic Confidence, merging the two sets of data was considered practical as it increased the

number of measurable data. As the survey instrument questions remained unchanged, it was considered viable in combining the respondent data collected in July 2012 and Feb 2013 to enable a stronger quantitative sample. The merge was carried out and the additional respondents brought the total sample to (n=263). Of this total, eight were discarded, due to incomplete or illegible responses. As discussed in Chapter 3, section 3.8.5, data validity was maintained through discarding those surveys with two or more missing responses. To clarify, if surveys contained two or more missing responses for the 24 questions, the survey was rejected as invalid. When it was unclear as to a response, for example, in cases where an item response was selected then crossed out, with no clear indication as to the preferred answer; this was also considered as invalid and the data excluded from the sample. As a result, only surveys with 100% responses were accepted into the data set for analysis.

Once the invalid survey data were removed, the usable sample was (n=255). Throughout the thesis, this figure of two hundred and fifty five reflects the total viable data and is referred to from this point as the Main Study. The distribution of the data is indicated in Table 4.2.

Table 4.2 Respondent distribution: Main Study

	Males	Females	Total
Home	93	120	213
International	14	28	42
Total			255
First in Family to attend University	48	58	106
Special needs reported	10	25	35

(Total number of valid responses merged from 2012 and 2013 collection intervals)

As the second phase of the study commenced, the absence of available interview participants from the Pilot Study was considered irrelevant as only those respondents who had indicated their willingness to participate in follow-up interviews could be considered. As indicated in section 4.2.6, only three respondents in the Pilot study indicated an inclination for further participation; all declined further involvement when contacted. For this reason the Main study was considered a

sufficiently large sample from which to select respondents willing to participate in the interview phase of the research.

4.3.9 Data analysis method

A principle component analysis (PCA) was conducted in accordance with current statistical methodology. Using the twenty-four items in the survey instrument an exploratory factor analysis (EFA) was undertaken to determine any factors that could be considered aspects of Academic Confidence. An Overall Academic Confidence (OAC) score was able to be determined, which allowed respondents to be classified according to an OAC ranking of High, Mid and Low. A score of High was considered as four or more, Mid was a score of three whilst Low was a score of less than three. The specifics of this calculation are reported in Chapter 5, section 5.2. A resolution suggesting four coherent factors affecting Academic Confidence was also determined. The factor analysis and scale development results are likewise presented in Chapter 5's discussion of results.

As the study was also considering the way in which Academic Confidence might vary for those students with different academic experiences, comparison statistics considering the effect of Age, Gender, Special Educational needs (SEN) and First Generation University student (FGU) were calculated. Confirmatory Factor analysis (CFA) was used to determine the significance of effects and data trends. These results and comparison statistics are also presented in Chapter 5.

4.4 Data collection Phase 2: Interviews

The second phase of data collection was initiated once Orientation sessions were completed, signalling the commencement of taught classes. As the research questions sought to probe the nature and experiences of Academic Confidence and its subsequent relationship to Academic Sustenance; for this qualitative phase of the study, respondents were asked to expand on why they answered an item question as they did, to clarify or explain certain demographic responses, such as academic background and to elaborate on those experiences they believed may have

contributed to the answers given on that day. In doing so, it was hoped to find what Cousin (2009, pg. 72) defines as:

“... meanings to the patterns and variations found in statistical information”.

4.4.1 Background

There were two methods for conducting interviews, depending on the respondent's geographical locations. Some respondents were studying externally and were only on campus specifically to attend the EPP workshop. As they were not available for face-to-face interviews, arrangements were made for telephone interviews.

The data gathered through the interviews had two objectives: to assist in clarifying and describing the characteristics of how students perceived their own abilities in relation to certain academic tasks and secondly, to seek amplification and specifics about individual opinions. Stankov *et al.* (2014, p. 11) proposes that self-belief is an intertwined aspect of confidence, in that:

“...participants are asked to reflect on and evaluate immediately past behaviour”.

This is an important dynamic of the relationship of Academic Confidence to motivation, situated as it is in the literature concerning self-concepts. In this instance, gaining deeper awareness of emerging patterns assisted in two ways; with predicting distinctions between students with different levels of Academic Confidence and secondly, revealed nuances of experience and individual's responses to categories of academic activities. Equally it allowed the researcher to tease out themes of significance to the research project. Such themes would contribute firstly, in fleshing out the way in which respondents saw themselves and secondly, in identification of both differences and commonalities in confidence levels.

4.4.2 Sampling and recruitment

The interview sample was drawn from those respondents who indicated their willingness to participate in further research. As explained in Section 4.3.8, only those who had indicated interview participation consent were included in the interview sample. In order to select interview candidates, the demographic data from the consent form was collated into an MS Excel spread sheet and a formula written to pick out only those respondents who had agreed to participate in follow-up interviews. The formula identified those respondents with Overall Academic Confidence scores ranging from High, Mid and Low, the calculation of which is discussed in Chapter 5, section 5. 2. Also factored into the formula were gender and student status, so as to have an even distribution of males and females as well as Home and International students.

In allowing interview candidates to be designated by these criteria, the interview selection was entirely objective as no personal data was used to unconsciously influence the selection process. As Palinkas *et al.* (2015) points out, purposeful sampling is conducive to qualitative data collection and analysis in mixed method research.

Given the limited response rate of the Pilot Study respondents as detailed in Section 4.3.8, it is speculated that even if the three respondents who indicated willingness had agreed to further involvement, there may have been some question as to the reliability of their responses. As such, the opportunity for qualitative sampling remained unchanged, as it had automatically discounted respondents who did not wish to participate further.

As mentioned previously, interview candidates were randomly selected from the population sample of the Main study (n=255), using a formula created in an MS Excel spread sheet to select candidates meeting the following criteria: a similar number of males and females, with a distribution of High, Mid and Low OAC scores, with an equal division of educational backgrounds. Table 4.3 illustrates the demographics of the selected interview-candidates.

Twenty-six names were produced by the Excel query: those respondents were contacted and an interview schedule established.

Table 4.3 OAC demographic of Interview candidate requests

Student Status	High OAC	Mid OAC	Low OAC	TOTAL
Home Male	2	2	2	6
Home Female	2	1	5	8
International Male	2	2	2	6
International Female	2	1	3	6
TOTAL	8	6	12	26

4.4.3 Sample demographics

Once contacted, a total of fifteen respondents agreed to participate in the follow-up interviews. Of those, only two were not available for face-to-face interviews. Telephone interviews were arranged instead. The confirmed interview sample (n=15) were based on Student status (SSt), Gender, First Generation university student (FGU), Special Needs (SEN) and ranged from 18 – 60 years of age (Age). The distribution is indicated in Table 4.4.

Table 4.4 Interview sample distributions

	Males	Females	Total
Student Status: Home	3	5	8
International	2	5	7
First Generation university student	3	6	9
Special Needs	0	1	1
Age range: 18 - 21	0	1	1
22 -25	1	2	3
26 - 30	1	0	1
31 - 35	1	1	2
36 - 40	1	1	2
41 -50	0	4	4
51 – 60	0	2	2

The interviews were an important opportunity to gain deeper understanding of how and why a student responded to each question in the way they did and equally importantly, to draw out more as to why they thought that way and what other issues might be causing them to assess their perception of ability, and in doing so, unconsciously situate their likelihood of academic success.

As previously stated, from the 26 potential candidates approached for follow up interviews, a total of fifteen agreed to further participation, distributed as 11 females and 4 males. It was decided to further organise the interview sample by Gender and Student Status (SSt), as these variables were predicted as having possible influences on Overall Academic Confidence (OAC). The sample was then compared by OAC: High (4 or greater), Mid (3 – 4) and Low (less than 3) in order to determine if any similarities could be identified through discussion with the interviewees indicating commonalities or disparities in perception or actions between the three confidence levels. Table 4.5 illustrates this distribution, which also indicates the level of Overall Academic Confidence (OAC), based on their ABC scale responses.

Table 4.5 Final Interview sample demographic

Student Status	High OAC	Mid OAC	Low OAC	TOTAL
Home Male	1	1	1	3
Home Female	4	2	3	9
International Male	1	0	0	1
International Female	1	1	0	2
TOTAL	7	4	4	15

4.4.4 Interview Objectives

The intention of the interview schedule was to allow more depth in exploration of any differences, which might be present between students. As the thesis is concerned with investigating the relationship between Academic Sustenance and Academic Confidence, the elements of similarities (research question 1), noticeable aspects of levels of Academic Confidence (research question 3) and the effects of past academic experiences (research question 2), the opportunity to probe the specifics of the respondent's perceptions of their views of their Academic Confidence in relation to their studies, allowed for consideration to determine if some other aspect was being masked, such as the effects of past academic experiences (research question 3). As a result, patterns of behaviourally or motivationally what it means to be academically confident, could be determined.

4.4.5 Documentation

Respondents were sent an additional consent form acknowledging both their agreement to participate in the research and of the use of data in the research project. Prior to the commencement of the interview, respondents were given a copy of their signed consent form and an additional copy of the research information sheet. The interview consent forms were later labelled with the corresponding respondent interview number, scanned and kept with the original hard copies in a secured location. All interviews were recorded and notes were taken throughout the interview to aid with transcription as a precaution against poor sound quality, language comprehension or equipment failure. These were later annotated with the recording transcripts, in order to recall particular key points occurring throughout each discussion.

4.4.6 Scheduling

Each candidate selected in the interview sample was emailed in the first week of April 2013 and invited to select from a series of times and dates at each of the four campuses. Interviews were scheduled to commence at the end of April 2013. As mentioned in the previous section, interviewees were given an additional information sheet and requested to sign an interview consent form (see Appendix D for examples), which outlined the interview procedure and also indicated their rights to refuse or withdraw from further participation. All interviewees agreed to the recording as discussed previously, which was then transcribed for later use.

4.4.7 Interview Arrangements

The study's design called for guided or semi-structured interviews, considered helpful in allowing more stratum of meaning to be uncovered. In order to accommodate the needs of interview candidates, interviews were planned as either in person or as telephone sessions. Two candidates from the interview sample were not available for in person interviews, so were interviewed by telephone. Each interview's duration was scheduled between 40 to 50 minutes.

Lichtman (2006, pg. 118) suggests that a generalised set of questions and format allow the researcher to gather specific material from all individuals being interviewed, yet importantly, allows for segues into other areas as interviewees become more comfortable and candid. The study's question design is reviewed in section 4.4.8.

McCracken's early research into data collection through interviews stressed the importance of allowing the interviewee to speak in their own time and at their own pace, saying:

"...the first objective of the qualitative interview is to allow respondents to tell their own story in their own words" (1988, pg. 34).

Interviews may be the arena through which events or experiences are revealed, which have impacted that individual's life significantly. These events may not have been uncovered or considered without the freedom of a semi-structured format of inquiry. As discussed in Chapter 6, several of the respondents in this study became quite emotional, as past events were recalled and evoked. Care was taken in such instances to ensure the welfare of the respondent. Recording was halted whilst respondents composed themselves and an assurance given that they were comfortable continuing with discussion.

Cousin also suggests that semi-structured interviews should be conceptualised as "third spaces" (2006, pg. 73) as the interviewer and interviewee work together to develop understandings. Venues for interviews on campus were selected on the basis of privacy for the discussion and convenience for participants, as it was important to have a comfortable, sequestered space in which to speak in order to encourage the level of rapport needed for frank and candid discussions. The following section of the discussion considers question style and design and discusses the importance of allowing respondents scope for explanation of responses.

4.4.8 Question design

Lichtman (2006, pg. 122) suggests successful question designs should be a combination of what she terms: 'Grand Tour', 'Comparison/Contrast' and 'Specific Example' questions, Grand Tour questions allow the interview to start in a generalised way and encourage the interviewee to begin talking, without pressure. Between 18-20 questions were asked of the respondents (see Appendix E for interview questions). Following are examples of "Grand Tour" questions from the interview schedule:

"What are your thoughts about how you will do overall in your studies?"

"Could you give me some more information about your previous education?"

Both these questions invite the interviewee to begin talking about their general thoughts concerning their studies and subsequently, sets the scene for specific questions about item responses. The following questions however, indicate 'Specific Example' and 'Comparison/Contrast' type questions concerning academic behavioural confidence, in order to help capture and understand individual's experiences.

"Given your responses to the survey, could you clarify why you answered [response] to question [corresponding question]?"

"What sort of encouragement did you receive toward your studies growing up?"

"How has this affected your ideas about your progress in comparison to that of your classmates?"

"Could you describe what changes you have noticed in how you feel about your studies, now you are underway?"

The study's design and combination of questions was considered appropriate for building a rapport with the participant and encouraging them to share accounts and experiences. Once all interviews were completed, a thematic analysis could be carried out on this material in order to determine any patterns highlighting occasions

where individuals engaged in positive, academically sustaining experiences, thereby supporting development of Academic Sustainance.

4.4.9 Interview organisation: locations and arrangements

The interviews were planned in two ways, depending on whether they were taking place face-to-face or by telephone. If a face-to-face meeting was scheduled, the participant was asked to choose from any of the Waratah State* university campuses. They were also asked to indicate their time and date preference from a series of time slots. In this way, as Walliman (2008, pg. 285) suggests, participants felt they had control and input into the process and therefore were more inclined to active participation.

If the interview were taking place by telephone, the participant was invited to nominate a preferred time and date and telephone number by which to call at the scheduled time. Phone interviews were also set for 40 – 60 minutes. Respondents were reminded that as agreed to in the consent form, the call would be recorded and would be conducted on speakerphone to facilitate the recording. It was also recommended to choose a quiet place in which to conduct the interview, firstly for their own comfort for conversational purposes and secondly, as overly noisy locations would compromise the audio fidelity of the recording and subsequent transcript. The additional consent form for the interview was emailed two days prior to the scheduled time; participants thus had time to return it by email prior to the commencement of the session.

4.4.10 Interview structure

The interviews were organised into three sections. The interview commenced by asking the respondent to clarify particulars on the original consent form, completed at their EPP session in February. This permitted supplementary details about the individual's background to be furnished and allowed for a smoother transition into the next section of the interview, which discussed the particular responses given to the 24 questions in the ABC scale questionnaire.

The opportunity for opening out responses to these questions allowed respondents greater scope to discuss their beliefs, aspirations and concerns regarding their studies and how they viewed their progress thus far. The final section of the interview asked questions about previous academic experiences and asked the respondent to compare those with their current experiences. Respondents were also asked to pinpoint the traits or characteristics of confidence and how they saw themselves by contrast.

At the conclusion of the interview, as a token of appreciation, each participant was presented with an AUD\$20 (equivalent to £11.80 at current rates of exchange) gift card from a popular on-line music company. Respondents were thanked for both their time and willingness to share their opinions and experiences. It was noted that respondents were both helpful and positive throughout the sessions. Where respondents were interviewed by telephone, in both cases the participants made contact again to offer their thanks and surprise on receipt of the gift card, which they had not expected to materialise.

4.4.11 Interview Ethics

Prior to the commencement of the interviews, interview ethics protocols were followed and respondents were asked to confirm their willingness to proceed both verbally and in writing, if not yet done. A preamble followed, where the interview structure was outlined and respondents were reminded that participation was voluntary and their permission and subsequent use of any material could be withdrawn at any time without prejudice.

Care was taken in interviews in listening and establishing a connection with the participant by offering personal stories about studying and being a student herself. Attention was paid to not offer unnecessary comments or discussion, so as to maintain a neutral power ratio. It was noted that several respondents appeared nervous so more time was spent in the preliminary stages of the interview, asking very general questions and allowing the participant to gain a level of comfort with the process.

Some respondents were concerned with their language skills; reassurances were made to indicate that there were no issues with understanding their responses.

As the survey was investigating different levels of Academic Confidence based on their survey results, in the final stages of each interview, participants were asked if they thought they could predict, from a scale of High to Low, High being Very Confident, whereas Low was Not Confident at all, their level of Academic Confidence, based on their survey result. Interestingly, almost all participants were able to ascertain this quite accurately. Two participants considered their level might be Low, when their recorded level was Mid. No comments were made to interviewees about their actual level, other than to indicate the accuracy of their prediction.

4.4.12 Notes and transcripts

Transcripts of each interview were produced as Word documents and stored with the handwritten notes taken throughout each interview. At the conclusion of each interview, respondents were asked if they would like a copy of the transcript content to read and comment on later. All declined the offer, however several respondents expressed an interest in reading the thesis once completed.

4.4.13 Thematic Analysis

A thematic analysis of the interview data was conducted in order to establish patterns indicating possible components of Academic Sustenance. As proposed in Chapter 2, Figure 2.1, it was suggested that Academic Sustenance had several inter-related facets, self-efficacy, determination, resilience and stamina. In order to establish how Academic Sustenance might be generated, the analysis considered each of the four facets. Self-efficacy for example, relates to positive experiences, underscoring the belief that continuing effort leads to achievement of goals. Analysis of the interview data further proposed that positive experiences might be built through support and encouragement, suggesting that peer and parental reinforce long term, sustaining experiences, which help develop Academic Sustenance. Another of the facets, resilience, considered the ability to adapt and recover when facing

challenges, is also related to encouragement and support. The elements of stamina and determination are associated with stability of habits and the ability to effectively organise both time and workload requirements. Each of the components was broken down further to reveal a clearer understanding of the effect of each. As a result, the model was revised and refined and is presented and discussed in Chapter 5.

The following sections of the discussion are concerned with the interview respondents. In order to allow a clearer sense of each, details are given of their backgrounds

4.5 Interviewees

Each interviewee’s OAC ranking of High, Mid or Low is indicated in brackets immediately following their name: Name* (H). Table 4.6 illustrates the distribution of participants according to gender and OAC rating. As detailed in Chapter 3, section 3.8.2, respondent names are pseudonyms in order to maintain confidentiality. Background details retain aspects of their respective details but identifying information was been redacted or changed for discretion.

Table 4.6 Interview participants based on OAC ranking and Gender

Gender	Overall Academic Confidence Ranking		
	High	Mid	Low
Female	Neesa A* (H)	Caroline A* (H)	Lisa C* (H)
	Elaine K* (H)	Peng Siu P* (I)	Marion C* (H)
	Helen A* (H)	Pamela R* (H)	Patricia L* (H)
	Valerie Y* (I)		
	Deidra V* (H)		
Male	Manuel P* (I)	Kevin R* (H)	David B* (H)
	Simon J* (H)		

Table 4.7 indicates the distribution of other influences identified in the factor analysis as having an effect on OAC. To recap, the variable of ‘Age’ was defined as belonging to either of two groups, under 22 years of age and over 25 years of age (please refer to Chapter 5, section 5.11.2, along with Table 5.11 and Figure 5.15 for specifics); ‘FGU’ was drawn from the original consent form, indicating a First

Generation university student; 'SEN' was also identified from the consent form indicating the requirement for Special Educational Needs.

Table 4.7 Influences affecting Overall Academic Confidence

OAC Rating	Participant	Additional Influences on OAC		
		'Age'	'FGU'	'SEN'
High	Neesa A*	No	No	No
	Elaine K*	Yes	Yes	No
	Helen A*	Yes	No	No
	Valerie Y*	Yes	No	No
	Deidra V*	Yes	Yes	No
	Manuel P*	No	Yes	No
	Simon J*	Yes	Yes	No
Mid	Caroline A*	Yes	Yes	No
	Peng Siu*	No	No	No
	Pamela R*	No	Yes	No
	Kevin R*	Yes	No	No
Low	Lisa C*	No	Yes	No
	Marion C*	Yes	No	Yes
	Patricia L*	Yes	Yes	No
	David B*	Yes	Yes	No

As the sample encompassed respondents with a range of age groups and different academic recency, the following section provides background details of the fifteen interview participants arranged by gender, beginning with the students reporting High overall Academic Confidence. Each respondent is designated with his or her OAC score, gender and student status. Their GPA score is included as relative to performance and confidence, for discussion later in the thesis.

The pen portraits begin with the students reporting High OAC. These are Neesa A*, Elaine K*, Helen A*, Valerie Y*, Deidra V*, Manuel P* and Simon J*. The next group are those students reporting Mid OAC. These are Caroline A*, Peng Siu*, Pamela R* and Kevin R*. The students reporting Low OAC are Lisa C*, Marion C*, Patricia L* and David B*.

4.5.1 Students reporting High OAC

1. Neesa A*: OAC score: 4.2 (High)

Female, Home

GPA: 3.90

Neesa was a re-entry student, band 3 age-bracket. She was born in Australia of South East Asian parents, who themselves had travelled to Australia under hazardous conditions, part of a wave of SE Asian migration in the early 1960's. This group held exceptionally high views of the benefits of education thus Neesa A* and her siblings were encouraged to achieve their utmost during their educational years in order to maximise potential career opportunities. Due to her work commitments, Neesa was pursuing her studies part time.

Neesa A* was determined to gain as much as she can from her university studies: due to a sudden loss in her immediate family during her final year of high school, her overall results were not as good as she wanted. Through her current employment, an alternative pathway was available for achieving her academic goals. The overall impression was of a thoughtful, determined and enterprising personality.

Neesa A* had created an on-line study group who connected through one of the major social media networks. She moderated this site and found it helpful in sharing thoughts on what was being discussed in the course material as well as seeking clarification on unfamiliar or difficult concepts.

2. Elaine K*: OAC score: 4.2 (High)

Female, Home

GPA: 3.82

Elaine K* was a re-entry student, band 5 age-bracket. She was the first in her immediate and extended family to attend university. She was studying externally as she worked full time. Elaine K*'s primary reason for seeking a university degree was to move to the next level in her profession in health care. She held very strong principles towards working and was firm in her belief that reward would be achieved through effort. She was equally determined to achieve high results through her efforts. Elaine K* was also aware that as a re-entry student, the example she set for her young family was valuable in encouraging them to see that establishing and achieving goals was important and that the time to realize such goals could be at any stage of one's life.

As an external student her interaction with her classmates was purely electronic. She reported a strong sense of accomplishment, as she was regularly the first one in her class to post responses to tutorial work or pose questions about course material or assessment work. Although academic work was a different environment, she saw it as just one more challenge and was optimistic that she would achieve her goals.

3. Helen A*: OAC score 4.75 (High)

Female, Home

GPA: 3.93

Helen A* was a re-entry student band 7 age bracket. Born in Scotland, she was educated in both the UK and Europe because of her father's military service. Later immigrating with her parents to Australia, she also undertook some of her secondary education in Australia.

Helen A* had a pragmatic approach to her studies and although undertaking her degree at a more advanced age than her classmates, she was firm in her beliefs that her life skills equipped her well for dealing with the different demands of academic work. She attributed her practical grasp of matters to the influence of military upbringing, especially in organising and preparation, which were extremely important to her. Her observations of her classmates in group-work underscored her opinions of their different approach and why her Academic Confidence was strong in comparison to those more familiar with academic undertakings.

4. Valerie Y*: OAC score 4.6 (High),

Female, International

GPA: 4.2

Valerie Y* was a re-entry student, band 6 age-bracket. Born and educated in South East Asia, she completed her primary education and then moved to Canada and subsequently to Australia. Currently studying externally, her contact with classmates was confined to electronic interactions via the course web pages. That notwithstanding, she was proactive in establishing connections with several classmates, with whom she maintained regular contact for discussion of course work and reading topics.

Valerie Y* attributed her high level of confidence to being organised and efficient in setting a work schedule. Undertaking a health care degree, she had a well-developed sense of the importance for time management. Her perceptions of prioritising and goal setting were intrinsic to her strategy of how she would achieve her objectives. Indeed her reflections of how she approached her goals and how she differed from her classmates in that regard were thoughtful and mature.

5. Deidra V*: OAC score 4.25 (High)

Female, Home

GPA: 3.92

Deidra was a re-entry student, band 6-age bracket. She was born in the UK. However, the majority of her education was undertaken in Australia as aged approximately four years of age, she immigrated to Australia with her parents. As this information emerged in the interview, it was necessary to re-classify her in the main study data and subsequent analysis.

At the time of her interview in April 2013, she was studying three subjects (a full course load) and working part time. She lived some distance from campus so attending morning lectures was difficult; hence her low response to the time management related questions in the survey instrument. Partway into the taught phase of classes, Deidra V* decided to switch to an external mode of study. At the time of interview, she had just begun the transition to external so was struggling to catch up with the requirements of forum participation, weekly upload of tutorial contributions and the method of podcast lecture delivery.

6. Manuel P*: OAC score of 4.75 (High)

Male, international

GPA: 3.38

Manuel P* was a direct entry student, band 2 age-bracket. He was born in a conflicted African state and whilst a toddler, fled with his parents and siblings to a neighbouring country where the family lived in a refugee camp for over a decade. His linguistic skills are extensive, speaking four languages including English, which he learned on his arrival in Australia in his early teens. He and his younger siblings were granted refugee status as part of humanitarian aid. Manuel P* has had no contact with either his parents or other adult family members since taking up residence in Australia. He was the first to attend University in his family.

Manuel P*'s perception of his Academic Confidence is robust; in discussion, he attributes this the result of having overcome many adversities throughout his life. He is focused on the opportunities to be gained through education and is keen to put into practice the professional qualifications he wishes to achieve. He is enrolled in a double degree, with a view to returning to his birth country as an aid worker.

Manuel P* was firm in his belief that clarity of understanding was imperative. He would discuss with his friends the topics he was studying and what the key ideas might be. This discussion was very helpful as he enjoyed giving his opinion in tutorials and being prepared for such sessions was an important aspect of his university studies.

7. Simon J*: OAC score 4.20 (High)

Male, Home

GPA: 3.71

Simon J* was a re-entry student, band 4 age-bracket. He was born in Australia of European parents. Part of his primary education was undertaken in both Australia and in his parents' originating country, his family having re-located for an extended time to cope with family difficulties. This dual education gave him quite an individual perspective of his abilities and his subsequent academic endeavours.

Studying part time whilst holding down a full time job, Simon J*'s views were definite regarding the challenges of taking three courses (constituting a full load) whilst working full time and maintaining his unquestionably high level of confidence. Simon J* took pains to convey the level of importance he gave to achieving his goals of successfully completing his studies and the associated long term benefits of potential career options. He was also keen to demonstrate a good work ethic to his young family and was conscious of the responsibility he demonstrated regarding setting goals at any stage of one's life.

Simon had formed a study group who met regularly in order to discuss the material being read each week and to prepare discussion points for lectures and tutorial work. He enjoyed this aspect of academic life and considered it an intrinsic part of the university experience.

4.5.2 Students reporting Mid OAC

8. Caroline A*: OAC score 3.66 (Mid)

Female, Home

GPA: 3.07

Caroline A* was a re-entry student, band 5 age bracket. Born in the UK, she immigrated with her parents to Australia at age 5 so almost all of her education was undertaken in Australia. Both parents were professional educators; her father was a secondary school teacher and her mother a kindergarten teacher. Her father's work dictated their living and as a result, the majority of her education was in rural and remote areas due to the schools to which he was assigned.

First to attend university in her family and based partly of her parent's recollections, although neither had attended university themselves, Caroline A* admitted she had an idealised image of what university life might entail. Caroline A* had struggled with this preconception, finding it was not the convivial place of learning she had envisaged. Although she had met people in her program during Orientation, she had not realised that different timetables for different programs would mean they were not studying together throughout the semester. She expressed disappointment that she had not been able to make friends and form connections as she had imagined.

Similarly she struggled with the computer literacy demands of electronic submission and word-processed assignments; as re-entry student she had been unaware of the shift from handwritten to computer generated work; describing this as needing a steep learning curve to overcome. This had caused some problems in group based projects, as she expressed her frustrations at what she saw as disadvantages amongst her younger classmates. Life experiences had affected her perceptions and this was indicated in her responses to confidence and how she saw her capabilities.

9. Peng Siu P*: OAC score 3.41 (Mid)

Female, International

GPA: 3.38

Peng Siu P* was a direct entry student, band 2 age-bracket. Educated in South East Asia, she came to Australia to undertake tertiary studies in health care. Initially studying Certificate courses with another education provider; she then advanced to a degree program with the current university.

Peng Siu P* struggled with the literacy demands of academia, attributing her lower responses to her doubts in her ability to maintain a consistent standard of work. Her previous experiences had been highly structured and tightly directed; this was at odds with the more self-directed responsibilities of HE for students in Australia.

Although her work was meeting academic expectations, she was concerned at the variances from her previous experiences in arenas such as tutorials and discussion groups where differences of opinion and individual interpretation of discussion material were encouraged. Interestingly, she was sufficiently reflective in being able to identify aspects of her personality that disadvantaged her in such situations but felt there were few proactive steps she could take in order to change the balance. She was not in a study group.

10. Pamela R*: OAC score 3.91 (Mid)

Female, Home

GPA: 3.41

Pamela R was a re-entry, band 2 age-bracket student. She had worked full time for several years after completing secondary school, before deciding to pursue a specific career in health services requiring a bachelor degree. Although a band 2 age bracket, she viewed herself differently from her slightly younger classmates, considering them as less focused than herself. She was part of a small, close-knit study group, which she found helpful in discussing and sharing ideas about course work and reading.

First in her family to attend university, she met with some initial resistance from her family, who were concerned at that her less than remarkable secondary school results would be detrimental to achieving her academic (and subsequent career) aspirations. However, she found a new sense of purpose and direction, particularly with the study group, who looked to her as a motivator and leader.

11. Kevin R*: OAC score 3.74 (Mid)

Male, Home

GPA: 3.29

Kevin R* was a re-entry student, band 3 age bracket. He was born in Australia of UK born parents, who immigrated with his older siblings prior to his birth. He was educated in a private Australian school (equivalent to UK Public school). He was more sport orientated than academically inclined and had some thoughtful reflections of how his time at school might have been better utilized.

Kevin R*'s perceptions of his academic abilities and confidence in those abilities varied substantially from the initial survey data collection in February 2013, to the time of interview; an interval of two months. He was candid in his comments that he was very anxious prior to the commencement of the taught phase of university and had requested and received professional guidance. Now he was more settled and familiar with the requirements and on reflection, quite rueful at his initial trepidation. Indeed, the second data collection at the end of semester 1 in June 2013 showed this to be accurate, as his overall Academic Confidence score had increased. Kevin also found himself as the axis of a study group; his position in his words as: 'the go-to-answer-guy' was both an amusing and surprising development for someone who had sought counselling in order to cope with the demands of study.

4.5.3 Students reporting Low OAC

12. Lisa C*: OAC score: 2.79 (Low)

Female, Home

GPA: 3.79

Lisa C* was a re-entry student, band 1 age-bracket. She was also the first in her family to attend University. Previously registered with another University in a different program, she had elected to enrol in her current program after recognising that both her interests and skills were in a different arena. Lisa C* described herself as somewhat anxious, particularly in discussing her responses to the survey instrument's questions relating to verbal contributions either in class with a lecturer present or with classmates, discussing course material.

Her primary school education had been initially troubled, which led to her dropping out and working full time for several years; however, due to the influence of a faculty member she described as a "mentor", she was able to refocus her efforts and gain a place at University. Being in the band 1 age group, she felt a sense of connection to her classmates who had come directly from high school. However, her work experience had also allowed her to gain a greater appreciation of how theory and practice overlapped. This sense of maturity was contrasted with the anxiousness she felt in having to 'deliver' on the expectations of significant others.

Lisa C* also found herself at the centre of a study group who looked to her as the group motivator. She attributed this to her previous work experiences, which gave her a greater sense of understanding time management and organisational ability. Lisa C* found she would organise the group's study schedule and priorities; a role which she described as unexpected and oddly satisfying, given her previous academic experiences.

13. Marion C*: OAC score of 2.41 (Low)

Female, Home

GPA: 2.43

Marion C* was a re-entry student, band 7 age-bracket. Marion C*'s early childhood education was splintered as her parents travelled extensively throughout Australia due to employment demands. On several occasions she was pulled from school without notice as the family relocated from one side of the country to another – a distance of over one thousand kilometres in some cases. These lengthy journeys took many months and much of her formative school years were lost. As a result, her perception of her academic abilities was quite low. A main concern was in keeping up with younger classmates and being able to maintain an appropriate academic standard.

Marion C* was somewhat wistful in hoping that she would have established a network from which she could draw strength and reassurance about her work. As her family was in another state of Australia, she did not have an immediate physical circle of friends or acquaintances.

14. Patricia L*: OAC 2.45 (Low)

Female, Home

GPA: 3.90

Patricia L* was a re-entry student, band 5 age-bracket. She was working full time and studying part time, with the objective of obtaining an academic qualification to enable to make a major career change. First in her family to attend University, she had concerns over the process of presenting academic work. As the survey instrument was administered prior to the commencement of taught classes, her responses reflected her uncertainty of these aspects. Interviewed near the end of her first semester, she reported that these concerns were mostly unfounded, as she had formulated an approach both satisfying her desire to meet her performance goals and allowing her to develop new skills in writing and critical thinking.

She was a member of a small study group, who also socialised infrequently outside of University. This had been beneficial in assisting her to understand her own abilities and to assess where her performance fitted, in comparison to her younger classmates.

15. David B*: OAC score: 2.79 (Low)

Male, Home

GPA: 4.20

David B* was a re-entry student, band 5 age-bracket. He was the first in his family to attend University. Rurally educated (in non-metropolitan schools), he currently resides in a remote location in Australia with his young family. Studying externally, his opinions on being confident and assertive enough to follow a long held career-based desire are both thoughtful and pensive.

David B* was direct in his assessment of the technology based requirements of his studies. Living where he did, connectivity was somewhat erratic, so he preferred to work by himself and draw on his immediate family as sounding boards for discussion. In several instances he expressed his desire to be sure of his facts or information before contributing to discussion forums. David B*'s apprehension in being found as not on par with his peers was evident, when considering his observations in response to questions about his Academic Confidence.

4.6 Final data collection phase: GPA scores

In the Australian academic year, the end of the equivalent of the UK Michaelmas term falls in June, which is winter, due to reversed seasons in the Southern hemisphere. Thus in June 2014, all study respondents' Grade Point Average (GPA) scores were collected, preparatory for inferential analysis using SPSS. This was 12 months after completion of both the data collection and interview phases of the Main study, which were completed in June 2013.

GPA scores were used as an indicator of actual performance, in contrast with the ABC scale, which gave an Overall Academic Confidence (OAC) score based on a respondents' perception of ability. It was speculated that students with high levels of OAC might have performance scores reflecting their anticipated performance. Subsequently, students with a different level of OAC might have a GPA reflecting their lower perception of ability.

Sander (2009, pg. 35) determined that there was a correlation between anticipated and actual performance in the study conducted using the ABC scale in 2003. However participants in that study consisted of both health care and medical students; it was suggested that the high performance criteria required for admission into such demanding programs implied elevated levels of Academic Confidence from the outset. This may have skewed the data to a more optimistic outlook.

As this study drew from a sample of commencing undergraduate students from a variety of programs, the likelihood of data with an overly optimistic view as in Sander's 2003 study was discounted. Results and findings of the factor analysis of the quantitative data and the thematic analysis of the interview data are discussed in Chapters' 5 and 6.

4.7 Overall reflections on study's design and method

The difference of participation numbers between the Pilot study and the Main Study, conducted six months apart was interesting and demonstrated the importance of ensuring that participants, both intended and peripheral, understood

the objectives and intentions of the research project. The primary phase of the study began therefore with a reconsideration of documentation, timing and explanatory comments.

The recognition that time was critical to the success of any data collection process was crucial to improved administration. The Pilot study demonstrated the necessity for a sufficient timeframe so as to allow participants enough time to read and understand the information packs, therefore improving comprehension of the project and its relevance to them, resulting in improved probability of involvement.

Being on hand to respond to queries was also essential. Data collection from the pilot study revealed that a number of respondents were uncertain of how to answer as to their educational background if, for example they had a combination of primary schooling in a rural area and secondary schooling in a metropolitan area. Respondents who identified themselves as internationally educated also queried if their response should indicate both rural and international aspects of schooling. This aspect of student status was a possible indicator for Academic Sustenance; the relationship between it and Academic Confidence are discussed in Chapter's 6 and 7.

4.8 Limitations

The study design and administration issues have been addressed in earlier sections of this chapter. The following section addresses the sampling design for selection of interview participants.

4.8.1 Interview sample

The interview sample was designed to encompass twenty-five participants, equivalent to 10% of the Main Study (n=255). Of those selected as described in section 4.4.2, fifteen agreed to participate in the interview phase. Of those fifteen, the distribution was eleven females and four males. This sample's gender imbalance is recognised and it is also acknowledged that inferences drawn about gender may not be as robust as other assertions from the data because of this strong female presence. It is not understood why fewer males agreed to interviews than their female

counterparts. This possibility will need to be considered for future studies in order to obtain a more balanced sample and an even-handed range of opinions.

4.9 Summary

This chapter has laid out the methods by which the study's data collection was managed and administered, beginning with its design as a narrative inquiry with thematic analysis, supported by quantitative data. The two phases of the study, the quantitative phase consisting two data collection intervals in 2012 and 2013 were outlined, along with reflections of both their successful and less successful aspects. The decision to merge the data collected in the two intervals was discussed and a justification given. The qualitative phase of the study, which took place in April 2013, was discussed; its structure, scheduling, documentation, participant demographics, question design, logistics, limitations and ethical considerations were detailed and each aspect considered.

The final phase of data collection, which took place in mid 2014, consisted of collating all study respondents' grade point average (GPA) scores in order to determine if there was a relationship between actual performance, as indicated by GPA scores and Overall Academic Confidence (OAC), as indicated by the ABC scale.

As discussed in Chapter 2, being that Academic Confidence bridges the pillars of self-efficacy and self-concept; in essence, a way in which to ascertain how someone considers their likelihood of success when undertaking academic tasks, such as producing course work at the required level or planning effective revision schedules for examinations, it was necessary to understand whether a relationship between actual performance and predicted ability could be identified. The results of this are discussed in Chapter 5, section 5.21.

4.10 Final thoughts

As clarified in the literature review in Chapter 2, Academic Confidence relates to the psychology of learning literature. Baumeister *et al.* (2003, pg. 2) maintains that people's beliefs shape their actions in many important ways and these actions in turn

shape their social reality and the social realities of the people around them. Therefore if, as it is argued, Academic Confidence has a positive relationship to self-esteem, then students who demonstrate high levels can be predicted to do well in their courses. Correspondingly, those students with lower reported levels of Academic Confidence would do less well. If those doing well have similar characteristics, these may indicate the benefits of sustaining experiences as the result of Academic Sustenance. Correspondingly, if those students doing less well than their classmates with similar characteristics, reported different past academic experiences, it could indicate a lack of opportunities for developing Academic Sustenance.

The following chapter presents the results of both the quantitative and qualitative analysis. Both sets of results are discussed and considered in Chapter 6, relative to the research questions framing this thesis.

Chapter 5 Results

5.1 Overview

As stated in Chapter 1, the objective of this thesis was to consider the concept of Academic Sustenance and its relationship to that of Academic Confidence, that is, the way in which students differ in the manner they anticipate and respond to the demands of studying, through development of positive, Sustenance supported experiences. Subsequent different levels of Academic Confidence might depend on or be influenced by such experiences, shaping perceptions of ability when faced with academic challenges. Earlier chapters presented the theoretical framework and approach for the study, whilst the previous chapter presented the methods implemented for data collection.

In order to understand this relationship, it was necessary to determine three things. First, if students did have different levels of Academic Confidence. Secondly, how might those levels be considered within the notion of Academic Sustenance? Lastly, the way in which recurring patterns might indicate circumstances or opportunities through which Academic Sustenance could be developed. This chapter therefore presents the results of the quantitative analysis for the sample of 255 students who took part in the study by completing the Academic Behavioural Confidence (ABC) survey (see Appendix F for an example of this instrument).

Whilst the quantitative data is presented first, it is done to provide the reader with a contextual basis for consideration of the qualitative data, which is presented from section 5.11 onwards. The quantitative data, providing as it does an overview of the student population gives a background to set the interview data against. Taken together, the two sets of data start to generate the potential relationship between positive academic sustenance and academic behavioural confidence.

As discussed in Chapter 4, Section 4.3.8, the results presented in this chapter consider the aggregated sample of 255 respondents from the Pilot and Main study,

after invalid responses were removed. The sub-scales of items will also be presented, as these are relevant to individual aspects of educational experiences. Excerpts of the results from the Pilot Study of item analysis may be seen in Appendix G, as illustrative of the approach used for the exploratory factor analysis (EFA).

Having presented the quantitative data as a means of establishing the global picture, the four key themes emerging from the thematic analysis will be presented and considered in the light of existing literature to probe the potential relationship between an individuals' past educational experiences, as they build academic sustenance, and their levels of academic confidence. The chapter then explores the relationship between a number of key independent variables and academic confidence, such as Student Status (SSt), Special Educational Needs (SEN), Age, Gender and First Generation University Student (FGS). The reader should note that the term 'Student Status' denotes a student's fee status. Home students were considered as those paying local, residential fees and as such, were likely to have the majority of their education in Australia. International students on the other hand, were paying different fees for their study programs and therefore, were likely to have undertaken the majority of their education outside of Australia. This distinction was realistic in determining if as discussed in Chapter 2, section 2.18.1, prior academic backgrounds did have some influence on academic confidence.

Both significant results and results approaching trends towards significance are presented in this chapter because of what the findings suggest about academic confidence and how students might consequently perceive their abilities with regard to their studies. The quantitative data gives the overview of the sample and provides a contextualisation for the qualitative results presented in Section 5.11.

5.2 Initial examination: Overall Academic Confidence

The analysis began with determining the overall confidence of the sample. As initial findings suggested that by aggregating all 24 items in the survey instrument to produce an overall tally, the possibility of a single score representing Overall Academic

Confidence (OAC) could be calculated. This appeared to have strong psychometric properties with a normal distribution. The distribution is illustrated in Figure 5.1.

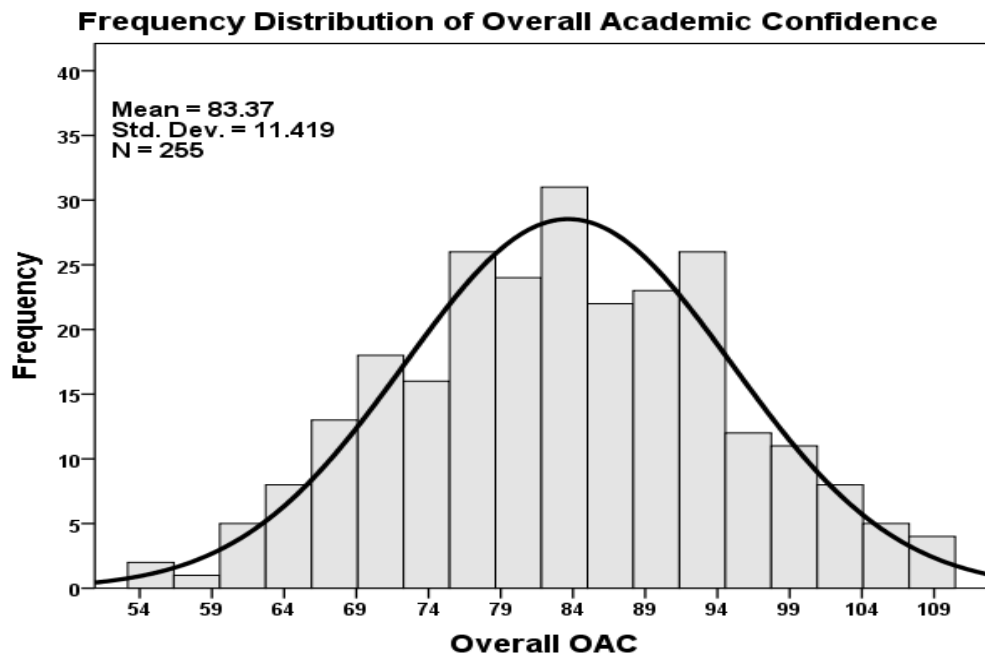


Figure 5.1 Overall Academic Confidence (OAC) score of the sample

The mean was 83.37, with a SD of 11.41. The Kurtosis was -.39 and Skewness was -.04. The minimum score recorded was 54 and the maximum was 110. The frequency distribution suggests if a natural middle point can be defined as 72 (24x3) then 81% of the sample indicated a level of confidence above this point.

The OAC score was then used to classify respondents as High, Mid or Low, based on their overall response score. As the mid point of the scale was 3, it was decided to classify students under 3 on the OAC score as “Low”. Students whose score was between 3.0 and 3.9 were classified as “Mid”. All students over 3.9 were classified as “High”. The data is illustrated in Table 5.1.

To recap, the ABC scale consisted of twenty-four items arranged in a Likert scale of 5-1, 5 being “Very confident” and 1 being “Not At All confident” (see Chapter 3

section 3.6.1 (D), Respondents were asked to indicate their perception of confidence in performing various academic tasks, such as preparing a revision schedule for a subject or answering questions from a lecturer in front of a crowded lecture theatre.

Table 5.1 Overall Academic Confidence classification data

OAC Range	Classification	Males	Females	Number
1.0 - 2.9	Low	8 (7.5%)	18 (12.2%)	26
3.0 - 3.9	Mid	66 (61.7%)	99 (69.9%)	165
4.0 – 5.0	High	33 (30.8%)	31 (20.9%)	64
	TOTAL	107	148	255

Note: OAC Score range is based on averaging all 24 items in the ABC survey

The OAC score allowed for investigation into patterns, which could differentiate between students with different levels of confidence in their academic undertakings. Initial influences on OAC such as Gender or Student Status were considered and a 2x2 ANOVA with these as independent variables was computed. There was no main effect however a significant interaction term was found, $F(1,250) = 6.2, p=.013$. The interaction indicates the strong effect of international females Overall Academic Confidence. This interaction is shown in Figure 5.2.

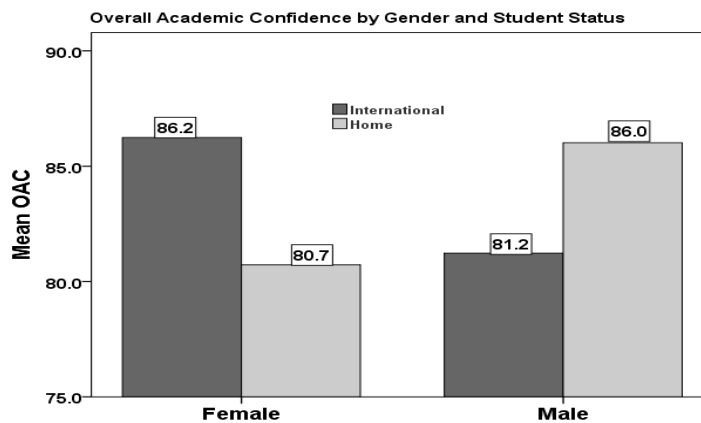


Figure 5.2 OAC according to Gender and Student status

5.3 Examination of Items

As the study was concerned with differences in levels of academic confidence between commencing students, an analysis was carried out in order to determine

where students might indicate differing levels of academic confidence. As the frequency distribution for OAC suggested a mostly positive sample, an analysis was carried out in order to determine which items respondents reported confidence levels above or below the natural middle point. The mid-point was three. Figure 5.3 illustrates the 24 items in the ABC survey instrument in ascending order of means.

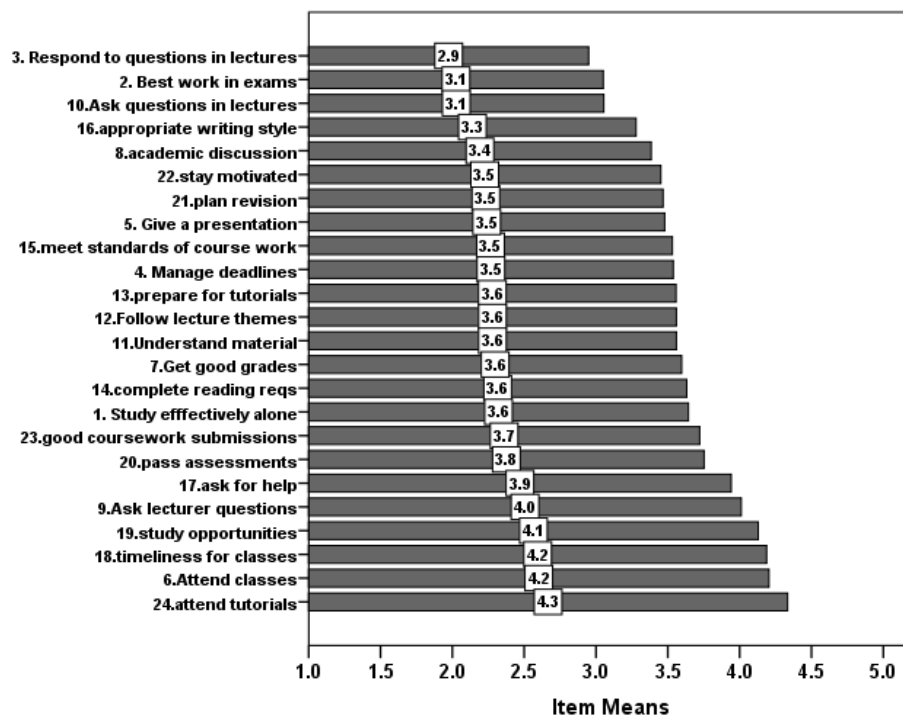


Figure 5.3 Item means in ascending order of positivity

Inspection of item means suggested students were least confident about responding to their lecturer in front of classmates. A principle component analysis (PCA) was conducted in accordance with current statistical methodology. Using the twenty-four items in the survey instrument an investigation was undertaken to determine what factors might exist which could be considered aspects of academic confidence. The factor analysis and scale development results are presented in Section 5.5.

5.4 Exploratory Analysis: Scale Development

An exploratory factor analysis was carried out and results from the preliminary rotation analysis suggested five factors based on the eigenvalue being

greater than 1. However, the fifth factor failed to elicit any strong loading on any one single item. Since the eigenvalue on the fifth factor was 1.1, it was decided not to pursue any further analysis with this factor. The issues concerned with determining the number of factors are discussed by Bandalos and Boehm-Kaufman (2009, see p. 61 especially).

Initial results showed that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .868. This value should be between .6 and 1. Bartlett’s Test of Sphericity also indicated that a factor analysis could proceed (Tabachnick & Fidell, 2007). Following on from the principal components analysis, the factor analysis was conducted using an Oblimin rotation. The four-factor resolution accounted for 56% of the variance. The eigenvalues and factor score correlations are shown in Table 5.2.

Table 5.2 Eigenvalues and factor score correlation

	Eigenvalue	Cumulative % variance	Correlation Matrix (Factor Scores)		
			Factor 2	Factor 3	Factor 4
Factor 1	7.73	32.2	-.16	.30	.33
Factor 2	2.3	41.7		-.16	-.21
Factor 3	2.0	50.2			.23
Factor 4	1.4	56.1			

Note: (a) $n = 255$ (b) Oblimin rotation converged in 22 rotations

This analysis indicted the existence of four coherent factors. Following inspection of how the items loaded on these factors, it was decided to label the factors based on the item’s thematic properties. The labels representing these four factors are shown in Table 5.3.

Table 5.3 Factors and their labels

Factor	Label
F1	Academic Performance
F2	Time Management
F3	Social Performance
F4	Workload Management

The specific factor loadings are presented in Table 5.4. It should be noted that (a) F1 represents Academic Performance, F2 represents Time Management, F3

represents Social Performance, and F4 represents Workload Management, (b) the figures represent loadings from Oblimin rotation, pattern matrix, which converged in 22 rotations and (c) loadings under .3 are suppressed.

Item 1 cross-loaded on F1 and F4. However, it was decided to include item 1 with Factor 4, as the item content was a better fit semantically with the theme of workload management. This theme reflected the concept of being able to manage the tangible coping requirements of academic study and timetable management.

Factor 1: (9 items, labelled Academic Performance), had the principal theme of how students approached their studies with the feeling that they would ultimately be successful. Factor 2: (3 items, labelled Time Management), had the underlying theme of how student approached the specific timeliness required to meet their academic deadlines. Factor 3: (6 items, labelled Social Performance), had a central theme concerned with how students related to both their peers and academic staff throughout their time in higher education. This referred to their belief in their ability to cope with the interpersonal demands of higher education. Factor 4: (6 items) as previously mentioned, was labelled Workload Management. Its primary theme was the way in which students undertook the specific tasks required for successfully managing their academic studies.

Table 5.4 Factor analysis table

Item	Question stem: "How confident are you that you can..."	Factor Loadings			
		F1	F2	F3	F4
20	Pass assessments at the first attempt	.83			
16	Write in an appropriate academic style	.75			
7	Attain good grades in your work	.68			
15	Produce course work at the desired standard	.62			
11	Understand the material outlined and discussed by you with lecturers	.52			
12	Follow the themes and debates in lectures	.51		.32	
4	Manage your workload to meet course deadlines	.50			.30
23	Produce your best work in course assignments	.43			.34
2	Produce your best work under examination conditions	.39			
6	Attend most taught sessions		-.83		
24	Attend tutorials		-.82		
18	Be on time for lectures		-.70		
10	Ask lecturers about questions they are teaching during a lecture			.85	
3	Respond to questions asked by lecturers in front of a full lecture theatre			.79	
8	Engage in profitable academic debate with your peers	.30		.66	
9	Ask lecturers about the material they are teaching in a one-to-one setting			.63	
5	Give a presentation to a small group of fellow students			.58	
17	Ask for help if you don't understand			.51	.40
14	Read the recommended background material				.68
13	Thoroughly prepare for tutorials				.65
22	Remain adequately motivated throughout				.60
21	Plan appropriate revision schedules				.57
19	Make the most of studying at university				.54
1	Study effectively in your own independent study	.47			.42

Note: loadings based on Oblimin rotation

5.5 Properties of the scales

It was decided to construct four scales following from the factor analysis. This was accomplished through aggregating the raw scores from the respective items to generate four scales, representing the four factors. Descriptive statistics for all four scales can be seen in Table 5.5.

The Academic Performance scale was generated through summing items 20, 16, 7, 15, 11, 12, 4, 23, and 2, across all individual respondents. The resulting score ranged from a possible 9 to 45, but the actual range was from 16 to 43, with a mean of 31.6.

The Time Management scale was generated through summing items 6, 24 and 18 across all individual respondents. The resulting score ranged from 3 to 15 with a mean of 12.73. The Social Performance score was generated by summing items 10,3, 8, 9, 5, and 17. The resulting score ranged from 7 to 30 with a mean of 20.8. The Workload Management score was generated through summing items 14, 13, 22, 21, 19 and 1, also across all individual respondents. The resulting score ranged from 10 to 25 with a mean of 18.2.

Table 5.5 Descriptive statistics for the four sub-scales

	Academic Performance	Time Management	Social Performance	Workload Management
Mean	31.59	12.73	20.82	18.24
Std. Deviation	5.08	2.24	4.26	3.16
Skewness	-.207	-1.219	-.229	-.136
Kurtosis	-.299	1.770	-.321	-.176
Minimum	16	3	7	10
Maximum	43	15	30	25

Histograms representing the resultant distribution of scores across the full sample are shown in Figures 5.4 to 5.7. In each figure, the natural middle point has been drawn as a reference line. The natural middle point represents the halfway point between the anchor points of “Very confident” and “Not at all confident”.

A person therefore, who continuously reported as uncertain or “3” on the five-point scale, would therefore sit on the natural middle point. It is interesting to note that in all the histograms, the majority of respondents were reporting above the natural middle point. This is not a limitation of the 5-point scale; it suggested the level of confidence expressed by participants was above the mid-point in most cases, indicating a general positivity. Figure 5.3 in Section 5.2 illustrated the confidence

means for each item in the survey instrument, in ascending order from lowest to highest, suggesting this trend of positivity.

5.6 Histograms of the Distribution of Scores of the Four Factors of Academic Confidence

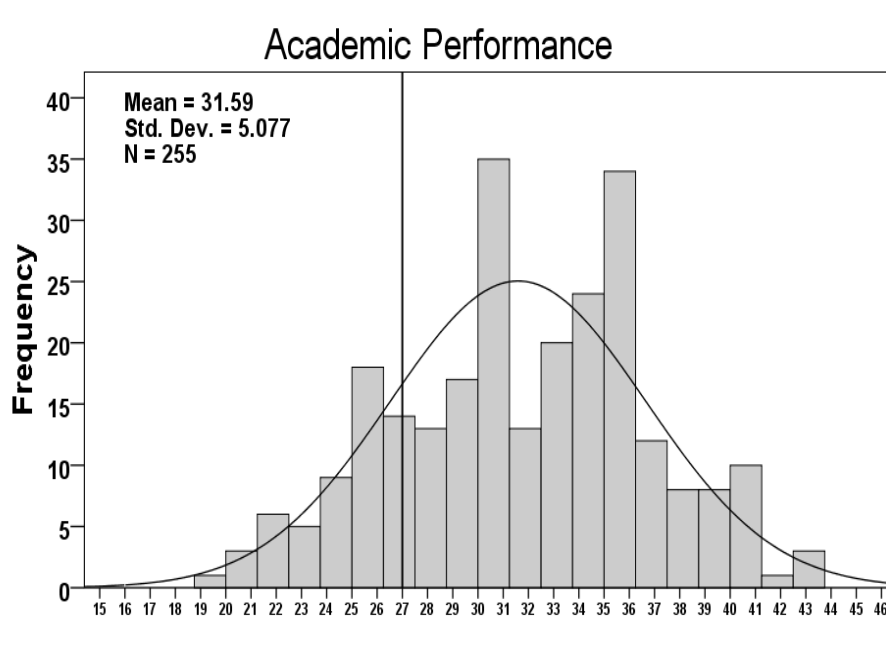


Figure 5.4 Histogram for sub-scale Academic Performance

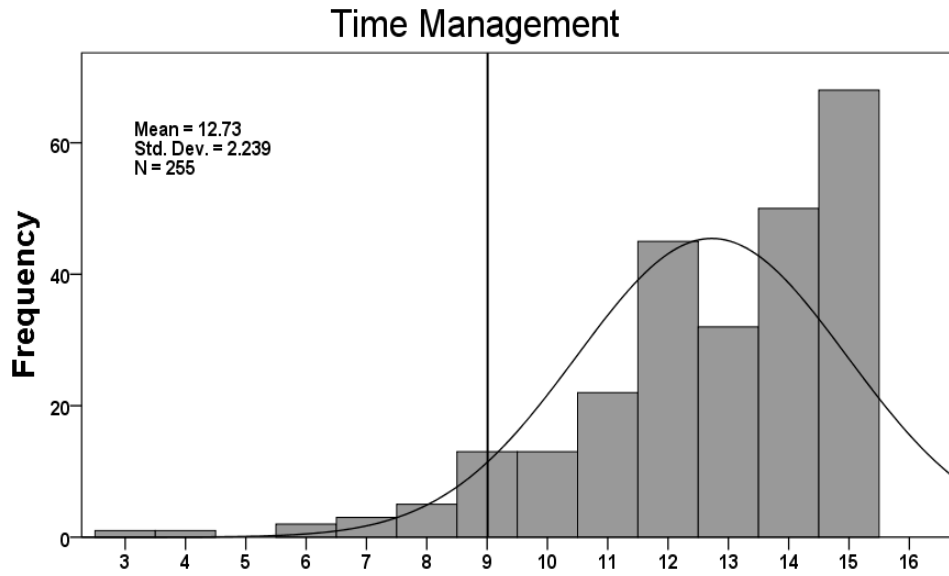


Figure 5.5 Histogram for sub-scale Time Management

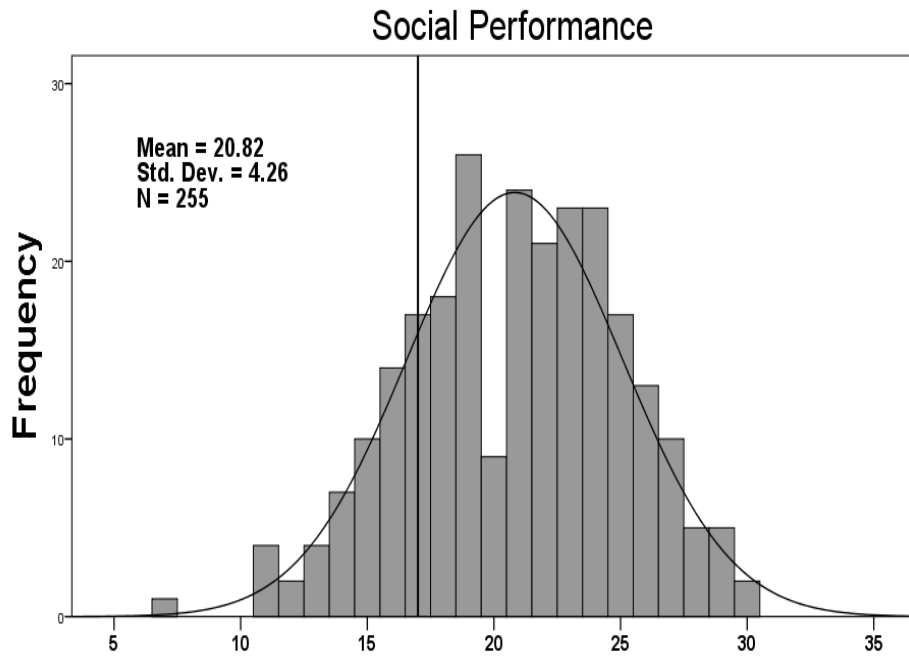


Figure 5.6 Histogram for sub-scale Social Performance

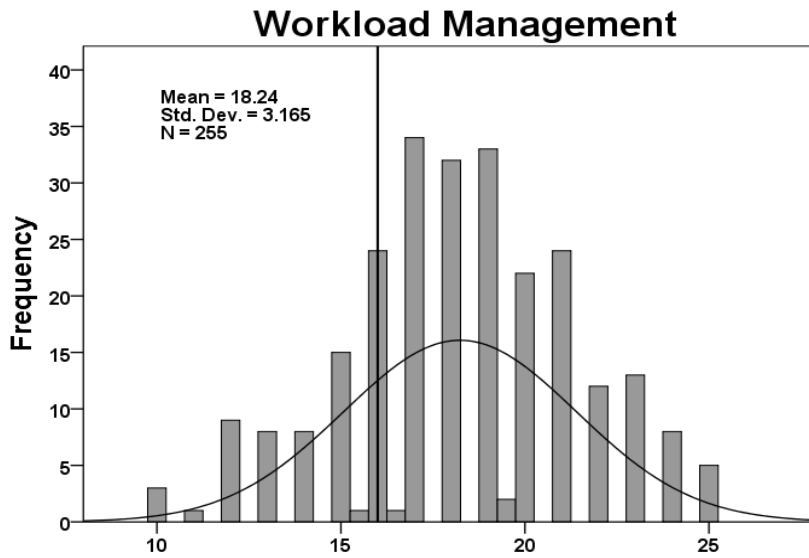


Figure 5.7 Histogram for sub-scale Workload Management

In addition to the descriptive data, the intercorrelations between the four scales are shown in Table 5.6. These values differ from the values shown in Table 5.1 as they are based on the aggregates of the items' raw scores. The values shown in Table 5.2 are based on the Oblimin factor scores.

Table 5.6 Intercorrelations of the four dependent variables

Variable	2	3	4
1. Academic Performance	.34**	.49**	.61**
2. Time Management		.26**	.45**
3. Social Performance			.42**
4. Workload Management			

Note: ** $p < .01$.

Despite the existence of the four-factor resolution, the possibility of a single variable resolution could be acknowledged, as indicated in Figure 5.1. This notion was investigated through aggregating all 24 items. Their tally disclosed a Cronbach's alpha internal reliability score of .903. In Table 5.7, it can be noted that every item is correlating strongly with the tally of the remaining items. The table indicates all 24 items contributing, in that deletion of any of the items would not enhance the Cronbach's coefficient. This suggests that it is meaningful to obtain a single score, which could represent "Overall Academic Confidence".

Hence, an Overall Academic Confidence (OAC) score was calculated and this was used as a classification index in conjunction with the interview data, which will be described in Section 5.11.

Table 5.7 Correlation of items: Cronbach's Alpha score

Item	Corrected item: Total Correlation	Cronbach's Alpha if item deleted
1. Study effectively alone	.429	.901
2. Best work in exams	.404	.902
3. Respond to questions in lectures	.452	.901
4. Manage deadlines	.555	.898
5. Give a presentation	.524	.899
6. Attend classes	.422	.901
7. Get good grades	.619	.897
8. Academic discussion	.545	.898
9. Ask lecturer questions	.469	.900
10. Ask questions in class	.398	.902
11. Understand material	.543	.899
12. Follow lecture themes	.531	.899
13. Prepare for tutorials	.599	.897
14. Complete reading requirements	.502	.899
15. Meet course work standards	.569	.901
16. Appropriate writing style	.496	.899
17. Ask for help	.481	.900
18. Timeliness for classes	.345	.903
19. Study opportunities	.592	.898
20. Pass assessments first time	.560	.898
21. Plan revision schedules	.509	.899
22. Stay motivated	.550	.898
23. Good coursework submissions	.622	.897
24. Attend tutorials	.483	.900

Note: Overall Alpha was .903

5.7 Examining the Four Factors of Academic Confidence

Having established the existence of these factors, as detailed in sections 5.3 through to 5.5, the analysis then looked at independent variables that might be associated with or linked to academic confidence. Chapter 2, section's 2.6 to 2.7 discussed the implications of prior academic backgrounds, gender, parental effects and past experiences and their links and effects on academic confidence. Following on from these analyses, the responses to individual items were examined and

supplementary analyses carried out to investigate the impact of age, gender, first generation university student (FGS), special educational needs (SEN) and student status (SSt). Student status is defined in Section 5.1 of this chapter.

The following analyses present the ANOVA results in relation to the four individual factors identified in the initial analysis: Time Management, Workload Management, Social Performance and Academic Performance.

5.7.1 Time Management

In examining the factor of time management, a 2x2 ANOVA was applied using gender and student status as independent variables. In this analysis no significant effects were obtained. The interaction term was approaching significance, $F(1,250) = 2.35, p = .127$. This trend is shown in Figure 5.8, which indicates the mean of Time Management as a function of gender and student status.

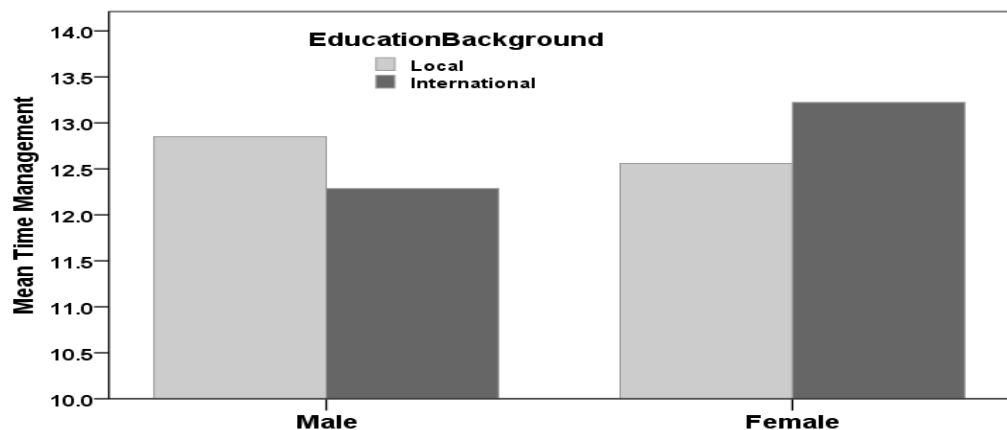


Figure 5.8 Mean time management: Academic confidence as a function of gender and student status.

5.7.2 Workload Management

The Workload Management data were analysed using a 2x2 ANOVA with gender and student status as independent variables. The effect for gender was not significant on an overall basis, $F(1,250) = 2.5, p = .11$. The interaction term was approaching significance, $F(1,250) = 3.16, p = .077$.

On probing this factor further, what became apparent was that whilst no overall effect of gender was noted, when home and international female were contrasted, different levels of academic confidence were demonstrated between home and international female students. International females reported higher levels of Workload Management confidence than their home counterparts, $F(1,145) = 6.9, p = .009$. The effect size was substantial, $d = .56$ (Cohen's d). On the other hand, no significant difference was apparent when home males were contrasted with their international male equivalents, $F < 1$. Figure 5.9 shows means for the Workload Management factor broken down by student status and gender.

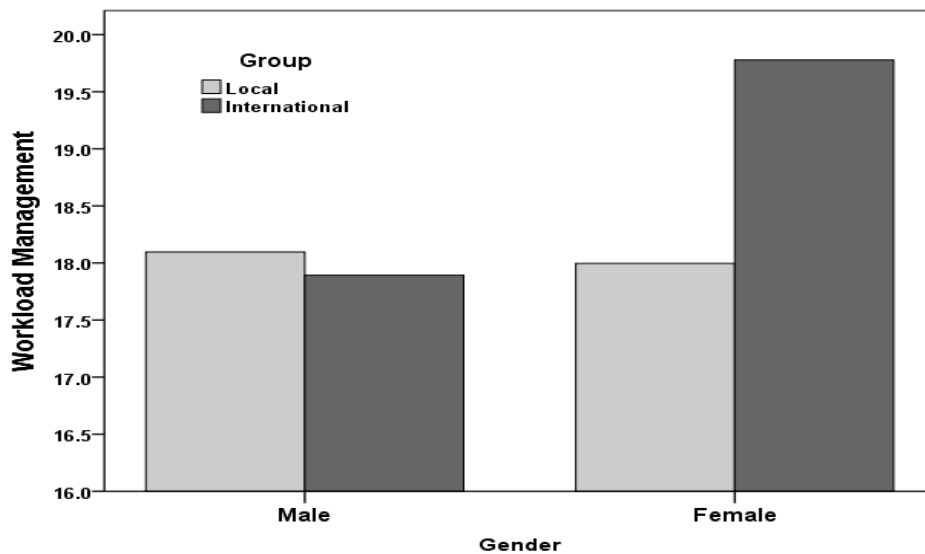


Figure 5.9 Mean workload management: Academic confidence as a function of gender and student status.

5.7.3 Social Performance

In examining Social Performance, a 2x2 ANOVA showed a significant main effect for gender, $F(1, 250)=7.11, p=.008$. The interaction term was also significant, $F(1,250)=3.87, p=.05$. The interaction is shown in Figure 5.10. It was also found in the case of male students, home males exhibited more confidence in their academic social performance than their international male counterparts. As Figure 5.10 depicts, international female students were more confident than their home female and international male classmates, but not more confident than home male students. This finding will be discussed further in Chapter 6.

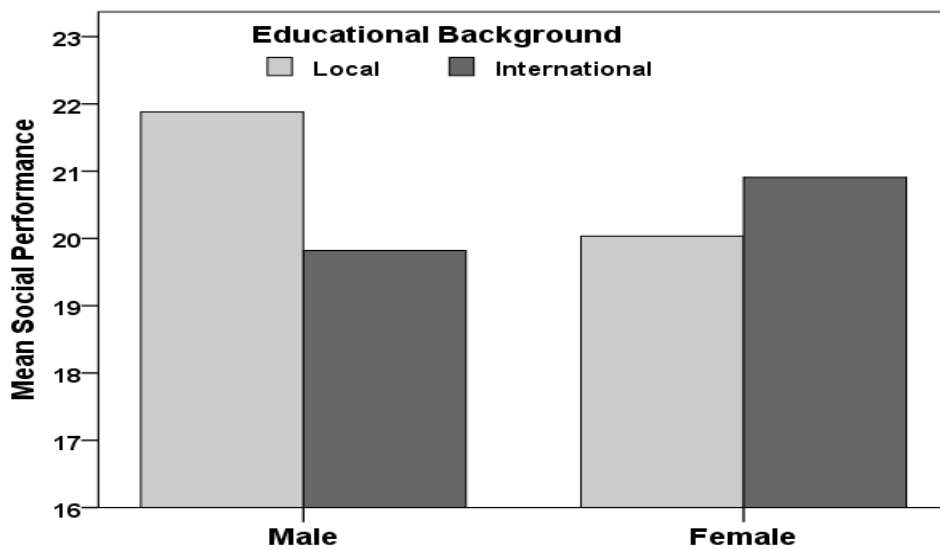


Figure 5.10 Mean social performance: Academic confidence as a function of gender and student status

5.7.4 Academic Performance

In examining the academic confidence factor of Academic Performance, a 2x2 ANOVA showed a significant main effect for gender, $F(1,250)=14.8, p < .01$. The interaction term was also significant, $F(1,250)=5.66, p = .018$. This is illustrated in Figure 5.11. It was apparent that for male students, home males exhibited higher levels of Academic Performance confidence relative to their international male counterparts, with means of 33 and 31 respectively.

In the case of female students, international females demonstrated higher Academic Performance confidence than their home female classmates, with means of 32.5 and 30.6 respectively.

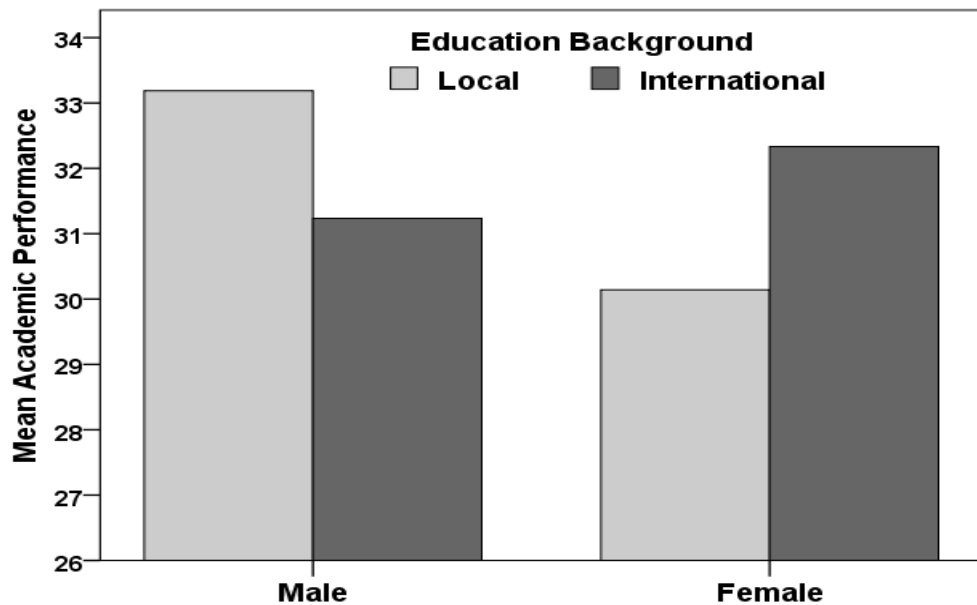


Figure 5.11 Mean academic performance: Academic confidence as a function of gender and student status.

5.8 A consideration of Student Status and Gender

In exploring distribution of data and relating it to demographics, a number of statistical analyses indicated that whilst significant relationships could not be fully determined, some interesting trends emerged in the data and these will be presented in the following pages. A consideration of the distribution of the data and its association to the demographics of the sample revealed some mild to moderate effects of gender and student status on the four independent factors.

One-way ANOVA's were conducted with gender as the independent variable. The means are shown in Table 5.8. Significant effects were found on two measures, namely Social Performance and Academic Performance.

Table 5.8 Comparison of gender against the four aspects of Academic Confidence

	Male Means (<i>n</i>=107)	Female Means (<i>n</i>=148)	F	<i>p</i>
Workload Management	18.1	18.35	.5	.48
Social Performance	21.6	20.2	6.5	.011
Time Management	12.8	12.7	.09	.76
Academic Performance	32.9	30.6	13.6	.01

Additional analysis was also done to see if any confidence differences existed between female respondents as compared to their male classmates. The results of the analysis are shown in Figures 5.12 and 5.13 of item means against student status and for gender.

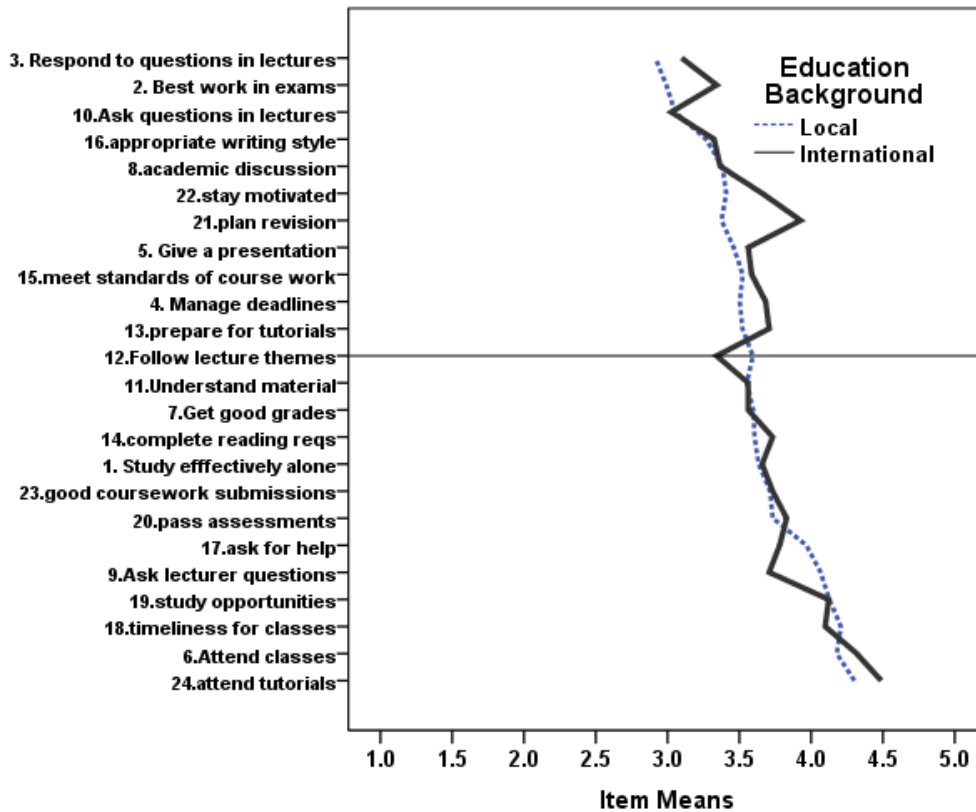


Figure 5.12 Item means as a function of student status

Figure 5.12 shows the confidence level of participants as a function of student status. The pattern should be interpreted in the light of the analysis shown in Section 5.2. What is evident in Figure 5.12 is that international students were reporting higher levels of academic confidence when compared to their home classmates, for example, Items, 2, 21 and 24. This appeared to be due to the responses of international female students (see Figures 5.9 and 5.10), who seemed to be responding at a higher level than international male students.

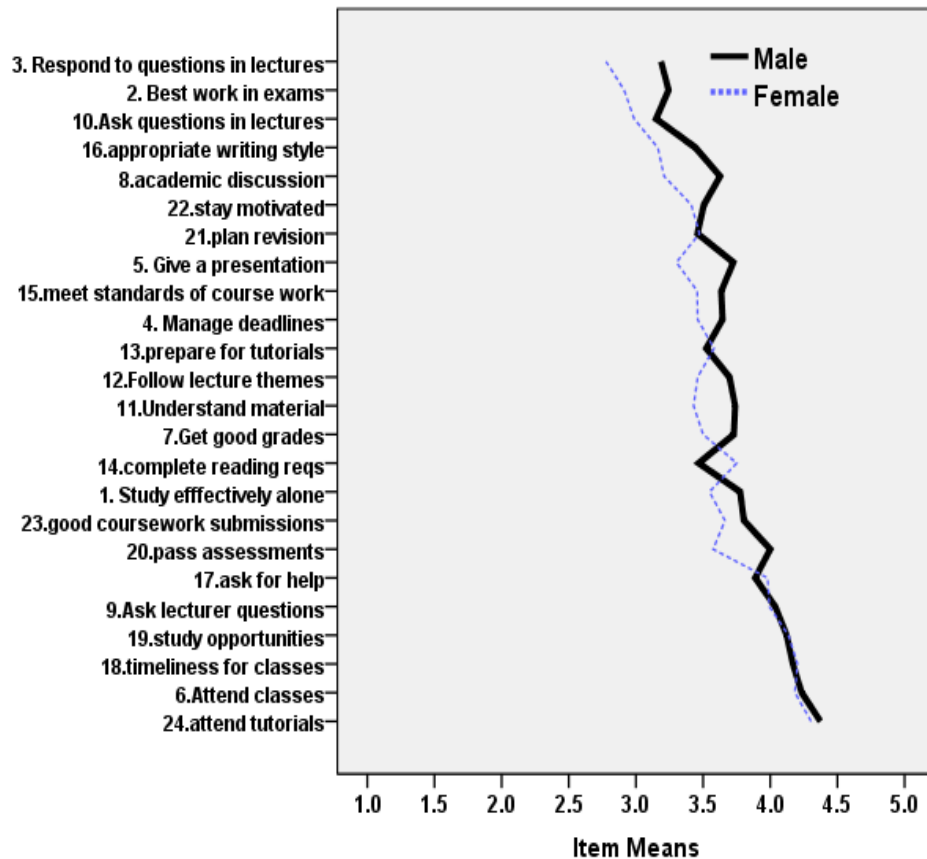


Figure 5.13 Item means as a function of gender

The subsequent analysis gave rise to several interesting interactions. However, it can be seen in Figure 5.13 that in several items the means for male participants in the study is slightly higher when compared to the female participants. This pattern appeared on items where students appear least confident.

An inspection of Figure 5.13 might suggest that international females were responding at a more confident level than the international males. These apparent trends will be inspected more closely in Section 5.11. Inspection of Figure 5.13 suggests that males appear to be over-represented in the High category relative to females (31% vs. 21% respectively). However, Chi Square testing revealed that this difference was not a significant one. This would appear to be consistent with existing findings about gender confidence, as considered in Chapter 2, Section 2.18.

5.9 Trends in Student Perceptions of Academic Confidence

All four factors of Academic Confidence were analysed; those results demonstrating significance are presented in this chapter; the additional analyses may be seen in the Appendices, in particular Appendix H to J inclusive. The influence of the variable of Age is presented in the following section.

5.9.1 Age as an influence on Academic Confidence

It was speculated in Chapter 2, section 2.7 that students of diverse age groups and academic exposure undertaking tertiary education might present different levels of academic confidence. This was tested in the present data by the variable “Age”. Age was defined in terms of “Direct Entry” which consisted of students under the age of 22 years of age and “Re-entry” which were students over the age of 26. These two groups could be reasonably contrasted. Those students between the ages of 22 – 25 were not included in this analysis. Table 5.9 presents the data.

Table 5.9 Means of Direct and Re-entry students as an aspect of Academic Confidence

	Direct entry Means (n = 84)	Re-entry Means (n = 127)	F	p
Workload Management	17.6	18.5	3.96	.48
Social Performance	19.45	21.63	14.0	<.01
Time Management	12.9	12.5	1.9	.165
Academic Performance	32.6	30.8	6.3	.013

An interesting pattern was evident on two indices, Workload Management and Social Performance. The re-entry students’ evidenced higher scores than their younger classmates. However, on one dimension, Academic Performance, direct entry students evidenced higher levels of academic confidence. Figure 5.14 illustrates the effect of respondent age on the four aspects of OAC.

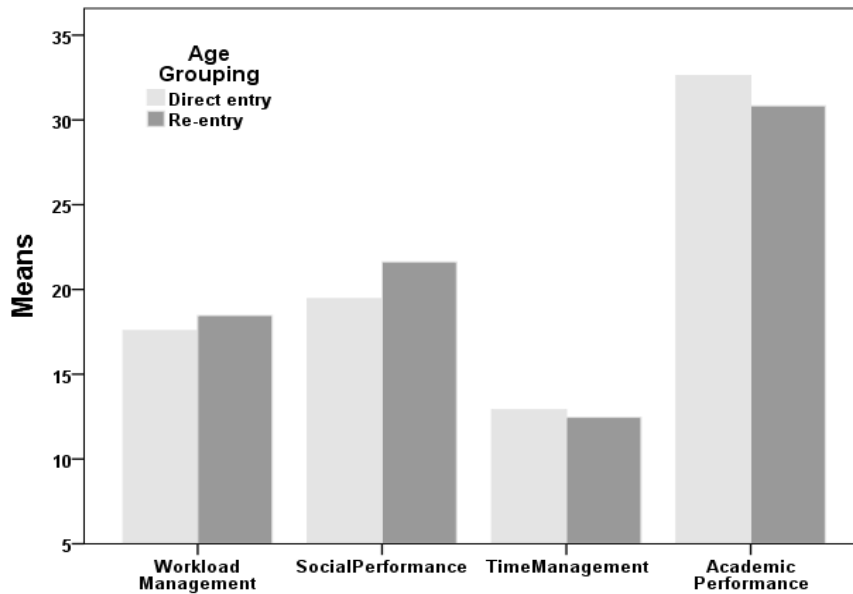


Figure 5.14 Age and its effect on the four aspects of Academic Confidence

5.10 Changes in levels of OAC over First semester

All respondents were asked if they would be willing to re-take the Academic Behavioural Confidence (ABC) survey at the end of their first semester, to assess potential changes in their perceived level of confidence over time, as the types and varieties of academic tasks became more familiar. Interview respondents were the most supportive of this request. Figure 5.16 indicates the significance of this change, showing the increased level of Overall Academic Confidence (OAC) at the end of the first semester of classes.

A paired t-test was carried out on a small sample of interview respondents in June 2013. This indicated a positive shift; a general upward trend was observed which is shown in Figure 5.15. Of particular note were the substantial shifts for two students, from 2.79 (low) to 4.58 (High) and 3.23 (Mid) to 4.38 (High) respectively, as defined by the categorisation discussed in section 5.15 of this chapter. Possible explanations for this shift will be discussed further in Chapter 6.

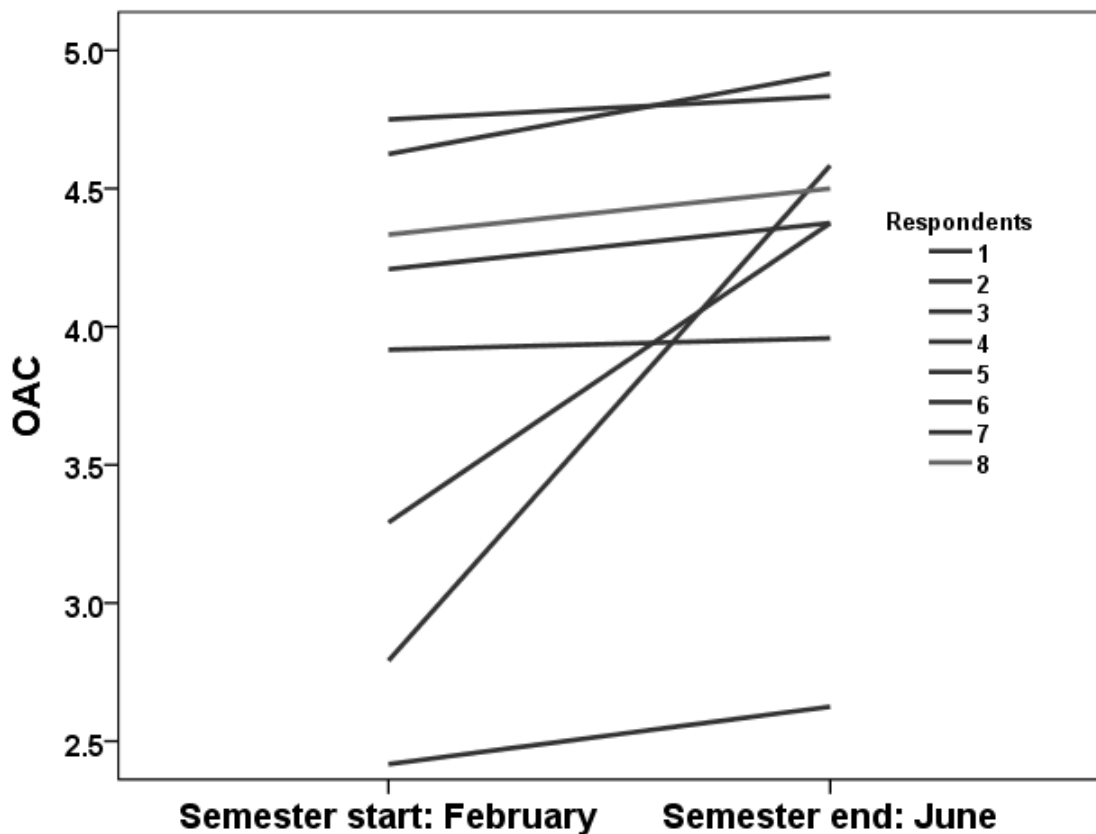


Figure 5.15 Change in Confidence over first semester in 2013

As Stankov *et al.* (2013, pg. 11) points out, confidence is linked to long-term judgments of ability. Participants have time to reflect on and weigh up their performance, both expected and actual, across an interval. Whatever the gap, suggests Skaalvik and Skaalvik (2002, pg. 234) mastery of experiences such as those from positive responses of assessment work together with reflected appraisal; that is, the view formed by the opinions others hold of an individual, integrate to form an ever-shifting prism of consciousness of ability. That consciousness undergoes consistent micro-adjustments, depending on the perception of the quality of the achievement. This notion of consciousness of ability and its relationship to academic confidence will be further discussed in Chapter 6.

Although the overall OAC score did not show a substantial shift, a significant change was noted in terms of the factor of Academic Performance. Figure 5.16 illustrates this shift.

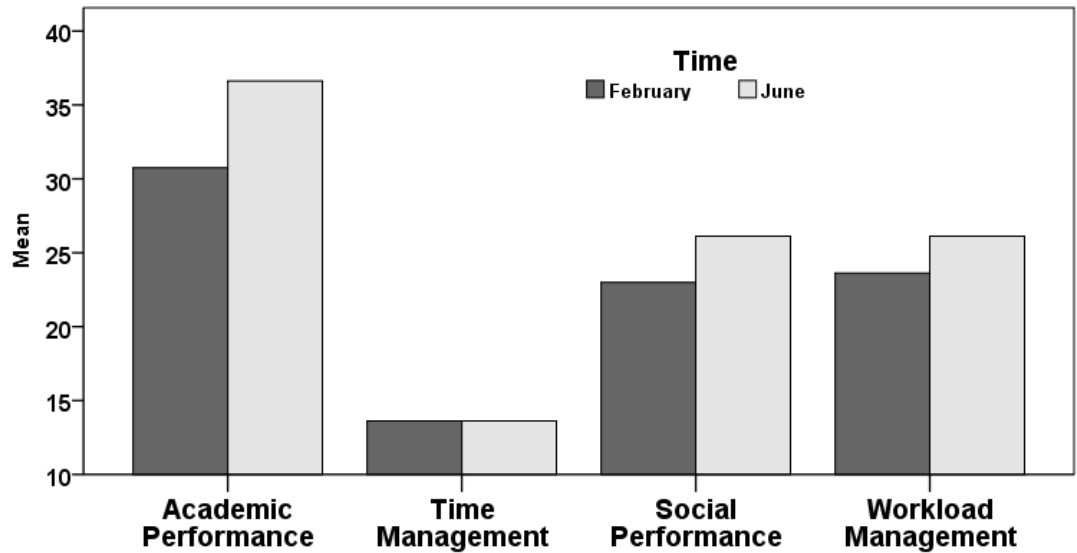


Figure 5.16 Changes in OAC: Semester start to semester end

As can be seen in Table 5.10, Academic Performance saw increases in confidence across the semester. This co-occurrence appears to demonstrate increased levels of confidence with regard to their perceptions of their academic abilities. Time Management however, remained unchanged. Social Performance and Workload Management also indicated modest, positive shifts, possibly as students developed deeper knowledge and task ability over the duration of the semester.

Table 5.10 Time effects on the four factors of Overall Academic Confidence

OAC Factors	Time 1	Time 2	t(df = 7)	p
Academic Performance	30.75	36.62	2.68	.03
Time management	13.62	13.62	.0	1
Social Performance	23.0	26.12	1.85	.106
Workload Management	23.62	26.12	1.47	.183
OAC	3.79	4.27	2.16	.067

Inspection of individual item responses also indicated most questions showing a positive upward shift. Of note are items 16 and 20. As discussed in Section 5.11.1 and illustrated by Figure 5.14, those students reporting SEN indicated particular concerns as to their confidence to: “write in an appropriate academic style” (Item 16) and to: “Pass assessment at the first attempt” (Item 20). Both items were also reflective of a substantial change in perception of academic confidence. Item 20 was significant, $p = .038$, as were Items 13 (How confident are you that you can thoroughly prepare for tutorials?) and Item 15, $p = .041$ (How confident are you that you can produce course work at the required standard?). Interestingly, Item 18 “How confident are you that you will be on time for lectures?” remained stable for the sample across the interval.

Table 5.11 OAC changes on Items: February to June 2013

Items	Time 1 (February)	Time 2 (June)	t(df=7)	p
Q1	3.75	4.38	1.488	.180
Q2	2.75	3.38	1.667	.140
Q3	3.63	4.00	2.049	.080
Q4	4.00	4.38	1.000	.351
Q5	3.5	3.75	-.552	.598
Q6	4.13	4.38	1.000	.351
Q8	3.88	4.38	1.528	.170
Q9	4.25	4.75	1.528	.170
Q10	3.75	4.38	1.357	.217
Q11	3.75	4.38	1.930	.095
Q12	3.75	4.63	2.198	.064
Q13	3.88	4.63	2.393	.048
Q14	4.0	4.63	1.667	.140
Q15	3.25	4.13	2.497	.041
Q16	3.0	3.6	1.667	.140
Q17	4.0	4.88	1.698	.133
Q18	4.88	4.88	.000	1.000
Q19	4.63	4.38	.607	.563
Q20	3.0	4.13	2.553	.038
Q21	3.75	4.13	.753	.476
Q22	3.38	4.0	1.930	.095
Q23	3.5	4.0	1.528	.170
Q24	4.63	4.38	.798	.451

5.10 Summary of Factor Analysis results

Thus far, the results of the quantitative analysis demonstrate that Academic Confidence in this sample comprises four key factors: Academic Performance, Social Performance, Time Management and Workload Management respectively. Students in this sample show confidence level means that go from a score of 2.9 lowest to 4.3 highest and is relatively normally distributed. Analysis of the sub-scales indicates some effects of gender and fee status as outlined above.

However, it was also evident that the four factors would not be seen to be orthogonal; thus the analysis used an Oblimin rotation (see Table 5.1) and the factor scale scores tended to intercorrelate (see Table 5.5).

Based on the strong correlation of all 24 items contributing to a Cronbach's alpha score of .903, a meaningful single score indicating an Overall Academic Confidence score was calculated for respondents.

The variables of First Generation University student, Student status, Special Needs and Age were also examined for their possible influences on academic confidence. Interestingly, being 'First' did not appear to have a significant effect on overall academic confidence, whereas there was some significance in Special Needs and Age. These trends will be discussed further in Chapter 6 and 7.

The data did not demonstrate a main effect in identifying differences in academic confidence between home and international students as described by the variable of Student status. However, a gender effect was noted, particularly amongst international females in comparison to their home female classmates and male classmates from both groups. This interaction was most evident in the Workload Management factor. There was a co-occurrence of increased OAC levels in students

The following section of this chapter examined the interview data and considered other influences, which might contribute to different levels of an Overall Academic confidence score.

5.11 Qualitative results: Overview

At the end of the summary section as outlined, we now move on to a consideration of the qualitative data. The first section deals with a recap of the design of the interview questions, followed by discussion of the emerging themes from the qualitative data analysis.

The interview questions (see Appendix E) were divided into three sections with two parts. Section 1: Survey Details, comprising questions 1-3 asked for confirmation of the ABC scale survey data. Section 1: Consent, comprising questions 4-6, asked for elaboration of data supplied by the respondent on the initial consent form (see Appendix C (1)). This was tied to Section 3: Academic Background, questions 13-19. For example, if respondents had indicated their country of origin and/or ethnicity was outside of Australia, they were asked to elaborate on details of their previous educational experiences. This might be primary or secondary schooling.

Section 2: Attitude, comprising questions 7 – 9, asked the interviewee to consider their own perceptions of how they perceived their ability as compared that of their classmates, whilst Section 2: Self –Reflection, comprising questions 10 – 12, asked for deeper reflections on the nature of academic confidence as comprising behaviour or actions.

As the results presented in section 5.9 have indicated, the use of a single score as an indicator of Overall Academic Confidence (OAC) was possible. Therefore, once all of the interview data were collected and collated, this score was used as a means of categorising respondents by way of their OAC.

5.12 Analysis of interview data

As proposed in Chapter 2, section 2.1, Academic Sustenance is conceptualised as that element which supports an individual's ability to deal with academic challenges and allows their academic confidence to develop in order to cope with difficulties. If as suggested, Academic Sustenance is an accumulation of positive past academic experiences in order to build a reserve of, as Feeney and Lemay (2012) describe as

positive experiences or emotional capital, it therefore takes a long-term view of confidence-based judgements, rather than short term based self-efficacy beliefs; although such beliefs may be linked to resilience and optimism, they are outside the scope of this investigation.

With this in mind, interview transcripts were analysed for evidence relating to the dimension of positive experiences. From the analysis, it is additionally proposed that Academic Sustenance might be developed by four elements, classified as Encouragement, Drive, Grounding and Efficacy (EDGE). Those elements appear to be non-hierarchical and appear to co-exist in single or multiple groupings; the nature of which will be explored further in the chapter. Where relevant, as well as overall OAC ranking score, the scores on the different sub-scales examined in the factor analysis were considered as part of the qualitative analysis, in order to determine if each of the elements of positive past experiences might link slightly differently to the different elements or sub-scales that make up ABC and hence, support the effect of Academic Sustenance.

This discussion considers each of the elements as either an affirmative or adverse influence on an individual's Overall Academic Confidence (OAC), suggesting a clearer paradigm for Academic Sustenance as the stimulus for a positive effect on a students' ability to deal confidently with academic challenges and setbacks.

The OAC score is used throughout this section of the discussion in order to indicate the level of respondent's confidence in approaching academic tasks and challenges and also considers the variables of Age, Special Educational Needs (SEN), First Generation University student (FGS) and gender as variables influencing confidence and thus signposting Academic Sustenance as a source of support. The results are presented thematically demonstrating how each element fits the framework proposed in Chapter 2 as illustrative of the relationship between Academic Sustenance and Confidence.

5.13 Emerging themes which build Academic Sustainance

As proposed in Chapter 2, Figure 2.1, Academic Sustainance has been conceptualised as having four facets: Self-efficacy, Determination, Resilience and Stamina. In order to see how students discussed these elements and how those elements linked to their level of confidence, the interview transcripts were analysed, with a focus on understanding the types of experiences which demonstrated or characterised each of these elements, suggesting that positive, sustaining experiences do support the development of Academic Confidence. The provision of more positive than adverse experiences then allows students to rebound and recover more readily from setbacks and obstacles in the course of academic pursuits. The argument put forward therefore, is that positive past academic experiences help to develop these elements of Academic Sustainance.

As the interview transcripts were analysed, recognisable similarities in experiences began to emerge based on the four preliminary facets of Academic Sustainance. These could be further categorised, as respondents articulated comparable opinions and viewpoints. For example, the element of Determination encompassed both a resolve on the part of the student to achieve a particular objective, but also included a physical component, where the student might have physical challenges to endure as part of their targeted objective. Determination therefore involved Drive, thus the theme of Drive was identified as a building block of Determination. Respectively, other elements had similar cornerstones; Resilience had the facet of 'Encouragement', based on the premise that resilience is an aspect of the effect of on-going encouragement to build a non-defeatist attitude. The element of Stamina had the facet of 'Grounding', recognising both the physical capabilities required for managing academic commitments, as well as the basis of understanding academic fundamentals, in recognising that there were essentials of education requiring correct procedural knowledge, such as writing in appropriate academic styles or using the appropriate referencing convention, which many respondents recognised as a key part of successful study technique. The remaining element of Academic Sustainance is Self-efficacy, which was classified as 'Efficacy'. Efficacy encompassed the

idea of the individual’s ability to produce a particular result to the required standard, such as passing exams or preparing coursework, suggesting that effective practices build links to the belief that such practices when used appropriately, develop positive academic experiences.

The following sections detail each of these themes, Encouragement, Drive, Grounding and Efficacy. In order to have a clearer understanding of the group of respondents, Section 4.5.1 of Chapter 4 provided details of individual interviewee backgrounds, in order to provide a more acute impression when considering the effect of particular experiences, as recounted in the following section. The reader is reminded that in order to maintain confidentiality, all names were changed, thus quotes are indicated by the respondent’s pseudonym.

Name and OAC ranking categorise material drawn from the interview data and cited in the discussion. To recap, High OAC signified an ABC score of 4.0 or higher; Mid OAC signified a score between 3.0 and 3.9, whilst Low OAC signified a score of 2.9 or lower. The corresponding letter, as shown in Table 5.12, indicated each ranking:

Table 5.12 Overall Academic Confidence rank indicator

OAC Ranking	Letter indicator
High	H
Mid	M
Low	L

5.14 Theme 1: Encouragement

It could be argued that although we see variation in levels of confidence in the sample we might acknowledge that all participants have had some sustaining experiences, which both permitted or stimulated their resolve to return to HE. Indeed, all interviewees demonstrated this aspect of academic confidence; as all had chosen to enter HE at different stages of experience and life in order to pursue their own particular goals. It can also be argued that in this case, they are representative of a university sample, in that all demonstrate a level of Academic Confidence mostly positive. That is, their position in the distribution may have been different if they were

part of a sample group drawn from the general population, rather than a specific sample of students. As such, it is necessary to recognise that the data does capture a sense of the differences between students when commencing HE. The findings also recognise the ways in which positive experiences can develop Sustenance and how deeply felt previous, negative experiences can continue to resonate even many years later. This aspect of OAC is explored through the themes outlined in this section of the discussion.

As introduced earlier in this chapter, one of the themes to emerge from the interview data was of the importance of encouragement, which was based on the element of Resilience. Encouragement can be in the form of supportive actions by authority figures, such as teachers or parents, and also by peers who provide practical support, such as classmates, partners or friends. High-ranked OAC respondents appeared to have had more positive experiences of parental support and due to this reassurance revealed more optimistic perceptions of ability.

"...my father was very, very much (in favour) of getting an education. I think it was partially my upbringing cos my dad was (in the armed services) ...very regimented ... I guess he taught me never give up..."Helen A(H)*

In contrast, both Mid and Low-ranked OAC respondents held less positive views, indicating the loss felt of educational encouragement and limited parental involvement:

*"...My dad is very distant. My dad spent all day with teenagers and it was very hard for him to then come home to teenagers. I think because of the way my dad was, I tried to do really well but I never could so I sort of never expected too much from my abilities..."
Caroline A* (M)*

*“...I remember not going to school a lot of the time. I...went to school in ***. I just don’t know where. My parents weren’t big on sending us to school... we (siblings) never got a solid foundation and we all kind of struggle... the things my parents did, I look back and I think they were just crazy. Who would do that?” Marion C* (L)*

Hornby and Lafaele (2011) and Park and Holloway (2013) suggested that disenfranchised parents have a greater effect on pupil and student ability when considered as an overall aspect of parental involvement. Indeed, as Hornby and Lafaele established, attitudes and behaviour of pupils shifted significantly when parental involvement increased (2011, pg. 37). Low OAC-ranked respondents underscored this dynamic when parental involvement was limited or absent:

“...mum and dad they’re great but there was never any real push, like you have to go to University or you have to get a trade or anything like that...” David B (L)*

“...I found it hard coming back to Uni cos my parents didn’t agree with it. They actually said to me ‘Oh, you know, you had such a great working life, they loved you there, is that the smart thing to do...?’” Lisa C(L)*

Encouragement from teachers was seen as particularly important. In the majority of cases, all respondents regardless of their OAC ranking, cited incidents or events where reassuring or supportive actions from an authority figure provided guidance or stimulus. Such incidents took the form of mentoring or additional assistance. Encouraging incidents were recalled with clarity and affection and were clearly transitional and transformational moments. Chester *et al.* (2013) suggest that successful mentoring provided a number of significant positive experiences to students so as to enable a smoother transition into Higher Education and with overall improved academic perceptions of aptitude:

"...my drama teacher who was also an English and Classical Studies teacher and she invested all her time into me. She chose to tutor me in Year 12 because I had gone from being a ratbag to saying no I want to make something of myself ... she would say 'no, you're really bright' and she would go 'no, you've got strengths that you're not seeing', so she was amazing and I don't think I would have gotten through that..."Lisa C (L)*

Other respondents found peer support through group situations; both interactions with individual classmates and more formalised study groups were cited as a technique for receiving reinforcement and support. Whiteman *et al.* (2013) point out the particular benefits of emotional support from peers in study groups, suggesting this might alleviate the stress some students feel when commencing tertiary education, Indeed, Low OAC-ranked respondents who had formed or joined such groups, acknowledged both the camaraderie and optimism, whilst stressing the social atmosphere:

"...within the four people that I am involved with, um, we're all on a similar level, we're all keen to do as well as we can and you know we're taking it seriously...it has more of a social aspect but if ever any one of us is needing help with something we will all, you know, ask the others, you know 'what do you think about this' or whatever..."Patricia L (L)*

The interview data revealed the significance of previous, positive experiences as having a bearing on the approach taken by individuals to deal with academic challenges. Such opportunities suggest a development of that individual's reserve of Academic Sustenance, which then supplemented and bolstered their level of Academic Confidence. Low OAC-ranked respondents also acknowledged the impact of sustaining experiences when peers offered continual, supportive encouragement, which Koo *et al.* (2013) argue is a critical method of reassurance and affirmation of abilities.

"... Yeah, it was other people around me. Yeah, you'll be fine, just go do it, you'll be able to do it..." David B (L)*

The exposure to sustaining experiences by Low OAC-ranked respondents and the subsequent effect on their Academic Confidence was indicative of the ability of students to find new reserves within themselves to assist with managing their studies more capably. Several Low OAC-ranked respondents recalled significant, previous, negative, educational incidents, expressed the difference between those incidents and more recent supportive experiences:

"... a friendship/study group has sort of happened accidentally and they say they like studying with me because I make them study... I have completely changed. Yes. I went from being a bit of walk-over, almost like a push-over, I wasn't a dominant person and then all of the sudden I've become not so much dominant but I'm not afraid to say what I need to..." Lisa C (L)*

"...I initially thought that coming from my working background and not coming straight out of education that I would be on the back foot but I don't feel like I am now... It all flows and you can actually use things you have learned from other subjects and it works well with the next one, so I feel like I am learning much more effectively..." Patricia L (L)*

The analysis of the interview data has surfaced several interesting observations. Firstly, statements from Low OAC-ranked respondents indicate that positive sustaining experiences could potentially overturn long standing, adverse experiences in a relatively short time.

“...I wasn’t a big bookworm in high school. Just enough to get through. All that wasn’t enough, so I left school... (the difference) just the whole thing (at university) knowing that you’re not alone...” David B (L)*

Secondly, contact with sustaining experiences also appeared to boost individual encouragement amongst lower ranked OAC students, allowing them to seek assistance or advice:

“... I found that out when we went to the Information Sessions ...there is help there, you’ve just got to ask for it...” David B (L)*

The positivity indicators expressed by students ranked with lower levels of OAC may reflect the newness of their university experiences. As discussed at the beginning of this theme of Encouragement, the sample as a whole may show higher levels of academic confidence than a sample of individuals who were not participating in HE. Other variables however, may also have influence on Encouragement, which is discussed in the following section.

5.14.1 The effect of the EFA Independent Variables on Encouragement

As the EFA analysis indicated, some effects were noticeable in Gender, although as discussed earlier in Chapter 4, section 4.6.1, the interview sample contained fewer males than females. The imbalance between genders might mean that interpretations made about this variable may resonate less robustly than other claims. Gender assertions notwithstanding, as there were discernable trends identified by the EFA, particularly in the variable of Special Educational Needs (SEN) on the sub-scale of Academic Performance, the interview data was examined in order to probe more deeply into this and other relationships.

Students with SEN (n=35) showed significance in items 16 and 20 ($p = .02$) in the ABC survey, when examined individually. Both items loaded into the factor of Academic Performance. The relationship between deficiencies of ‘Encouragement’ as

a consequence of non-sustaining academic experiences, appeared to stem from fractured early academic episodes.

“...I think I didn’t have any real goals, goals that I was aiming for going through school. I was just, yeah, going through the motions...” David B (L)*

Protracted education gaps due to lack of parental support resonated intensely, with some respondents, even many years later. In the case of Marion C* who had a recognised SEN, lack of parental support along with the SEN was detrimental to the development of sustenance:

“...The things my parents did, I look back and I think they were just crazy. Who would do that? ... when I asked for help, it was no. So when I get a no now I really take it as a huge challenge...” Marion C (L)*

Bong and Skaalvik (2003, pg. 2) suggest that important life outcomes are shaped by early school experiences. Re- entry students as Weiner (2012) suggests, are often further removed from past educational experiences, so it is important that appropriate educational encouragement, which could sustain them, is available. This was more evident in the Low OAC-ranked respondents, who commented on stress of exams, hesitation in voicing opinions, unease of expectations regarding standards of assessment submissions and progress with coursework.

“...I find the older I’m getting the harder it is and I’m kind of like am I doing the right thing, but I want to do this because deep down so that I can have a life...” Marion C (L)*

5.14.2 ‘Encouragement’ and Performance

Thus far, it is evident that Encouragement is an important aspect influencing respondents with higher levels of OAC and that a lack could also effect students significantly as to be reflected in a lower OAC-ranking. Indeed, the absence of

Encouragement at intervals in a student's educational life and subsequent influence of negative past experiences was a feature resonating throughout current experiences as related by Mid OAC-ranked respondents, but especially by the Low OAC-ranked respondents, even if there were more positive experiences taking place. Performance is linked to confidence, encouragement or encouraging experiences appear to be linked to sustenance, so ultimately this may affect performance. Other variables such as SEN might also be linked to performance; when we consider both SEN and Encouragement together, it appears that there could also be a link between lack of encouragement and SEN - this may not be deliberate and may indeed link to social or cultural views of SEN, which mean parents expect less and so encourage less. It is the point at which the positive experiences outweigh the negative ones, which suggest that Academic Sustenance might be the source from which students could draw the resilience and determination needed to overcome their academic challenges.

5.15 Theme 2: Drive

As proposed earlier in this chapter, another of the elements appearing in the interview data analysis was the effect of 'Drive'. Drive could be considered the level of determination both mentally and physically necessary, to attain an objective or to realise an ambition. In many instances, obtaining an academic qualification is seen as a gateway to improved chances of economic success or for particular career advancement. Direct entry (categorised as under the age of 22) and Re-entry (categorised as over the age of 26) students, defined by the variable 'Age', did show some interesting effects on two indices in the factor analysis. As Table 5.9 indicated, Workload Management ($p=.48$) and Social Performance ($p<.01$) both showed higher scores by re-entry students. Figure 5.14 also illustrated the differences in levels of Academic Confidence between the two groups.

Respondents with Low OAC-ranking and with less recent academic experiences were less sure of their ability to acquire the necessary academic skills to be able to perform at the required levels.

"...I thought I did until I came to University. I always feel quite like I, you know. I always feel with (one of my lecturers) that she always says 'Oh there is never a wrong answer' but I will say something and she will go 'Mhmm' and I think what does Mhmm mean..." Caroline A (M)*

In contrast, respondents with more recent educational experiences reported fewer difficulties with managing their coursework.

"...I think the difference between me and my peers is that I don't panic..." Helen A (H)*

The factor analysis indicated that 'Age' did have an effect on OAC, as Re-entry students evidenced higher scores than their younger classmates. However, Re-entry students were less confident overall than their younger classmates, suggesting that more recent experiences did serve to boost those individual's perceptions as to proficiencies and performance (see Figure 5.15 for an illustration of this difference).

"... from the forum I see that the other students are all younger. I'm the oldest one on there and they've all got recent education and are up-to-date with it, so I'm not at their level..." Marion C (L)*

"...between lecturers and things, they haven't made it very ... to me a lot of what they (academic staff) keep telling you is very negative like 'Don't do this, don't do that, don't do the other' like with essays and things like that..." Caroline A (M)*

Nevertheless, High OAC-ranked respondents unanimously voiced comparable sentiments when reflecting on the manner in which they approached their studies and commitments.

"...It's my mindset and this is the deadline I have, this is what I have to do..." Helen A (H)*

It should be recognised that 'Drive' has an aspect of physical effort; to tangibly maintain the stamina to meet study obligations, sitting in lectures or staying up late in order to study. Physical energy such as sitting through a lecture is part of the relationship between the material requirements of studying as well as the cognitive tasks involved in absorbing information during the lecture and then consolidating the information into a useful form in order to meet assessment requirements. 'Drive' therefore incorporates psychological as well as physical strength, in order to achieve one's objectives. Respondents noted the effort needed for such undertakings:

"...I perform better if I don't over-extend myself...it physically exacerbates pain. So then you're exhausted and can't take in any information, so it limits you..." Marion C (L)*

High OAC-ranked respondents seemed less focused on the physicality of studying, instead focusing on the psychological objectives implicit though establishing goals. Table 5.13 indicates the similarity and consistency of High OAC-ranked respondents in articulating their awareness of and resolve to obtain their desired goals. The consistency of response categorised as 'Drive' between High OAC-ranked respondents is notable for two things; firstly, each articulates a particular focus and determination when reflecting on their progress and objectives. Secondly, each further articulates a belief that their maturity or psychological preparedness in thinking played a significant part in their perception of ability and likely success. What was suggested by the uniformity of response amongst High OAC-ranked respondents was the influence of previous, positive, sustaining experiences; which both supported and cultivated that individual's ability to take a positive view of the likelihood of success in academic endeavours. Their Overall Academic Confidence ranking supported this inference; those respondents who had the opportunity to receive positive academic experiences appeared to have a more optimistic outlook with regards to their academic aspirations.

The gender trend reported in the FA results indicated that females in the sample demonstrated higher levels of OAC in the factors of Workload Management

and Academic Performance. Interestingly, much of the literature examining confidence, self-efficacy and self-esteem (see Hill, *et al.* 1987, Boulter, 2002 and Bandura, 1997) suggest that males over-report their levels of confidence. Sander and Sanders (2009) noted this effect in their study. Pajares points out that students' belief in their ability does influence their actual performance in several ways, including effort expended on a particular task and also tasks which might be intentionally avoided as being difficult or causing undue stress (2002, pg. 116).

Wigfield and Wagner (2005), Eccles *et al.* (1993) and Pajares (2002, pg. 118) also found that in subjects such as mathematics, males and females often reported similar levels of confidence in self-regulated reporting during initial exposure; with male students reporting higher levels of confidence over time. Interestingly, in their 2003 study, Sander and Sanders found that female students reported higher levels of confidence in the category of "Studying" than their male counterparts (Sander, 2009, pg. 34). The gender balance of the sample has already been discussed in an earlier section of this chapter, however, the number of females with High OAC is interesting in that it suggests a greater number of females are the beneficiaries of sustaining academic experiences, leading to increased Drive.

Table 5.13 High OAC respondent observations about expectations and goals

Respondent	Observation
Neesa A*	"...I think my age has a lot to do with it. Age and I guess life experience as well..."
Simon J*	"...I like to do things well, you know we've all heard P's get degrees, well I don't want a P, I want a D. I'm going to do well..."
Manuel P*	"...everything, you know, does have consequences and effect. If I don't take care like on my work there is a consequence of failure or getting failure, or low grade, but if I focus then I can get more..."
Deidra V*	"...Maturity does bring a lot more focus. You know what you want, whereas I look at some of my fellow students and I wonder if (they) are going to be there whereas I know I definitely do..."
Valerie Y*	"...I don't have the concerns as some of the other students have. I don't know why that is but I don't ...when you want to get something you have to give up a few things as well and you know, manage your time very well ..."
Elaine K*	"...I don't just want passes, I want the best I can possibly achieve. I know the path that I want to take; I know what I have to do to get there... "

Such opportunities were most likely the result of consistent supportive actions on the part of teachers and other authority figures, as discussed earlier in this chapter, in section 5.14. However, negative experiences do not counter the evidence of more robust levels of Academic Confidence, rather, it suggested that a student's balance of confidence could be replenished through greater exposure to positive, sustaining experiences. OAC-ranked respondents with lower rankings, in contrast, struggled with the perception gap between actual performance and ability.

"...I've had some days where I've thought, geez I don't know, what am I doing this for...maybe I am doing OK because I'm not far behind these people that are posting heaps of information... So maybe I'm a little bit better than average..." David B (L)*

“...I feel disappointed because I understand that its an adult place of learning and that I am a mature age student, um, and I have a lot of life skills, But I find there’s not a lot of support for some basic skills – computing would be one of them. Yep, and I don’t find it the most friendly place either...” Caroline A (M)*

Thus far, the qualitative evidence has indicated that some students are reporting different levels of OAC based on their perceptions of their ability to deal with uncertainty, whilst maintaining their impetus or ‘Drive’ to achieve their goals. High OAC-ranked students appears to have a more focused outlook as to setting goals:

*“... I have to do this for *** years. I never thought I would be able to and I realise that I’m six months into it, or not even six months into Year 1, but there is something about this, there’s something about being here that says I belong...” Simon J* (H)*

“...when you want to get something you have to give up a few things as well and you know, manage your time very well...” Valerie Y (H)*

Extant literature discussed in Chapter 2, Section 2.6.2 indicated that self-efficacy beliefs form a core component of the way in which an individual expects and believes they can do something. ‘Drive’ in itself is an aspect of the determination mentioned at the beginning of this chapter, in this case, the compelling action was the establishment of a clear objective: to obtain an academic qualification; a point voiced across all levels of the interview respondents.

“...I want to gain a result out of it that suits me. Now I have got a focus...” David B (L)*

“...you know that the end result is your Bachelor Degree, you know, so you have to work towards it...” Valerie Y (H)*

“...I know if I have this Degree I’ll always have it behind me...” Pamela R (M)*

At this point, it is suggested that one of the reasons that Academic Confidence and self-efficacy might be interlinked with Academic Sustenance, is that they are not only established and reinforced through positive, academic experiences but the influence of some of the elements in tandem might exert a more forceful effect. The effect of such an influence would also explain why some students are able to cope more readily with the differing challenges and complications of higher education, because of this bi-directional relationship.

The provision of Academic Sustenance might also explain why students improved their OAC as time passed, as discussed earlier in this chapter, in section 5.13. The capacity to build on positive academic experiences could support someone to allow them to overcome setbacks and to work around obstacles, to sustain them sufficiently so as to realise an ability to manage adversity successfully. With this in mind, the next section of the discussion explores the theme of Grounding, from which it is suggested students additionally draw from in order to establish routines and the focus on skills necessary for successful academic pursuits.

5.16 Theme 3: Grounding

As Martin (2013) has argued, the need to understand student abilities has driven much of the contemporary research into probing the parameters of student performance. Collie *et al.* (2015) point out that such research is often to investigate underachievement. What remains something of an under-explored area of research is how and why students with similar educations have very different perceptions of their abilities and also, very different approaches to dealing with both academic success and disappointments.

A commonality emerging from the interview material was the necessity for physical and mental focus. Respondents commented on the need to overcome physical obstacles or to make adjustments to lifestyle in order to accommodate new behaviours.

".... I've been out of school a long time. I've worked in manual industry and doing – I haven't really been focussing with academia at all since leaving school. A couple of TAFE courses but they weren't too strenuous, though then convincing myself that I still have the capacity to learn again..." David B (L)*

"... I was confident that I would be able to learn the material but I just wasn't confident that I would be able to put it into writing and reflect that I knew the material." Patricia L (L)*

"...There could be physical limitations to it and from my own personal experience I've got to look at it from that perspective. Because the physical is not going to be able to give you what you desire to do..." Marion C (L)*

Respondents with Mid OAC-rankings had different interpretations of adjustments. Their concerns appeared to be more straightforward, in that respondents directed more attention toward adapting to the changed environment.

"...so coming into the Uni I thought 'have I got what it takes' so I was very anxious with knowing if I could really do it ..." Kevin R (M)*

"...I think there is a big difference because in Australian school the teacher is trying to make the students to participate in the class but in my country usually the teacher just is standing in the front of the class..." Peng Siu (M)*

In contrast High OAC-ranked respondents appear more focused on the actual requirements of studying and managing their time and workload.

"... I'm more organised, I allow time, plenty of time, to do what I have to do... I've got my blue sheet on my fridge, everything is organised into where (and when) I do what ..." Helen A (H)*

“...my parents kind of get it, they kind of get that I don't visit as much as I used to and that I still attend family functions but my nose is in the book...” Simon J (H)*

High OAC-ranked respondents may also demonstrate greater organisational skills because of previous experience or higher motivation, which showed some correlation in the factor analysis. As discussed earlier in section 5.15, one of the elements of ‘Grounding’ appeared to be the level of determination needed to persevere with an undertaking. The key distinction between the element of ‘Grounding’ and the previous element ‘Drive’ is that the latter is about an ambition or goal and the motivational tactics necessary to reach that aim, whilst the former is about the skills needed to achieve those objectives. ‘Encouragement’ therefore, has strong links to ‘Drive’ whereas ‘Grounding’ links to ‘Efficacy’ because it is about the skills needed and the beliefs that an individual holds to be able to use them.

Re-entry students were often returning to HE in order to advance their careers through an academic qualification or to seek a new career underpinned by their chosen qualification. Paunesku *et al.* (2015) suggest that the mind set of such individuals are less deterred by adversity, thus more likely draw on honed time management skills in order to maximise their study time. High OAC-ranked respondents noted the imperative of good time management strategies in order to maximise the likelihood of academic success:

“...it is really important to have a diary ... or make up a timetable... like I have a big timetable in front of my desk and its a daily timetable so I can see day to day, I can see how far away are my exams and when do I have to give my next assignment in...”
Valerie Y* (H)

The theme of ‘Grounding’ accentuated the necessity of understanding the renewed focus necessary for studying, particularly amongst students with less recent academic experiences. The relationship between current experience and non-current experiences had little effect on the nature of previous positive experiences.

Respondents reported that once the initial 'settling in' was achieved, many felt comfortable in re-establishing routines and behaviours. Those respondents with fewer positive experiences appear to struggle more with creating a viable routine and maintaining sufficient momentum to keep up with their workloads.

"...the fact that I haven't been overly confident in the fact that I don't want to fail, has made me take a lot of time to do my study and you know make sure that I can do it properly..." Patricia L (L)*

Overall, the element of Grounding illustrated the shift in thinking by respondents towards their studies and the resultant physical adjustments needed for successful re-immersing in HE. High OAC students appear to focus on developing and refining their academic skills to ensure they are prepared for any academic challenges, that is, that they are better 'grounded' whereas respondents ranked with lower levels of OAC appear to need more time to develop these skills because they have lacked or been denied access to sufficient opportunities in the past. This is an important link to Academic Sustenance as the influence of the type of supportive, positive academic experiences for example, reported by Lisa C* through the encouragement of an academic mentor in her final year of secondary school clearly changed both her perception of abilities and her psychological attitude as to the way she approached her HE studies. She was able to reflect on those skills she needed to develop and to apply useful strategies in order to increase her opportunities for success:

"...I wasn't confident about my ability to express my knowledge like in an essay format. Because I wasn't good at that at high school I try to alleviate that by, like, starting them early and trying to meet my deadlines like the week before they are due ...so that I've done enough to get through..." Lisa C (L)*

It would appear that Academic Sustenance was a substantial, supportive source for Lisa C*. Although her level of OAC was ranked as Low, she continued having sustaining experiences through 'Encouragement', attributed to peer support, 'Drive', attributed to the shift in her conceptual approach towards the objectives established

for completion of her studies) and 'Grounding', attributed to the practical skills and knowledge needed to achieve her goal.

The fourth and final theme to emerge from the interview material was 'Efficacy', conceptualised as belief in one's abilities to perform successfully at the level required.

5.20 Theme 4: Efficacy

The theme of 'Efficacy' emerged from the interview material as illustrative of the respondent's understanding of the necessity to approach academic tasks with a level of confidence in themselves that those tasks could be accomplished accurately, adeptly and to the prevailing standard required. As the initial conceptualisation of the relationship between Academic Sustenance and Academic Confidence comprised amongst others, the element of self-efficacy; the belief that an individual has in their own ability to achieve particular goals is crucial as it shows the extent of a person's resolve when trying new and unfamiliar things. The theme of 'Efficacy' was consistent with this notion as students needed to demonstrate a clear resolution to be successful if they wanted to acquire their academic qualification.

Low and Mid OAC-ranked respondents were able to demonstrate development of effective behaviours as they familiarised themselves with the demands of university life. High OAC-ranked respondents in contrast, were able to demonstrate well-developed behaviours more rapidly, highlighting the difference between the levels:

"...I just happen to like referencing so that's (part of assignment writing) easy..." Helen A (H)*

"...from my (previous) schooling we have been encouraged to study a lot and try to do ... revision that could help me to try to understand everything ... and to reduce ... stresses when the exams come..." Manuel P(H)*

“...I feel that I’ve improved since I started, so I’ve managed to pass all of my assignments so far and improved on my results for each assignment as its gone on, so, yeah, its not been as bad as I thought...” Patricia L (L)*

Structure and routine are used to create familiarity with a desired set of actions. Mastery of tasks creates knowledge and expertise; that knowledge then provides a sense of conviction when tackling similar situations that affirmative outcomes can be obtained. In the literature of self-efficacy and self-concept, the construct of motivation has oft been the basis for understanding intentional and unintentional behaviours.

The interview data revealed that High OAC-ranked respondents shared similar behavioural patterns in that they rapidly established and maintained a particular set of actions. Those actions encompassed activities like establishing a regular study schedule, or setting up a large format calendar where major deadlines were quickly viewable. Such incidents allowed for a deeper understanding of when high workload intervals were expected, and appropriate time subsequently allocated. This element, ‘Efficacy’, appeared to both direct and structure respondent’s study schedules. Hazell, Cotterill and Hill (2014, pg. 603) found that in pre-performance routines in sport-orientated activities had a marked effect in calming and focusing athletes, resulting in improved game performance and an overall reduction in anxiety.

Whilst education and academic activities are not immediately comparable at first look, the performance and attainment of specific targeted objectives do have some parallels. Higher Education does require a level of consistent performance not dissimilar to sport so it is not so far-fetched as to consider how high level athletes manage their own game performance expectations and behaviours. As Hazell *et al.* (2014) determined; reducing anxiety had positive correlations with performance, which then reflected in stronger capabilities and more concentrated effort when engaged in their field of play.

What is evident is that ability is malleable, dependent on a number of psychological factors. These factors appear to have deep-seated roots in the emotional make up of individuals, such that as some respondents reported, they continue to resonate many years after the initial event. The effects however remain and affect the individual's current perceptions, until a shift takes place. That shift, composed of academically sustaining experiences, may be the tipping point for assisting with a most robust appreciation of ability and capability.

That shift may be due to the increased opportunity for sustaining experiences, in the form of encouragement from peers and academics, a new determination to achieve a particular goal of develop new knowledge and skills along with the physical stamina necessary for doing so. As Stankov *et al.* (2014, pg. 11) points out, confidence in its various forms is attendant to judgements of ability, both long and short term. As illustrated by Figures 5.15 and 5.16 in this chapter, an upward change in OAC amongst respondents took place during the initial semester. The factor analysis indicated a marked, positive shift in the construct of Academic Performance, with increased upward shifts in Social Performance and Workload Management. The factor of Time Management remained stable, suggesting that strategies in use need no meaningful adjustments.

What became clear in the theme of 'Efficacy' was the shift in self-confidence, that though understanding for example, the correct procedure for taking lecture notes and then preparing an assessment piece, respondents could make rapid advancement in their study techniques that would pay off successfully, with passing or higher grades. Through peer support in the form of study groups, who could assist with guiding and discussing study approaches, respondents could develop a more robust set of academic skills. The FA indicated that such development was reflected in respondents' abilities to manage their workloads more confidently, as well as improving their social performance when responding to academic tasks such as following themes in lectures or being an active participant in tutorial discussions.

5.21 Academic Confidence and Performance: real life correlations

In this study, the results of the FA suggested the existence of a positive relationship between a student's perceived performance, defined as their Overall Academic Confidence (OAC) and actual performance, demonstrated by their grade point average. Figure 5.17 illustrates this effect. As Waratah State* University has a 7 tier range for GPA scores, in order to show it more accurately against the OAC score, the GPA was normalised.

In the case of Manuel P* (H), his normalised GPA score of 3.38 (as of August 2014) consolidates this proposition of a positive correlation between actual and perceived performance.

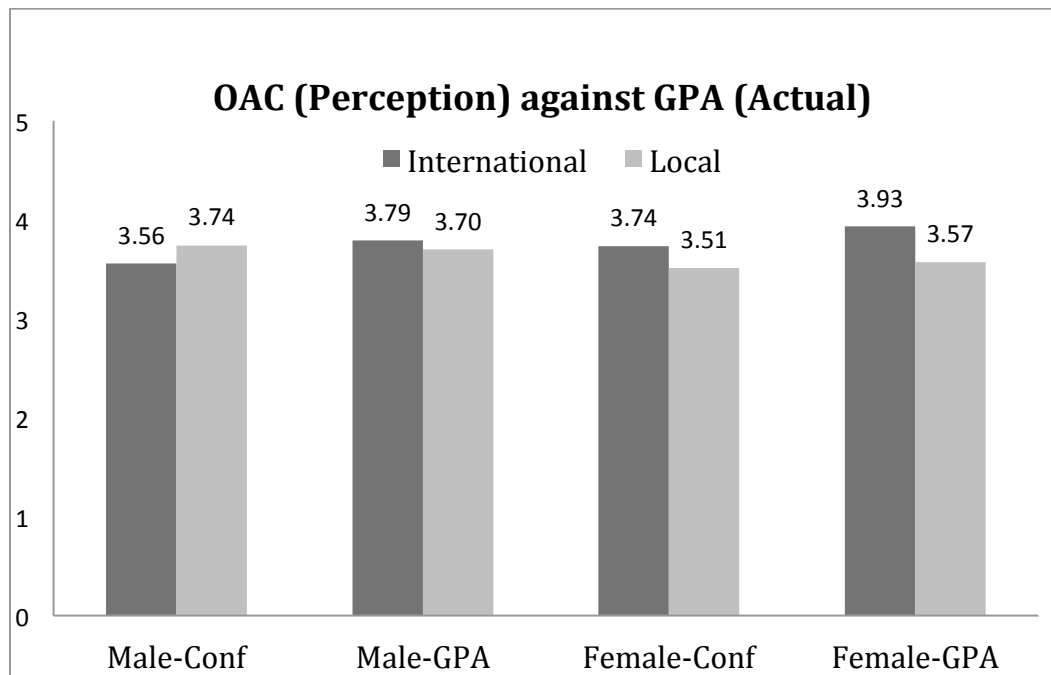


Figure 5.17 Student's perception of performance (OAC) compared with actual performance (GPA)

Lisa C* (L) suggested her actual performance might be low, given her Low OAC-ranking. In this case, the relationship is reversed as Lisa C*'s GPA score (as of August 2014) of 4.89 (normalized to 3.79) demonstrates that although she under-reports her perceived ability, her actual ability is evident. It is evident Lisa C* had

found strength within herself to overcome the previous negative perception of her academic abilities and instead, create a more positive image.

Peng Siu* (M) also reported a lower OAC-ranking, suggesting along with Lisa C*, a perception of lesser abilities. Peng Siu* in particular, was anxious during the interview, checking that her responses were understandable. She referred several times during the course of the interview of her concerns that the interview recording might not be clear:

*“...I was so worrying about that then I just worrying, if I be laughing (because) of my English ... I (hope you) understand my conversations as I really worrying about my accent...” Peng Siu *(M)*

As of August 2014, her normalised GPA was 3.38; her fears at being misunderstood either in her written work or in everyday conversation, were unfounded. Peng Siu* (M) still had some issues with trusting her abilities. She was trying to overcome this doubt, stating:

“...even studying my assignments the first times that was good, but when I do even more and more and more and then, is this answer right for this question, so I research more then I research more and more and more and the time is gone and then finally the assignment day is coming and I think ‘Oh my God I need an extension’ and then I get an extension and do again.”

Valerie P* (H) had no such fears. She was very clear in her understanding of the requirement of studying and the long-term benefits to be gained on completing of her qualification. Her normalised GPA score as of August 2014 was 4.2. Valerie’s opinion of the ideal way to manage her studies lay in clear and delineated logistics.

*“...I think it’s all about time management. Before I started this course I knew it, because I have moved directly from studying *** into *** so, you know, that momentum is still there, I’m studying and managing time, and yes I knew it was all about time management...” Valerie Y*(H)*

Stankov *et al.* (2014), along with Skaalvik (2002) argue that confidence and self-esteem co-join to create an individual framework of importance which include both internal and external self-evaluation and comparisons. Such comparisons allow the individual to monitor their actions, continuously adjusting this view as new experiences occur and the results incorporated into the overall perception of ability.

In doing so, a measure of resilience is established. Claxton (1999, p. 34) maintains this to be a critical point in the development of the self. Initial research into this area carried out by Carol Dweck in 1999 amongst high school students, identified a “mindset” of ability. This early research indicated that pupils with more resilience tackled adversity with a positive outlook, viewing it as a challenge. The less resilient pupils saw adversity as a limitation, consolidating a deeply buried perception that they were not as able as they imagined themselves to be.

The findings of this study have uncovered several new aspects of understanding into the psychology of how students approach their studies; the ‘why’ rather than the ‘how’ of learning. In any research project, the variables nearly always indicate the differences between people, so it is crucial to look for patterns of similarities. Similarities in this study have uncovered some fascinating observations into student behaviour, which will be considered further in Chapter 6.

5.22 Summary

Both the survey data and the interview material were able to provide insight into student perceptions of perceived ability as well as allowing areas of inconclusive results to be probed in order to clarify the nature of such gaps. As quantitative data

can give one aspect of a result, the findings from qualitative material can often be the cloth allowing a brighter sparkle to expose a more tangible sheen of a group of effects.

In this study, the research sought to investigate the relationship between Academic Sustenance and Academic Confidence. This relationship, as proposed in Chapter 2, appears to comprise of a number of elements, Self-efficacy, Determination, Stamina and Resilience. These elements in combination are considered to be the core constituent, able to enhance and bolster an individual's Academic Confidence. In doing so, the level of OAC allows that person to deal more readily with academic challenges.

The first section of this chapter presented the results of the quantitative analysis, establishing the basis for an Overall Academic Confidence (OAC) score, which was used to rank respondents into the categories of High, Mid and Low. The second part of this chapter then examined the qualitative material, from which refinements to the model detailing the relationship between the elements of Academic Sustenance and Academic Confidence were comprised: Self-efficacy, Determination, Stamina and Resilience. From these elements, four themes emerged, Encouragement, Drive, Grounding and Efficacy (EDGE).

Each of the themes demonstrated a deeper aspect of how respondents approached their academic commitments and were illustrated by comments underscoring the way in which the academic confidence was affected by the type of academic experiences considered as both positive and sustaining. Such experiences it was surmised assisted in an accumulation of positivity, which then affected an individuals' ability to deal more equably with everyday challenges, as well as academic obstacles and complications.

High OAC-ranked respondents reported consistent responses when reflecting on incidents, which suggested more positive sustenance giving opportunities. Respondents with lower OAC also gave consistent responses when recalling more adverse experiences. By using the qualitative material to probe more deeply into areas of the factor analysis less conclusive than others, a clearer construct was

obtained of the core through which Academic Confidence could be affected by sustenance-based occurrences.

The analysis also indicated that respondents with lower levels of OAC could develop higher levels with exposure to academically sustaining experiences. The factor analysis reported a positive change in OAC across a semester; this was examined in the interview data as being linked with the element of Encouragement, particularly from peers. It was also found that Drive and Efficacy were important determinants of the level of success respondents reported when managing their academic workloads and producing work at the required standard. The theme of Grounding was equally important, as the capacity to remain focused and directed was reported across all OAC rankings, as necessary in order to engage fully with individual objectives.

These four themes, recapped as “EDGE”, mark an important distinction in the relationship students’ have with their perceptions of ability. Those students with a lesser EDGE seem to focus on a more negative view of themselves and their abilities, whilst students with a more balanced EDGE maintain a more flexible perception of their likely abilities.

These themes will be explored in more detail in the following chapter, where a closer examination of each will establish the connections between these and sustaining events.

5.23 Final Thoughts

The qualitative phase of this study highlighted the benefits of exploring data in order to access a different stratum of information, highlighting aspects of the statistical data appearing ambiguous or indistinct within the sampling. Given the opportunity to probe respondent reactions to particular experiences and to expand and clarify those experiences, an image of the relationship between Academic Confidence and the manner in which Academic Sustenance can influence it, could be brought into sharper relief.

The next chapter presents the discussion as to how each of the themes emerging from the interview data interrelate with the factors emerging from the quantitative data might cumulatively build to create positive, sustaining academic experiences.

Chapter 6 Findings

6.1 The Core Components of Sustaining Experiences: the basis of Academic Sustenance

The previous chapter presented the results of the data analysis for both the qualitative and quantitative phases of the study. A number of factors and independent variables emerged from the analysis, indicating certain influences on student confidence, which could be attributed to Academic Sustenance. As suggested in the literature reviewed in Chapter 2, the manner in which an individual creates and establishes their perceptions of self are influenced by authority figures and experiences, which affect perceptions of ability. Academic Confidence therefore, bridges the pillars of self-efficacy and self-concept, in essence, signposts a way in which to ascertain how someone considers their likelihood of success when undertaking academic tasks.

The patterns identified in the factor analysis demonstrated that students had varying perceptions of their prospects of performance. Indeed, some students had quite different levels of Overall Academic Confidence (OAC). By looking across the responses, the interview material analysis themes indicated that those students reporting high levels of OAC hold particular beliefs and expectations in common and that these may have been developed through past, positive academic experiences. Equally, those students reporting different levels of OAC may have formed their perceptions through prior, negative academic experiences.

These levels suggest that the type of educational nourishment given at formative times during an individual's scholastic progress may play an important and critical role in creating a sense of academic confidence sufficient to sustain them across increasing levels of educational difficulties. The formation, source and ultimate effect of such educational nourishment conceptualised as Academic Sustenance will be discussed further in this chapter.

The thematic analysis of the interview data also considered the relationship between an individuals' OAC and the independent variables identified in the factor analysis: these being a person's age when undertaking higher education; being a trailblazer, that is, being the first in their family to undertake HE and also the requirement for special educational needs (SEN). The influences of gender and fee paying status also were indicated as having some relationship with OAC.

The themes identified in the interview analysis: Encouragement, Drive, Grounding and Efficacy (EDGE) are important as they identify the psychological aspect of OAC and therefore help to establish why and how an individual holds the sensitivities and pre-conceptions of ability indicated in the interview material. This chapter will explore these themes in relation to the four factors, as a justification to explain different levels of OAC and in addition, determine if the concept of Academic Sustenance does underpin perceptions of Academic Confidence.

As discussed in Chapter 3, if the interviewee asked what their level of Academic Confidence was, according to their survey results, the response was re-framed as a reflective query, to ask: "What do you think it was?" Most students were able to evaluate their level quite accurately. In fact, several students were quite self-aware and recognised areas where they might refocus areas of behaviour into more positive outcomes. This aspect of determination and prediction will be discussed later in the chapter.

6.2 Organisation of the chapter

This chapter is organized into several sections. Section 6.3 is concerned with the four factors of Overall Academic Confidence, Academic Performance, Time Management, Social Performance and Workload Management. Each of these factors is subdivided into the additional classifications discussed in Chapter 2 as influencing academic confidence; namely Age, First Generation University student (FGU), Special Educational Needs (SEN) and Student Status (SSt); these are then related to the themes identified by the interview materials' thematic analysis (TA), categorised as

'EDGE'. A revised model of this relationship is presented, illustrating the relative relationships.

The final section of the chapter looks at the similarities between experiences within the levels of OAC-ranked respondents and considers the influences of diverse educational experiences, family influences, the pressure of trailblazing and the need for goals or ambition. The chapter concludes with the notion that the existence of a positive, learner-based environment could be recognised as a major contributing factor to the development and strengthening of academic confidence.

6.3 The Factors of Overall Academic Confidence and their relationship to Academic Sustenance: the influence of 'EDGE'.

As discussed in the overview to this chapter, this section will consider each of the four independent variables identified in the statistical analysis and the responses students with different levels of OAC gave in each. To recap, the item loadings are shown in Table 6.1, illustrating the stem and item loadings. The factors in order are: Academic Performance, Time Management, Social Performance and Workload Management. The model with its influences and components of the FA and TA could be depicted in the following way in Figure 6.1:

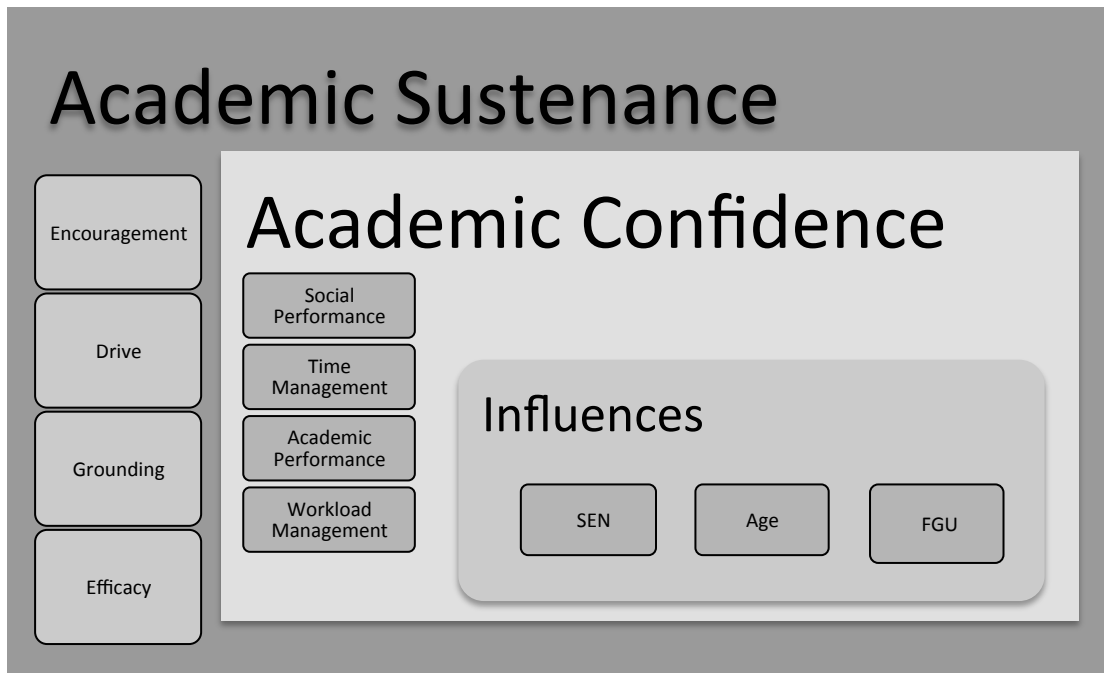


Figure 6.1 Relationship of Academic sustenance and Academic Confidence

6.3.1 'Encouragement' and Academic Performance

As indicated in Table 6.1, Academic Performance was the largest factor identified, consisting of nine items, the analysis of which was discussed in Section 5.7.4 of the previous chapter. The overall theme of this factor reflected how students perceived their management of their studies, with a view to being successful in meeting the necessary standards. There was a significant gender effect: $F(1,250)=14.8, p < .01$ (see Section 5.7.4 in Chapter 5 for specifics) as well as a significant interaction term: $F(1,250)=5.66, p < .018$. The gender effect will be discussed further in this chapter.

Table 6.1 Item Loadings in Factor Analysis

Item	Question stem: "How confident are you that you can..."
20	Pass assessments at the first attempt
16	Write in an appropriate academic style
7	Attain good grades in your work
15	Produce course work at the desired standard
11	Understand the material outlined and discussed by you with lecturers
12	Follow the themes and debates in lectures
4	Manage your workload to meet course deadlines
23	Produce your best work in course assignments
2	Produce your best work under examination conditions
6	Attend most taught sessions
24	Attend tutorials
18	Be on time for lectures
10	Ask lecturers about questions they are teaching during a lecture
3	Respond to questions asked by lecturers in front of a full lecture theatre
8	Engage in profitable academic debate with your peers
9	Ask lecturers about the material they are teaching in a one-to-one setting
5	Give a presentation to a small group of fellow students
17	Ask for help if you don't understand
14	Read the recommended background material
13	Thoroughly prepare for tutorials
22	Remain adequately motivated throughout
21	Plan appropriate revision schedules
19	Make the most of studying at university
1	Study effectively in your own independent study

Students with High and Mid OAC-ranking saw no impediment to attaining good grades (Item 7), comprehension of lecture material and themes (Items 11 and 12), producing quality course work (Item 23) or producing high calibre work under exam pressure (Items 23 and 2). Respondents had positive feedback about assessment, discussion group work as well as affirmation about their progress from faculty:

"...I had good lecturers, I mean (my teacher) said that it was excellent. She said I did a really good job on it..." Helen A (H)*

"...The other two lecturers are brilliant. Oh (at) tutorials, yeah, they are just brilliant..." Caroline A (M)*

Less academically confident students had concerns about their abilities, which increased their apprehensions in unfamiliar situations:

*“...I feel like I might be asking a silly question, you know, or it may have been answered in different words previously, um, yeah, just having confidence in my own ability...” David B *(L)*

“...When I went to [a previous, different university] I just couldn't cope. It was overwhelming...” Lisa C(L)*

Bandura (1997) suggests that such apprehensions are overcome through mastery experiences, which positively correlate with students' self-efficacy and confidence beliefs. In the case of Lisa C*, her belief in her ability to tackle unknown requirements is not exemplified by her actual ability. Twelve months after the qualitative data collection, her GPA score was, as mentioned previously, 3.79. It is evident that in this case, Lisa C* had overcome her uncertainties of the unknown academic world and developed a satisfying set of skills allowing her to function comfortably in her new environment. The specifics of the experiences contributing to this shift in both perception and actual ability, along with a possible rationalisation will be discussed further in section 6.3.2 of this chapter.

As Chapter 2 considered the place of previous academic experiences in understanding academic confidence (please refer to Chapter 2, section 2.15), an under-reported emotional element may be influencing an individual's perceptions of their abilities and ultimate chances of success. Valerie Y*'s observations in particular, indicated a level of self-assurance whenever asking for clarification and seeking assistance.

“...I don't have the concerns as some of the other students have. I don't know why that is but I don't. I mean I follow everything and if I don't understand I quickly send an email or a question. I put it out in the forum and if I get the reply that's alright or I email the lecturers involved...” Valerie Y (H)*

Valerie Y*'s assertion that she does not know why she remained unconcerned about the potential for misunderstanding or misconstruing the requirements of either assessments or other tasks, is perhaps one of the pointers indicating the capacity of Academic Sustenance to redress in-balances in academic confidence. Throughout her responses is a strong theme of strength and self-sufficiency. Martin (2014) and Stankov *et al.* (2014) consider the effect of confidence to be strong predictors of performance. Indeed, Valerie Y*'s perception of her performance contrasts strongly with students such as Pamela R* or David B*, with Mid or Low-ranked OAC.

"...I don't feel comfortable with what I'm learning at the moment (because) it is learning and I may feel that way (more confident) when I'm finished ... I hope I do..." David B (L)*

"... even though I do have like the experience side behind it, its kind of hard getting back into the mind-set of studying again. Um, yeah, like being out of school for so long, like I've never had to, well after high school other than doing like the courses, take it (coursework) home and do it in your own time..." Pamela R (M)*

Stankov *et al.* (2014, pg. 10) suggests that strong self-concept helps establish a sense of competency and predictions of achievement (please refer to Chapter 2 for more detailed discussion of the literature of self-concepts). Possessing certainty as to a desired outcome is indicative of self-efficacy, both constructs bridged by academic confidence. Where anxiety about performance is experienced, students' doubt in their ability begins to escalate. Stankov *et al.* (2014) suggests that self-doubt therefore is the opposite pole of both self-efficacy and self-concept.

Strategic instances of 'Encouragement' would therefore have a key role in building and supporting the development of positively orientated self-beliefs. Equally, it can be theorised that a lack of 'Encouragement' would build contrary beliefs, that is, create a belief of less capable abilities. The interview material revealed

instances where negative past experiences had not only impacted the student but also continued to resonate in the face of returning to academic pursuits:

“...I know I’ve said to my mum ‘How come you never encouraged us to go to University or something, like when I left school?’ It just wasn’t something on the radar for me and we never spoke about it, it was never talked about at home...” Patricia L (L)*

The level of feeling stemming from such experiences suggested more extensive emotional damage than a curtailed education. However, High OAC-ranked respondents with similar gaps in their education reported different reactions to such events:

“...my last year of high school was a stressful time. My father passed away suddenly and my younger brother [with undiagnosed mental illness] was really upset. I had to take on a lot of responsibility so I missed a lot of school that year...it was hard but I got through...” Neesa A(H)*

The difference between these responses highlights the difference between recipients provided with ‘Encouragement’ as a core constituent of Academic Sustenance. Neesa A* was the recipient of regular sustaining experiences in the form of parental reinforcement and support, in contrast for example, to Marion C*, who received an almost negligible amount. It is suggested that Academic Sustenance and the influences of ‘EDGE’, in this case, ‘Encouragement’, does provide a strong rationale as to how some students were able to deal with academic challenges more adeptly than others and how AS might be a significant booster in assisting less confident students.

6.3.2 ‘Encouragement’ and its influence on ‘Drive’

The component of ‘Encouragement’, when either supplied or withheld, also emerges as an influence on other facets within the purview of Academic Sustenance.

Respondents recalled incidents when, heartened by a meaningful authority figure, their outlook shifted from a pessimistic to a more optimistic view of their abilities. The case of Lisa C* (please see the overview in section 4.5.3 of Chapter 4) illustrates this shift, as she transitioned from a student who was, in her own words:

“...a bit of a ratbag...”

to the realisation that:

“... I want to make something of myself...”

When reflecting on this evolution, Lisa C* identified the tipping point as the moment from which mentoring by a particular, favourite teacher began. Skaalvik and Skaalvik (2002, p. 233) point out that student’s self- concepts could suffer due to previous academic experiences. They also speculate that such adverse effects may distort the student’s actual view of themselves, particularly in relation to their classmates. In this case, Lisa C*’s perception of her academic self was coloured by association from an older sibling, whose performance was apparently seen as less than desirable by faculty. The preconceptions formed from one sibling to the next appeared to influence both the view held of Lisa C*’s likely ability and actual performance, so much so that she decided not to counter those preconceptions:

“...this teacher actually, she had taught my brother and I think she had it in for me because he was so bad. So in the end I just thought, well she already thinks bad of me, I’ve got nothing to lose or prove, yeah. Lisa C(L)*

Her academic performance and outlook towards secondary education as a result was poor, until the opportunity to work with a less polarised, more supportive authority figure took place, when as Lisa C* points out:

“...that wasn’t really who I was and I was just living up to where they put me...”

Through the influence of positive support and sustaining experiences offered by her academic mentor, Lisa C* was able to realise other qualities within herself:

“...she said I will help you and she got me through everything and whenever I’d say ‘Oh maybe I’m just you know not up to the same standard as everyone else’, she would say ‘no, you’re really bright’ and she would go ‘no, you’ve got strengths that you’re not seeing’, so she was amazing and I don’t think I would have gotten through that...”

This experience and similar were recalled as both powerful and transformational by respondents. Parental encouragement was also seen as a strong influence on respondents’ academic efforts. High OAC-ranked respondents drew support from parents in several ways, either from direct, affirmative activities such as discussing homework or from generalised support by way of reassurance and comfort:

“...my father was always on about getting a ‘good’ education to be a doctor or a lawyer or accountant so when I went to uni, I tried hard to do everything as well as I could...” Neesa A(H)*

Lack of encouragement resonated deeply with Low OAC-ranked respondents, inasmuch as they reported experiences underscoring more unfavourable views of education:

“...I can say there was maybe a year that we didn’t even end up in school. We were never consulted as children. As far as we knew we were going to school and you’d just get settled and they (parents) ’d be up and packing the car the next day and we’re gone ... we never got a solid foundation...” Marion C (L)*

As discussed in Chapter 2, section 2.19, Deci and Ryan (2012) note that the combination of renewed belief, increasing competency and autonomy are a fertile

ground for increased motivation, which links to Academic Confidence. The paired T-test results discussed in Chapter 5 (illustrated by Table 5.10 and 5.11) indicated an upward shift in OAC at the end of semester, which concurred with Deci and Ryan's observations on the effect of competency. In Lisa C*'s case, her OAC ranking was categorised as Low at the beginning of the semester, increased at the end of the first semester and one year later, when GPA scores were collected, demonstrated actual performance levels in line with her improved OAC. Please refer to section 5.9 in Chapter 5 for specifics of these shifts and to Chapter 4, section 4.5.3 for details of Lisa C* and her background.

At this stage of the discussion, it can be seen that sustaining experiences in the form of positive, supportive actions from mentors such as teachers and parents, offers a useful rationalisation into understanding how some students manage the transition into HE, through tapping into their reserves of Academic Sustenance and to some extent, drawing on 'Drive' to further both their abilities and performance.

Another consideration for this process is the effect of Age as a variable and its relationship to the patterns identified in the FA of Academic Performance and Workload Management, which will be discussed in the following section.

6.3.3 The "Age" effect and Academic Performance

The thematic analysis also identified areas of apprehension recounted by students in all OAC categorisations, which appeared to be influenced by the variables of "SEN" and "Age" as identified by the statistical analysis in Chapter 5, section 5.9.1.

"...throughout high school and primary school, you know if I was picked on for being slightly more academic or being overweight or not being the best sportsman, because I don't fit the mould, you know I had two choices, I was either going to let it get to me or I was going to bounce back..." Simon J (H)*

“... on the morning (when classes began) I was a bucket of nerves and I almost missed out because I went to the wrong location because I had a letter sent to me and they changed the location and I didn’t get the second one, but my whole experience from applying to the EPP to Day 1 was I was just a bucket of nerves, completely anxious about it, very scared...” Kevin R (M)*

In the case of David B*(L), he was able to articulate his recognition of the necessity to make a conscious decision to acquire different behaviours in order to achieve his goals. He was also cognisant that new behaviours would need to fit with accepted practice and that those behaviours needed folding into long term goals in order to be rationalised.

“...there’s this University thing ... as well, so I’ve had some days where I’ve thought, geez I don’t know, what am I doing this for... convincing myself that I still have the capacity to learn...” David B (L)*

David B*’s concerns were not an isolated instance. Other interviewees also recognised the importance of mastering unaccustomed tasks, developing an awareness of a different environmental culture and complying with a new set of behaviours in order to fit in. Stankov *et al.* (2014, p. 11) comments that: “confidence is sensitive to task demands” and this is evident in David B’s comments as well as regarding his perception of the mental adjustment necessary for returning to academic routines.

Michie *et al.* who suggest students may undergo a self-identity crisis because of social risk, captures one of the issues suggested by the ‘Age’ effect. The social risk, initially identified by Webb’s preliminary research in the early 1990’s (see Michie *et al.* 2001, pg. 459), is concerned with the association of those who self-identify as mature

students. Consequently, such students judged their return to education more critically than direct entry, younger students.

“... I was confident that I would be able to learn the material but I just wasn’t confident that I would be able to put it into writing and reflect that I knew the material...” Patricia L (L)*

“...I have no idea of what an academic curriculum was, so ... I didn’t think I would be able to produce it straight away. I’m hoping that I can gain those skills...” (Marion C (L)*

It is interesting that in both accounts, each respondent’s awareness of possible academic shortfalls is revealing in that even though both respondents had been working successfully within their respective professions for many years, both are quick to point out gaps in perceived ability. Is this a reasonable recognition of lack of critical skills or could it be due to a deficiency of essential support at a critical educational juncture, which continues to resonate? Was the absence of Academic Sustenance at that time, the element that might have tipped the scales in creating a more positive outlook? Would the ‘EDGE’ influences of Academic Sustenance and the provision of positive academic experiences therefore assist in smoothing the way forward and creating resilient and thus, more academically confident students in the future?

Certainly, as both Claxton (2002) and Martin (2009) have pointed out (see Chapter 2, section 2.4.2) negative estimations of ability do not always imply defeat. Both Claxton and Martin concur in stating that in essence, resilience is a quality honed by disappointment. Indeed, it is the ability of being able to recover from disappointments and to work around whatever obstacle might impede the path to progress, which sets apart that individual. Marion C* would personify that spirit as although she had endured what might be considered very difficult odds of succeeding in her chosen profession (Health Services), she had also realised a burning ambition, to undertake and achieve a university qualification. She commented:

“... you know, when I signed up to do this I made a commitment to me...” Marion C (L)*

6.3.4 The influence of Grounding and Age on Academic Confidence

The discussion thus far has recognised that the variable of Age, determined as students aged up to and including twenty-two years and those students above the age of twenty-five (please see Chapter 5, section 5.9.1 for specifics) indicated a relationship between Academic Performance, Encouragement and Workload Management. To recap, ‘Grounding’ relates to the skills necessary for achieving and maintaining academic success, for example, effectively researching a topic or successfully structuring and arguing a point of view in an assessment piece. ‘Grounding’ also has a psychological aspect, as respondents also identified a mental shift in the way they thought about their studies.

The discussion has already considered the way in which High-ranked OAC respondents approached their studies, as compared to less confident respondents. When the survey data was collected, respondents had not yet begun the taught phase of their studies so had yet to experience the reality of the demands of HE. Re-entry students indicated higher levels of uncertainty about their predicted abilities, in contrast to their younger classmates (refer to Figure 5.15 in Chapter 5). Paunesku *et al.* (2015) suggested that this might have been due to lack of recency; that is, respondents with less familiarity of the specifics of HE reported lower levels of confidence. Entwistle and Ramsden (2015) point out a higher level of familiarity with essentials of academic tasks builds self-efficacy and competency beliefs, therefore giving younger respondents with more recent experiences higher overall confidence levels. Those levels of confidence however, were lower in Workload Management and Social Performance, in comparison with Re-entry respondents.

What is suggested at this point is of the manner in which Re-entry students understand and comprehend their abilities built through experience in other arenas, such as in workforce skills. Being able to manage deadlines competently, synthesise

and explain complex ideas clearly and succinctly and take part in discussions with peers about the merits or not, of aspects of a particular point of view, are skills which are essential in the contemporary workplace. People with these skills sets are in high demand and undertake the majority of knowledge work requiring specialised insight, so it is not unreasonable that outside of academia, there would be a crossover application relevant for HE. Indeed, those High OAC-ranked Re-entry respondents commented that such skills were invaluable in managing their academic work:

“...two most important things really, persistence and being able to deal with structured feedback...” Elaine K (H)*

Another aspect to the effect of independent variables on Academic Performance was of being a first generation university student. This in combination with the variable of Age is discussed in the following section.

6.3.5 The ‘First’ effect and Academic Performance

The statistical analysis determined that the independent variable of ‘FGU indicated little effect on academic confidence; however, this did not appear to be giving a well-defined picture of the implication of this finding. The qualitative inquiry was able to probe this aspect of the study more thoroughly. What was noteworthy was that respondents at all levels of academic confidence who had reported being the first in the family to attend university did express tentativeness when asked about their response to Items 16 and 20; the first two items in the factor of Academic Performance. The following typifies comments made by respondents who were family trailblazers. Trailblazers in this context, refers to those who pioneer a particular path, in this case, the first to tackle Higher Education (HE).

“...It’s hard because I have I haven’t got anybody with prior experience to go to so I really have to – even getting parents to read over drafts or come up with ideas to help – they don’t really know how to say ‘Well I think that from an academic point of view that, you know, that’s incorrect or that’s right’, they just try the best they can...” Lisa C(L)*

As discussed in previous sections of this chapter, the influencing effects of being a Re- entry student (Age), being a trailblazer (FGU) or having additional educational needs (SEN) were highlighted as having some influence on OAC. Low OAC-ranked respondents indicated one or more of these variables. Although the FA in Chapter 5 indicated that the variable of “FGU” had little effect on the present data, there appeared greater within-group variations than the quantitative work suggested. The interview data was able to explore this variable, asking each student if they found any issue with the demands of higher education.

The following comments are indicative as to the difficulties of being unable to discuss their studies critically with family members.

*“...Because my parents were unable to help me. English was their second language and all throughout my primary school education my parents ... you know I would say ‘how do you spell da-da-da?’ and my mum would be like ‘how does it feel?’ because **** is the sort of language that’s very phonetic so how does it feel and that’s how you would write it. And so I found quickly that they weren’t going to be a useful resource for me ...” Simon J* (H)*

“...In the home environment I wasn’t really encouraged but I wasn’t discouraged but my parents didn’t believe in praising for anything so it they didn’t really make a deal about it whether I did things or didn’t do things...” Deidra V (H)*

Such observations are suggestive of how supportive experiences may not be available when looked-for, however, Simon J* was in receipt of positive

sustaining experiences from workplace peers as well as his classmates. Although initially uncertain in the academic environment, he found himself at the centre of a group of classmates who provided mutual support and assistance:

“...we were quite literally thrown together by chance and it turns out that we’re really quite good for each other. We balance each other out and we clicked immediately...” Simon J (H)*

Evident in in this example is the way in which the group formed a cohesive unit and offered support and encouragement to its members. It is outside the scope of this thesis to investigate whether or not being ‘First’ in ones family engenders a need to form an alternative source of support, thereby creating the type of sustaining experiences helpful for developing academic confidence. It is the finding in this study that a number of the interview respondents who were first generation university students were also members of successful study groups, suggesting a link between ‘FGU’ and ‘Encouragement’. This relationship would benefit from further exploration but for the purpose of current discussion, is outside the scope of this thesis. The purpose of additional research into likely links between first generation university students and ‘EDGE’ components will be discussed in Chapter 8.

Less confident respondents such as Caroline A*(M) however, found greater difficulty in finding a supportive environment:

(On joining in with student groups) “... Well, it would be nice too because they say ‘Oh get involved in University’. I mean I don’t know, maybe I’m just having a whinge (on asking someone to join with her) ... “...Oh yeah, I’m sure it does, yes, but I couldn’t inconvenience someone.” Caroline A (M)*

Feeling sustained through either acquiring appropriate skills (Grounding) or through authoritarian or peer group support (Encouragement) appears to offer significant reassurance and comfort to those students struggling to find their place within an unfamiliar environment. The relationship between these components of AS and Academic Confidence appears to have great clarify and substance. This will be

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discussed in the following section, where the effect of 'Grounding' and trailblazing are considered when viewed against the backdrop of Academic Sustainance.

6.3.6 The 'First' effect and 'Grounding'

The lack of appropriate academic skills is one aspect of HE where a number of respondents voiced concerns about their abilities. It is interesting to speculate on the number of positive and negative experiences needed to create either a cushion of resilience, as Claxton (2002) suggests or to manifest a scenario where the student has a recurring series of setback or mishaps where they find themselves unable to cope with obstacles or adversity. People experiencing stressful incidents in their lives often dream for example, that they are about to sit an exam, without the slightest idea of the topic. As Chapter 2, Section 2.7 in the literature review intimated, the effects of previous experiences continue to resonate within the individual, so it is not surprising anxiety resurfaces in the form of memories of unpleasant educational incidents.

Marsh and Seaton (2013) comment on the way in which people compare themselves academically, based on their perceptions of their abilities. Respondents who expressed concerns as to their ability, particularly with regard to Items 15 and 12, describe this as the basis of their uncertainty:

"...I need a little bit of time to think, process, maybe find some facts and things like that. Yeah, it just takes me a while to perform that way..." David B (L)*

Following themes and debates in lectures (Item 12) was a recognisable area of concern, uncovered through the interview data. Pamela R* (M) typified not only the concerns of re-entering HE after some time but also of the comparisons made regarding younger students abilities:

"...kind of like the whole 'what if I fail' and you know if I don't understand ... cos I was saying to like my fiancé and my mum, 'What if like they're (faculty and classmates) talking to me and I

don't understand what they're saying and its just going straight over my head...?" Pamela R(M)*

"... I was very anxious about beginning Uni because I've not been to Uni before. But my understanding was all these smart people go to University and even smarter people come out..." Kevin R(M)*

Similar performance pressures were noted in High OAC-ranked students, who also indicated some anxiety in coming to terms with required criteria of assessment. Manuel P* (H) affirmed the difficulty inherent in meeting new performance standards:

"...(I) just find it a bit hard here because with the time I've been here, it's like a short time, so I get sometimes hard with the English, I kind of like making writing here with my low English, it's very hard, so I just try to get the highest mark I can but it's very hard, yeah..." Manuel P(H)*

What is evident at this point is whereas respondents in general commented on the inherent pressures of mastering unfamiliar skills, High OAC-ranked students appeared to have less concerns about actual performance; instead anxieties appeared more focus on the level of performance rather than the actual performance. That is to say, those respondents with higher levels of academic confidence appeared less concerned with the calibre of their actual performance, but rather, how they might see results. Hanley *et al.* (2015) point out that setbacks often re-energise a person when confronted by challenge, allowing them to think around a problem in order to craft a new and innovative solution. It is suggested that a source of re-calculation of approach is part of the effect of Academic Sustenance, in that the nature of previous, sustaining experiences allow for more affirmative attitudes in the face of adversity. Those respondents, who on entering university had undergone helpful and encouraging experiences through peer support, exemplify this occurrence in this study.

In the case of Marion C*, as the semester progressed, positive sustaining experiences from classmates, teaching staff and university and external services

helped strengthened both her personal and academic confidence to the point where she was able to offer support to other students.

“...I’ve helped some of the Asian students ... I met one Asian boy, four part-time jobs and he was frightened to tell them that he was getting the wrong amount of money because he really needed that money and he was, you know, struggling, he was really struggling. I said to him, you tell me your name, ring me on Mondays. He was helping me with English. His grades went up from 5.5 to 7.5. And I had to point out to him that I’m struggling with English ...” Marion C(L)*

What is most relevant about Marion C* is that with the many problems and setbacks encountered in her life, she managed to meet and overcome these challenges and persist in attaining her career and educational objectives. One year later, she was still enrolled and continuing her studies.

6.4 The factor of Time Management and the ‘EDGE’ stimuli

As explained in the FA of the previous chapter, the factor of Time Management was found to have three items loading onto it: Item 6, Item 24 and item 18. Item 6 was concerned with session attendance; Item 24 was concerned with tutorial attendance whilst Item 18 was concerned with being on time for lectures. Thematically, the factor identified the perceptions held by students as to how they handled their academic timeframes. The histogram for the factor, illustrated by Figure 5.5 in Chapter 5, indicated an overall positive trend with a standard deviation of 2.239.

As illustrated in Chapter 4, Table 4.7, there were 4 Low OAC ranked students in the interview sample. All were Home students, according to their student fee status: Marion C*, Lisa C*, Patricia L* and David B*.

Respondents reported that travel distances or physical injuries impacted effective time management abilities. Extant literature (see Kaplan and Patrick, (2016), Reed *et al.* (2015) and Othman *et al.* (2016) suggests that such students might be

unable to draw on prior modelled behaviours in order to build the level of familiarity needed to adjust to the requirements and demands of higher education. For this reason, responses to time critical items on the ABC survey were probed in order to investigate the suggestion that past negative academic experiences might have a more significant and emotional impact on a students' perception of their abilities than previously considered.

"...If it was a perfect world I could manage it well and time could work to me but it doesn't... so then you're exhausted and can't take in any information, so it limits you..." Marion C (L)*

The literature as considered in Chapter 2, Section 2.12 suggests when an individual exhibits a "helpless" response pattern to adversity, it becomes increasingly difficult to change such a pattern of responses. Dweck (2006) points out that this vulnerable response pattern often indicates low retention numbers as students drop out at critical times of the year.

It is suggested that through lacking 'Encouragement', or sufficient 'Grounding', students fall into patterns of behaviour based on the degree of difficulty perceived in managing an aspect of their study. It becomes easy to shrug off an inconvenience rather than work around it. High OAC-ranked students looked for ways to maximise their time on campus, choosing to engage with their study groups, thereby drawing on peer support and encouragement to help with study workloads.

"...we would sit in the café and we would do our readings before class..." Simon J (H)*

“...Sit with a friend, (and) look at the things you can do and the things that you can’t do, see how you can go and overcome them... So just get up the next day and do some more and know you’ll get there...” Deidra V(H)*

Lower OAC-ranked respondents reacted in one of two ways. Either the difficulty of the situation, whether it was an aspect of studying such as having to submit assessment pieces via unfamiliar mediums such as an e-Portfolio, or presenting their work in front of peers, took on a greater significance so as to preclude progress:

*“...I’m doing a ***** PowerPoint group and then there’s only one international student in that group and the other boys are from the Australia, they are Australian, so when we are having a meeting in the class and I do realise that I’m the only one so I can’t...(I) feel isolate...” Peng Siu* (M)*

“...it’s just the thought of being judged, whether that’s a silly question, I know no questions are silly questions, but just the thought of being judged...” Pamela R (M)*

6.5 ‘Efficacy and Workload Management

The theme of ‘Efficacy’ identified in the thematic analysis, discussed in Chapter 5, section 5.2 has its basis in the notion that respondents with a solid understanding of the skills needed for particular academic tasks, coupled with their sense of belief in their ability to accomplish that task to the required level, also contained a suggestion of resolve of purpose. ‘Efficacy’ therefore has a dual aspect: ability and purpose. Martin *et al.* (2015) Bong and Skaalvik (2003) and Jordan *et al.* (2015) suggest that such resolution can be built through mastery. Without the understanding of necessary academic skills, it is difficult to achieve the appropriate mental resolve, an issue of which High OAC-ranked respondents were aware.

“...If they (students) don’t have confidence in their ability or to learn or to be able to handle themselves, then they’re just not

going to ... they're not going to act to their full potential really...."

Elaine K(H)*

Less confident respondents, as discussed previously, worried about their skills being equal to the requirements of HE. In particular, being able to debate weekly reading topics or offer a pertinent opinion during lectures when asked appeared to be a source of concern and apprehension:

"...the very hard thing is that there is no focal answer ... I'm feeling it is difficulty ...because I need the right or proper answer to the question but I think the lecturers or tutors they don't expect that kind of answer..." Peng Siu(M)*

Re-entry students too, were concerned about prior experiences, anxious that their task knowledge would cover relevant academic techniques:

"...[previous experience] TAFE wasn't as stringent as that, so I think that's the biggest notable difference... referencing here [at university] is very much more detailed and has to be correct right down to the formatting..." Elaine K(H)*

Schunk and Bursuck (2015), Orr *et al.* (2014) and Jackson (2003) argue that building self-esteem through ability, thereby creating a more robust sense of self-efficacy, is important in the creation of an individual's self-concept. As the literature review has considered in section's 2.61 and 2.62, self-concept's representation of the likelihood of success needs a continuing supply of reinforcement in order to consolidate. It is here that the conceptualisation of Academic Sustenance, with its orbiting components of Encouragement, Drive, Grounding and Efficacy (EDGE), would indeed provide such reinforcement.

The following section discusses the relationship between Academic Sustenance and performance perceptions, in order to consolidate the conceptualisation of AS and underscore its relationship to Academic Confidence.

6.6 Consolidation of EDGE themes with the factors of OAC

As discussed earlier in this chapter, there appears to be an association between successful time management and the themes of 'Encouragement' and 'Drive', meaning that respondents with more instances of encouragement as part of sustaining experiences appeared to have vigorous levels of enterprise and effort, and therefore, able to manage their time more deftly. Less confident students appeared to focus on difficulties rather than strengths, suggesting that the influence of 'Drive' in particular, was less accessible and therefore, likely to impact effective Time Management.

"...Spelling is not my big point. OK. My father is a [subject] teacher and I can't spell. ..." Caroline A* (M)

"...that's part of my problem. I don't understand all the terms properly..." David B* (L)

Overall, respondents identified time management generally as being a fundamental skill both in the workplace, as well as academically. Ewing-Cooper and Parker (2013) suggest that students with a more realistic appreciation of the variety of academic tasks would manage their study commitments more effectively. In this study, the variable of FGU would appear to support this notion, as those respondents who were first generation university students did have opposing views of the nature of university from their Direct-entry classmates.

"...I knew coming into Uni that I was very worried, very concerned and very scared. I kind of had a half-belief that I could do it, so I thought well I've gotten here, they've allowed me to come through so I've shown something, but I didn't know what my ability would be..." Kevin R*(M)

What appeared to differ between different levels of OAC-ranked respondents then, was the impact of this or others of the independent variables identified in the FA, which are discussed in the following section.

6.6.1 The 'Gender' effect on Time and Workload Management

Herr and Wolfram (2012) suggested women might be more readily adaptable, negotiating the demands of adjusting to new environments and dealing with adversity. The effects of gender throughout the factor analysis indicated that there was a trend suggesting this to be an accurate generalisation. This was particularly evident with those students reporting High OAC. Five females were represented in the interview sample and their comments about their intentions to manage their time were in contrast with those of the Low OAC respondents.

Valerie Y* (H) was a Re-entry student, answering "5" for all three items in the factor of Time Management, embodied the actions of High OAC-ranked respondents.

"...So you know that the end result is your Bachelor Degree, you know, so you have to work towards it...you know your life experiences makes you more aware about time management..."

"...It's a critical skill... it is really important to have a diary and to note things down and, or make up a timetable ..." Valerie Y(H)*

High OAC-ranked respondents identified and commented on the need for organisation and planning, in order to overcome distance difficulties and manage their time commitments. This was juxtaposed to Low OAC-ranked respondents, who appeared more passive and accepting of some levels of hardship. Pauli *et al.* (2008) suggests that transitioning from different environments might be a cause of psychological conflict. The authors point out that such conflicts might be due to past educational experiences, resulting in hesitancy and tentativeness, particularly for re-entry students. Direct-entry students seemed less affected however, perhaps due to task familiarity.

Thus far, the discussion has established a link between previous academic experiences and support, characterised as 'EDGE' – Encouragement, Drive, Grounding and Efficacy. Such a long-term effect was notable by the attitudes and reflections of those who had experienced either a surfeit or a shortage at some interval in their

education, indicating a reflective awareness of the gaps created by the absence or limited level of encouragement at key stages in their academic development.

“... I don’t think that we were encouraged to set goals so much but we were sort of encouraged to you know, do your best but yeah, there wasn’t ever any real pressure specifically to do this, it was just, you know, when you go to school you do your schoolwork and that’s that sort of thing, but yeah it wasn’t a pressure situation... I just think that they just assumed that we would leave high school and get a job and that’s that ...” Patricia L (L)*

“...there was never any real push, like you have to go to University or you have to get a trade or anything like that...” David B(L)*

In contrast, both Mid and High OAC students were able to point to and acknowledge important levels of support from either families or academic staff.

“...I think that was probably my influence was that dad used to be [profession] and I used to [assist him] as a child, entering competitions and stuff, so I would say that would probably have to be it.” Elaine K (H)*

*“ ... my family was insistent on getting a good education. My father was a *** refugee, who travelled to Australia on a boat under very difficult circumstances. He took a huge risk in doing everything he could to see his children had a good, safe life in Australia. He and my mother expected us to be doctors or lawyers or accountants... these were ‘good’ professions – safe.” Neesa A*(H)*

What is apparent in the accounts from all levels of OAC is the emotional aspect of past academic experiences; such experiences both positive and negative could explain how a student could draw on a reserve of educationally determined nourishment in order to cope with setback or adversity.

6.6.2 Shifts in Perception: from Low to Whoa...

The other reaction from less confident respondents would be to behave in ways similar to more confident respondents, finding they were a surprising source of encouragement and support.

"...I find, that a lot of people do come to me and say 'what are you doing now?' and I'll say 'well I'm going to the library' and so they say 'let's do it'..." Kevin R(M)*

In the case of Kevin R*, his initial uncertainties regarding his academic abilities shifted after a direct, Sustenance-based experience. Nervous about attending university, he sought assistance from an Academic Counsellor at Warratah State* university, in order to clarify expectations and beliefs about workloads:

"...I actually went and saw a counsellor prior to starting the course after that session that we had, the EPP, and I went through with him a strategy on how to best cope with a study plan and managing the workload and that was very helpful..." Kevin R(M)*

This action appeared to have been a tipping point for him, with regards to his OAC. As detailed in Chapter 4, data collection for the ABC survey took place during EPP's, when his level of OAC was classified as Mid. As a result, he was able to partake of a positive academic experience and this appears to have sustained him sufficiently that he was able adjust the adverse perception he held of his abilities to something more optimistic.

The implication is that the effect of previous negative academic experiences strongly influenced the resilience of students to the extent that they look to adverse conditions as being the reason for their under-confidence. Schunk and Bursuck (2015) suggest that the agency of self-efficacy might have an inversely proportional affect on self-concept, leading to a view of ability not necessarily accurate. In this case, provision of more positive sustaining experiences would help to redress the

disproportionate view and assist the student to a more positive stance with regard to both academic abilities and a long-term view of progress.

6.6.3 'EDGE' and Social Performance

By now, the discussion has established the links between the themes of 'Efficacy' and 'Grounding', which assist in establishing realistic academic skills and the practical knowledge of how and when such skills are used to best effect in HE. The themes of 'Encouragement' and 'Drive' served a dual purpose, in that they established conviction in the abilities of the individual that an action when begun with the necessary commitment could be successfully completed. In this way, respondents with concerns as to their ability to engage in academic activities as indicated on the ABC survey, such as Item 8 (academic debate with peers) or Item 5 (give a presentation to classmates) or Item 3 (respond to questions by lecturers in front of full lecture theatre) might improve their level of confidence. Less confident ranked respondents found this prospect daunting:

"...I knew coming into Uni that I was very worried, very concerned and very scared. I kind of had a half-belief that I could do it, so I thought well I've gotten here, they've allowed me to come through so I've shown something, but I didn't know what my ability would be..." Kevin R (M)*

"...I'm not very, I'm not kind of an active person, being like follow somebody, so very quiet, I don't want to participate in a group activity, so maybe ... I'm a bit shy..." Peng Siu (M)*

High OAC-ranked respondents articulated a need to both meet the goals established when undertaking the challenge of HE along with a desire to exceed those goals.

“...Some of them (classmates) have said ‘Oh its OK just to pass’. I don’t have that attitude cos I think if you set out just to pass you might not scrape in. Whereas if you aim higher and you don’t achieve that, well you’re still going to pass...” Deidra V (H)*

Bryer *et al.* (2015) point out that achievement in the form of goals is a strong indicator of self-esteem. It is logical therefore to extend a sense of strong self-esteem to an equally strong perception of self-concept, which as the literature review in Chapter 2 has established, allows for higher levels of academic confidence. Such levels, it is further suggested are augmented by the EDGE components of Academic Sustenance, meaning that it is possible to develop a stronger sense of capability in regard to academic pursuits through positive, sustaining experiences. The specific nature and outcomes as a result of interaction with such experiences could be determined by further research across a broader sample, with promising outcomes for both the individual and the academic body; this extension of research will be discussed further in Chapter 7.

6.7 Summary

The major considerations in this chapter have focused on the themes identified by the TA, which also reflected the findings of the quantitative analysis as both an exploration of the data and as a way of allowing a different interpretation of those data masked by factors lacking a precise explanation by the FA.

As explained in Chapter 4, the purpose of the interviews was to elicit students’ views of academic confidence in relation to their studies and to look more closely at the common elements of those views. Were students articulating different levels of academic confidence related to the factors identified in Chapter 5’s analysis? Additionally, were those students reporting different levels of academic confidence manifesting similar and recognizable elements, which signalled increased or less confidence? Did certain behavioural traits signpost their different levels?

Four key themes emerged from the interview data and were classified according to their main motives, these being Encouragement, Drive, Grounding and Efficacy. The basis for each of these components was clarified in the context of their relationship to Overall Academic Confidence and their link to the factors determined by the quantitative analysis of the ABC survey data.

The themes were then expanded so as to encompass how each fit within the framing of Academic Sustenance and supporting statements from respondents were woven through the discussion as illustrative of the overall argument.

The central idea emerging from both sets of data was that the provision of positive, sustaining experiences did assist those with previous, adverse experiences, help to reinforce and recalibrate their perceptions of academic ability. The proposition put forward in Chapter 1, that there was a relationship between Academic Sustenance and Academic Confidence was shown to be more than a speculative one, as anecdotal evidence from respondents illustrated how AS could be seen as a mitigating influence for improving students' Overall Academic Confidence.

In addition, patterns in interview data showed definite indications by some respondents in order to make the best of their opportunities whilst at University. High OAC-ranked respondents were unambiguous and determined; they wanted to maximise their time and were clear in outlining their strategies. Forming study groups, planning, organising and setting timetables was a common theme in this group.

The distinctive point appeared to be the degree to which students could, as one respondent observed, to: "Roll with the punches." Certainly Claxton early investigations into resiliency and Martin's research into academic buoyancy was insightful in shedding light on the psychology into how students cope with adverse circumstances.

What was also evident was the desire to develop and nurture the sensations of newly awakened skills and abilities. Lower OAC-ranked students acknowledged that there were both behavioural alterations to be made and attitudes to be adjusted, if they wished to continue to cultivate fledgling capabilities.

The following chapter presents the conclusions suggested by the results and findings of the research and also proposes practical application for them, as well as ways in which an expanded research scope could broaden them for greater function, not just for Higher Education, but other educational practises.

Chapter 7 Conclusions

7.1 Conceptualisation and framework of this study revisited

The origin of this study began with a question: Why do some students appear to cope better with academic challenges than others? As this question was considered, it was apparent from the literature that there was more complexity to an answer than just 'capability' or 'competence' or 'effectiveness' or indeed, any singular attribute. As a result, it was necessary to consider the complexities of 'why' some students are able to deal with academic challenges with equanimity and not 'how'. This and the other research questions framing this thesis are therefore positioned within the psychological literature of confidence and as earlier chapters have shown, contextualised within the self-concept literatures.

In addressing this issue it was necessary to consider some additional questions: were there differences between students with different educational backgrounds? Were there any relationships between gender and academic challenge? What role did previous educational experiences play in affecting the issues? Were these quantifiable? How might they be qualified in order to seek explanations?

This chapter suggests resolutions for each of the central research questions and offers recommendations as to how the findings from this thesis could be best utilised for use in both Higher Education and for improved student well being.

7.2 More than just Confidence?

As the study progressed, it became clear that any such psychological separations were not specifically between differently educated students per se, but instead, might be found in the actions and activities of individuals having similar characteristics of action or intentions. As the discussion, results and findings throughout this thesis have demonstrated, respondents' self-reported levels of Academic Confidence and participation in experiences able to build or remove confidence suggested the influence of an external element. This element was

conceptualised as Academic Sustenance. It was further theorised that positive educational experiences formed the basis of sustaining experiences. Through regular and recurring engagement with such experiences, an individual would build a level of perception of ability allowing them to deal with challenges or obstacles more readily. Conversely, reduced or restricted sustaining experiences would affect levels of Academic Confidence, resulting in atrophy or decline, leaving the individual with apprehensions and uncertainties about their abilities.

Such an element suggests an emotional component, resonating far into the future for many individuals; thus a deeper and more complete consideration of the relationship between Academic Confidence as both an expectation of performance and of self-effective behaviours as an indicator of actual performance, has been developed.

For this reason, this thesis is titled: “Food for Thought: an exploration of the relationship between Academic Confidence to Academic Sustenance in Australian undergraduate students”; envisioned as an investigation of the relationship between perceptions of ability, defined as Academic Confidence, in combination with past academic incidents which suggest sustaining experiences, defined as Academic Sustenance.

7.3 The concept of Academic Sustenance

In order to address the issues of experience and background it became clear that the qualitative material allowed more profound gains in understanding as to why students might under-predict their ability. Through inviting students to express their thoughts and concerns as well as their expectations and beliefs, it was clear that the study had opened a window into an unexpected vista, namely, a snapshot of consequences and outcomes if cumulative support in the form of positive, sustaining academic experiences were either available or withheld. Respondents recollected incidents where they benefitted from these occurrences and also where they did not. Such recollections, irrespective of their level of positivity, were powerful and were clearly indicative of a transformative event.

Given the frequency by which respondents were able to recall such occasions, the source of these experiences was named “Academic Sustenance”; the premise being that it suggested that the provision of a nutrient-rich combination of skills, knowledge and support enabled the development of essential attitudes and outlooks needed to manage the experience and expectations of academic endeavours. This state of psychological well being, as Martin suggests, is similarly indicative of Academic Courage, which he defines as: “perseverance in the face of academic difficulty and fear” (2011, p. 145). Courage and confidence would therefore appear to be similar in foundation, yet without the building blocks for the creation of a psychological base for these traits, a person would not be able to realise their potential. It could be argued that Academic Confidence and Academic Courage have some relationship; this notion however is outside the scope of this thesis but would benefit from further research in order to determine any connection or correlations.

Academic Sustenance therefore, suggests that, as with any form of nourishment, consistency and reliability are necessary, in an appropriate combination of educational nutrients to the individual, in order to promote academic growth and vitality. Through a dearth of Academic Sustenance, the absence manifests as lowered levels of vitality or performance ultimately affecting an individual’s level of Academic Confidence.

7.4 The Revised model of the constituents of Academic Sustenance

A preliminary model of Academic Sustenance was presented in Chapter 2, Figure 2.1, suggesting a potential relationship between Academic Sustenance and Academic Confidence. Four components were proposed to illustrate possible aspects of this relationship: Self-efficacy, Determination, Resilience and Stamina. The model was further refined as a result of the findings presented in Chapter 5, where the thematic analysis of the interview material revealed additional patterns between respondents with different levels of Academic Confidence. Those themes were identified as Encouragement, Drive, Grounding and Efficacy (EDGE). Each of these

developing traits could be present as a singular event or overlaid with others to form a coexistence of effects.

Often in educational research the focus is on the activities through which learner behaviours transform, such as study habits or teaching technicalities. This study found that the effects of situated experiences, in particular, long-term ones, held tremendous psychological power over perceived levels of confidence. Such experiences appeared to influence self-efficacy judgements, resonating with the individual far into the future.

7.5 Thesis research questions: explanations and resolutions

Three central questions were proposed in Chapter 1, as the focus in seeking to understand what it means to have Academic Confidence as a student. The questions were:

1. What particular elements or similarities do academically confident students have in common?
2. How does Academic Sustenance and past academic experiences affect students' Academic Confidence?
3. What particular aspects of this relationship are noticeable in regard to students' levels of Academic Confidence?

In order to address each question, and as a prelude to further discussion in this chapter, it is necessary to clarify the definition of Academic Sustenance. The following, refined definition is proposed based on the findings and discussion put forward throughout this thesis.

Academic Sustenance can be considered as a global accumulation of positive academic experiences, which allows students to draw on those reserves established through sustaining experiences when challenges or obstacles present themselves. Feeney and Lemay (2012) define such accruals of related experiences as 'emotional capital'; the notion that Academic Sustenance might be a type of academic emotional

capital had some merit; this deserves further study in a broader scope, in another research endeavour.

The re-defined model is illustrated by Figure 6.1 in Chapter 6, however as an illustrative clarification of the aspects of the relationship between Academic Confidence and Academic sustenance proposed by questions two and three, the following discussion exemplifies the long-term effects of Academic Sustenance, when the lack of sustaining, positive academic experiences continued to influence a person many years after the event.

7.5.1 How does Academic Sustenance and past academic experiences affect students Academic Confidence?

Question 2 proposed the existence of an effect between past academic experiences and Academic Confidence. As the findings in this thesis has established, the aspects of the themes of 'Encouragement' and 'Drive' signposted the opportunity for sustaining experiences when interacting with teachers in the role of mentors or through interaction with peers, either as supportive friends or classmates. Such actions were perceived by respondents as having substantial influence on their perceptions of confidence when undertaking academic tasks.

The most striking illustration of the damaging effect of the lack of positive, sustaining experiences was exemplified by the case of Marion C*(L). Noted throughout the interview were the deeply felt consequences of the educational deprivations, some appearing emotional as well as physical. Long absences from regular schooling, in combination with the sudden and inexplicable relocation urges of her parents, affected Marion C* profoundly. She had had many years to reflect on the itinerant travel proclivities of her family's early life and even then, was staggered at the lack of consideration given to allowing both herself and her siblings the opportunity for any stability in their early educational lives.

Academic confidence and the levels thereof, suggest value as a signpost to appropriate academic sustenance at strategic phases of an individual's psychological

growth, when key academic building blocks and strategies are essential. Marion C* (L) in a perceptive observation, drew a parallel between health and Academic Confidence:

“You function better. You feel better all over ... (in your) well being ... so if you’re functioning better you absorb information a lot easier... And then the physical fitness would go back into social, being (able to be) social ... I think it’s a factor of both.” Marion C (L)*

Without the correct nutrition, it is difficult to thrive, to be the person imagined. This is an area where universities could and should, help sustain and cultivate those who might be lacking in the essential vitamins and minerals of Academic Confidence. In this way, people are able to be whom and what they want, enriched, sustained and replete from their intake of the sustenance of academic life.

Once this notion of Academic Sustenance was recognised, only then did the implications of why differences in the responses and attitudes of the study participants begin to take shape. This was particularly evident in the following example of the extent of the effect of diminished Academic Sustenance.

During the process of research, as sometimes happens in such investigations, the study brought to light some intriguing aspects of the way in which past experiences continue to resonate and influence the present. The interview material highlighted what could be considered as ‘the missing career’, in which people reflected on how their lives might have differed if alternative choices had been made earlier in their lives.

The most striking instance of this aspect of privation of Academic Sustenance was Marion C* (L) whose OAC-ranking was the lowest level recorded in the study. As mentioned in in the previous section (see also the interview participant snapshots for Low OAC in Chapter 4, section 4.5.3), Marion C*’s childhood education was fractured and episodic, due to the dictates of her parents’ employment and travel impulses. It was palpable when listening to Marion C*’s recollection of those times that there was a deep and keenly felt sense of loss about two things: firstly, the lost opportunities in

her primary schooling for developing the crucial skills and abilities necessary for continuing education and secondly, the school friends left behind when the family relocated without warning. Such skills, identified as “Grounding” in the thematic analysis, assisted with student beliefs about their abilities when performing academic tasks and also, reaching a desired level of achievement as a result. Martin (2015) points out that actual abilities are part of the self-concept constructs built through task mastery and familiarity; it is clear that through Marion C*’s lost opportunities to acquire and develop her academic skills, a gap in her sense of self as a capable and competent student was also lost.

The theme of ‘Encouragement’ through peer support, was an equally keenly felt loss, as the forfeiture of the support of friends through the many abrupt relocations during her school years recalled powerful emotions:

“...there was never time to say a goodbye to anyone... there was never any money available for a stamp, so you could keep in touch...it was so hard to lose people that way...” Marion C(L)*

As discussed in Chapter 5, peer support, identified as ‘Encouragement’ in relation to Academic Sustenance, was the basis of many respondents’ recollections of positive, sustaining experiences. The frequency of loss of encouragement in the form of friends continued as a source of regret in this case, with the cost of such losses still high even decades after the events of her childhood. In Marion C*’s particular recollections, her academic confidence apprehensions stemmed from those breaches in her education and social proficiencies. Paunesku *et al.* (2015) argue that adversity can be brushed aside when an individual is focused on achievement, yet it is evident in this case that these ruptures have been the result of major shifts in her perception of confidence and ability. As such, the theme of ‘Efficacy’ is also part of this pattern of effect, in that adverse academic experiences have pervaded Marion C*’s self-concept to the extent that she questioned her abilities at every turn.

As a result, Marion C* lamented what might have been, had she been permitted to have a more settled education. As she commented (often tearfully) in her interview:

“...we (siblings) all struggle with having finding roots ... we never got a solid foundation and we all kind of struggle. That’s a real ingrained need for all of us...” Marion C(L)*

She contemplated the different life she might have had and the different career options which might have been available, had her education not been so curtailed and her fledgling interests allowed to nurture and flourish. It was clear that Marion C*’s situation was an telling example of lack of Academic Sustenance, which still affected her perceptions of her abilities many years later.

During her first semester, she had received a number of positive experiences about her work in the form of peer encouragement from academic staff and also from classmates. As her mastery of academic skills grew, her reserve of Academic Sustenance began to replenish and she began to offer support to other students. This also suggests the transformative nature of Academic Sustenance: through the aspects of ‘Encouragement’ and ‘Grounding’, Marion C* was able to provide positive, sustaining experiences to other students in need. It was both humbling and gratifying to hear of the efforts she had made in her life to clamber out of previous dark places created through deprivations of satisfying, educational experiences.

7.5.2 Academic Sustenance: deriving the benefits

Conversely, an equivalent case of academic extremes was that of Manuel P*(H). Reporting one of the highest OAC scores in the study, the interview was especially significant to determine if this was simply over-reporting of ability; an often described effect in male respondents, as discussed in Chapter 2. As the interview snapshots in Chapter 5 indicated, his background was one of enormous hardship, fleeing from the turmoil of a politically troubled and war-torn country at a very young age with his family, his early academic life was equally fractured and sporadic. Manuel

P*'s education was taken in refugee camps with, through western eyes, an almost intolerable lack of basic amenities, yet his OAC-ranking was seemingly at odds with his background.

What was evident throughout the interview, was the sincerity of his responses and the solid impression of his determination to maximise his opportunities and make a genuine difference in his world. It was moving to hear the quiet authenticity of Manuel P*'s experiences and his determination to move past his rocky start and realise his potential. Throughout the interview, he stated his thanks for the opportunity to participate in the research and to convey his own modest, academic hopes.

In contrast with the previous example, where adverse experiences had constructed beliefs of ability centred on insecurity and qualms, Manuel P*(H) had benefited from continual educationally sustaining experiences, which allowed him to look beyond his actual surroundings and focus on the possibilities available through education. In this case, the four 'EDGE' elements identified in the thematic analysis were clear contributors to his Academic Confidence and indeed, his capabilities in dealing with the many challenges of daily existence. 'Encouragement' was obtained from classmates, who supported each other with collaborative effort along with teachers as mentors, who provided a continual quantity of sustaining experiences in delivering education as a means of seeing different ways of being. The element of 'Drive' was exemplified through the physical effort of being present for classes with the scant resources available yet making the most of the opportunities to continue learning. 'Efficacy' and 'Grounding' were similarly noted as appropriate study skills were established and a belief that gains could be achieved in spite of the conditions, it was clear that this was fertile and productive ground for dissemination of Academic Sustenance.

If, as been proposed in this thesis, the absence of sustaining educational experiences creates an academically cautious, tentative and hesitant individual, as suggestive of Marion C*'s crisis of confidence; as the previous account has shown, it

was not so for Manuel P*. Although both experienced episodes of great physical and psychological trauma, which could suggest similar pessimistic outlooks on life, it was evident that some other influence was at work with regard to their academic predictions of ability and achievement. Reed *et al.* (2015) maintain that self-beliefs forged through adversity hold transformative abilities. This would appear to hold true in the case of Manuel P* whose early existence had seen much tragedy. His academic life in contrast, however had a surfeit of Academic Sustenance and as a result, he faced challenges and obstacles with equanimity and composure. It too, was both a sobering and heartening experience to hear his story and recognise the achievements he had made in his life.

The following section examines the first of the research questions and presents further discussion on the themes emerging from the interview material as to characteristics of confident students.

7.5.3 What particular elements or similarities do academically confident students have in common?

As presented in Chapter 6, elements in common held by students with High OAC rankings, were the capacity to set goals, make plans and schedule their time successfully. Stankov *et al.* (2014) point out that for many students' confidence in their academic abilities is related to their self-efficacy beliefs. These beliefs correspondingly influence the self-directive and self-regulating behaviours. As described in Chapter 2, Section 2.8 the importance of self-beliefs is underscored as the research into self-efficacy and self-concept enables deeper awareness into these archetypes. As this thesis argues, Academic Confidence deals with predictions of performance whilst reflecting on academic abilities. As the study demonstrated, students reporting Low OAC did not necessarily perform to their expectations; some outperformed their predictions.

In speaking with students and having them convey their expectations and ideas, it was clear that determination to succeed was a key factor; those students reporting High OAC had specific reasons for wanting to achieve their objectives and as

the interview material revealed, were able to articulate those reasons clearly. Conversely, Low and Mid OAC reporting students recognised equivalent reasons and the actions necessary to achieve them should be in place but seemed less able to make those crucial behavioural changes.

7.5.4 What particular aspects of this relationship are noticeable in regard to students' levels of Academic Confidence?

One aspect of differences in Academic Confidence between students was suggested through the action of physical relocation. The act of relocating from one country in order to pursue an education could be an indicator of determination and resolve. This aspect of the study could not be considered quantitatively as data were limited to those considering the performance of various types of academic tasks. This is not to imply the survey instrument is flawed, on the contrary, as this study was not seeking to replicate the work previously done by the instrument designers; the intention was to use the survey instrument to examine academic confidence in its general form, amongst commencing students from a variety of programs and backgrounds. As an incidental finding that that international females students appeared particularly cognisant of the deliberate efforts to acquire an academic qualification, in a particular country within a particular program, speaks a great deal as to the psychological determination of that group. This will be discussed further later in this chapter.

7.5.5 'Drive' and determination

What began to emerge from the study therefore was the identification of a certain determination on the part of specific participants. For example, respondents with High OAC ranking held the following traits in common: they had a clear vision of what they wanted to achieve through their degree, be it a new career opportunity, or a realisation of a particular professional aspiration; they recognised the importance of forward planning, that is, the need to organise their time in such a manner as to anticipate and allow for high demand workload intervals.

7.5.6 'Grounding' and practical study skills

High OAC ranked respondents also employed practical strategies, such as diarising key dates and events; all noted the importance of efficient time management. The themes of 'Grounding' and 'Drive' were firmly represented in this group and indeed, as explained in Chapter 6, respondents with High OAC ranking believed effective time management was paramount not just for study purposes but as a life skill in general.

7.5.7 Gender and Academic confidence levels

A further incidental finding was that international women indicated higher levels of Academic Confidence in relation to their workload management predictions. As discussed in the previous chapter and in Chapter 2, women are more often juggling employment and family duties along with their study commitments. What was explored further through the interview material was that throughout the recognition of the need to be well organised to accommodate the extra time and effort needed for studying, was that women were more likely to be adept at managing their time. The themes of 'Efficacy' and 'Encouragement' were strongly indicated as respondents reflected on the ways in which they modelled positive behavioural examples for their children (see in particular High OAC respondents, Valerie Y*, Elaine K* and Simon J*, all of whom spoke about their families and the importance of setting good examples of work ethics or following an ambition).

The idea that international women were particularly confident could be a result of choosing to study abroad, a definite and pre-determined timeframe apportioned for studying and the attainment of the degree was essential. Martin *et al.* (2015) point out that resilience, in the form of academic buoyancy, is more notable for students with a more flexible outlook on their preconceptions of ability. It is proposed that international women in their awareness of this time frame were therefore more flexible and resilient in their efforts than others in order to achieve their goals. As a result, it is suggested that this flexibility was amplified in their levels of OAC.

7.6 Perceptions of performance and actual abilities: the 'EDGE' of Academic Sustenance

Chapter 2, section 2.6 presented the basis for how our experiences shape and define our belief systems, particularly in relation to ability. Pajares argues that in a sense, others define us so we use their definition to define ourselves (2002, p. 120). This notion that the self is a reflection of other peoples' expectations, aspirations and ideals is not new; the practice of psychoanalysis deals with the theory that what plagues the body stems from the mind. In liberating repressed beliefs or misconstructions about their abilities, the individual will be empowered to choose a better way of living their life.

Indeed, statements made by Marion C* (L) for example, about childhood experiences in relation to education would appear support this idea of, as Pajares (2002), drawing on Cooley's research from 1902, phrases it, "a looking glass self". It was evident that a sense of missed opportunities and regret at having lost a good deal of her formative educational experiences coloured her confidence perceptions; this impacted her self-concept and self-belief to an extent that she considered her academic abilities quite differently from those of her classmates. It has been argued too that the lack of positive, sustaining experiences during this ruptured and erratic time also contributed to the definite sense of both loss and apprehension voiced in regard to her perception of her academic abilities.

The reality however was not accurately reflected in her actual performance. A full academic year after data collection was carried out, her GPA reflected that she was managing her studies satisfactorily, achieving passing course grades. The predictions made of her perceived ability in this instance were not indicative of her actual ability. Clearly, Marion C* was more resilient than her self-predictions imagined. It is conjectured that as Marion C* had been able to join a study group towards the end of her first semester, the support and camaraderie from that group was providing necessary 'Encouragement', 'Grounding' and 'Efficacy'; all of which so badly absent from her previous academic experiences.

It can be surmised that such an edge offered to Marion C* by her study group did indeed provide some measure of control and authority over her perceptions of ability and allowed her to shift her outlook to a more positive view regarding her future.

As discussed in Chapter 2's literature review, Martin and Marsh (2008, p. 53) refer to this aspect of ability as "academic buoyancy", describing it as a student's ability to successfully deal with academic setbacks and impediments, distinguishing it from a similar concept posited by Claxton of resilience. Claxton defines resilience as a combination of emotional stamina and mental agility (2002, p. 14). Indeed, both terms are accurate depictions of the depth of psychological reserves necessary to recover from setbacks and maintain steady progress towards one's objectives. However, as this thesis has steadily advocated, it is the influence of Academic Sustenance, which affects Academic Confidence, thereby establishing a footing for resilience.

7.6.1 Academic Sustenance: the key factors

The discussion thus far has examined the possibility of an element influencing levels of Academic Confidence. This element was conceptualised as Academic Sustenance and is defined, according to the argument of this thesis, as a global accumulation of positive academic experiences, which assist in the development of sustaining experiences thus building Academic Confidence.

Emerging from the thematic analysis, the primary source of this influence appears in the form of 'Encouragement' often as the result of mentoring or peer support, which in turn, influences the other elements of 'Drive, supporting determination, 'Grounding', in the form of practical academic skills and 'Efficacy' which boosts belief in ability. Together, these elements combine to form Academic Sustenance, which as the discussion has shown, can influence Academic Confidence in a positive or adverse way, conditional on the type of academic experience.

This thesis had argued that through appropriate support and reinforcement, student OAC levels could be boosted, giving a more positive outlook to their academic

abilities. The benefits of such a shift in outlooks are myriad. With these considerations in mind, the following sections discuss the opportunities for further research and for teaching and pedagogical practice.

7.7 Implications for Practice: use and implementation suggestions for Academic Sustenance

In contemporary society, the need to develop one's prospects for career fulfilment, social success and financial security increase, more people than ever are looking towards universities and educational qualifications in order to achieve these aspirations. One of the key benefits of education is therefore the provision of opportunity for people to realise their potential. The sense that progress is made through overcoming challenge is a critical one particularly given the heightened competition universities face in the current economic environment. Prospective students are scrutinising educational packages and programs closely before committing to a three or four year degree. Like any investment, value for money, prestige and recognition are factors in the eventual choice.

There is a level of responsibility on the part of universities and teaching faculty to ensure that students make the most of their time whilst engaged in tertiary studies. The idea that universities nurture and develop students so their talents and abilities are able to flourish is a long-standing one that is merited both philosophically and socially.

So too are the notions of stimulating curriculums and thought provoking assessments adding zest to a student's overall experiences. The scrutiny given to university programs, coupled with the desire for value for money mean it is even more imperative for universities to offer meaningful experiences in the course of a student's tenure during their degree program. Universities therefore, who take an active role in encouraging students to develop their confidence, look past setbacks and emerge well-equipped with their tool box of self-belief and self-assurance skills will entice and foster more people who value those qualities.

This thesis has argued that in the context described, differences in levels of Academic Confidence could be attributed to the influence of Academic Sustenance, in the form of positive, sustaining educational experiences. Providing suitable support mechanisms for students through more robust and proactive approaches by educational facilities might assist those commencing students to augment their existing proficiencies and allow them to further amplify their own self-concepts as a person successfully equipped to navigate whatever challenges lie ahead in life.

7.7.1 Suggestions for provision of ‘Encouragement’ for commencing students

The need to supply a good infrastructure and create an atmosphere of positivity is crucial. This could be developed initially through opportunities to interact with faculty, through on-going events throughout the taught phases of programs, where a faculty advisor, either an academic or professional could be allocated to groups of students in a mentor based role. As this study has shown, the role of influential mentors was a stimulus on student outlook, epitomised in the case of Lisa C*, whose view of herself shifted from an under-performing, under-motivated student to an energised and focal contributor.

The provision of ‘Encouragement’, whose theme of support was clearly identified in the interview material as essential in facilitating such a perception shift, could be provided through the establishment of formally assigned study groups for first years. Federici and Skaalvik (2014, pg. 21) and Zuffianò *et al.* (2013) suggest that emotional and instrumental support can deliver strong motivation correlations. By cultivating ‘Encouragement’ and thus fostering development of Academic Sustenance through deliberately engineered study groups of diverse student backgrounds, stronger support structures can be provisioned. The experiences of Simon J*, Kevin R* and Lisa C*, who found strength in unlikely groups (please refer to section 5.14 in Chapter 5) illustrate the potential for this suggestion.

In order to build the element of ‘Grounding’, more targeted study skill workshops could be offered to commencing students, to ensure their knowledge and

understanding of current requirements of academic work are understood. Respondents commented on such skill development opportunities as a by-product of interactions within their study groups, who offered ad hoc advice on features of assessment formatting or research technique.

However, universities need to consider how such support is presented, as it could be that some students might chafe at mandated conditions. The presentation of support, in the form of study skill workshops, or supported study groups, needs careful deliberation, as not all skills are useful or needed for all levels of Academic Confidence. It is a truism that stand-alone skill development options do not always attract everyone who needs them, whether through shyness or apathy on the part of the potential recipient. A decision as to how such scaffolding might be built into academic programs for example, would need consideration at both institutional and policy level, which may have critical shifts in funding and doctrine directions. These issues require further research and consideration amongst key university stakeholders.

The thematic analysis indicated that 'Encouragement' was the strongest theme, more research is needed to determine specifics of how students fare if they have no encouragement. Indeed this theme could be expanded further through a broader sample and by looking at individual students to see what might be building other aspects of encouragement.

The additional themes would also benefit from expansion; 'Grounding' for example could be addressed by considering what and which study skills are already in place for individual students. The theme of 'Drive', being linked to motivation, could be explored through further research into student expectations and their anticipations for future use of their degree. The final theme of 'Efficacy' could be broadened through research into actual performance, where a longitudinal project could follow a cohort of commencing students through their entire degree tenure, to investigate their self-beliefs as to actual performance and ability, given their access to available study support structures.

7.7.2 Further considerations for Academic Sustenance as a signpost to improved Academic Confidence

A well-rounded education has always been the determination of a society who wishes to expand its horizons metaphysically as well as in reality; those places of learning that foster, embolden and sustain their students' abilities will demonstrate both their consideration of the individual and their determination of future contributions of those citizens within their community, wherever that might be.

One method to determine need is for a benchmark of OAC gathered from commencing students during their Orientation activities, from where decisions as to appropriate support could be made. This would also allow more information to be collected as to issues or problems concerning commencing students and allow more research into things that matter to this group.

In acknowledging that students might lack a sense of belief in their abilities based on previous academic experiences, educators could identify those students needing support and offer appropriate strategies to encourage, nurture and foster stronger and more resilient graduates. The concept of Academic Sustenance therefore, is an important aspect of refining and accentuating existing levels of Academic Confidence. So too, is the opportunity to inquire further from those students reporting High OAC as the skills, strategies and attitudes they possess are invaluable resource for teachers, researchers and educational developers to gain greater insight into how students build and manage their perceptions of ability.

As highlighted in the literature reviewed in Chapter 2, the ability to successfully deal with adversity, to manage setbacks and to cultivate a positive outlook to work around problems are real and viable skills for navigation of contemporary society. Those individuals lacking those skills can and do suffer both psychologically and physically as a result. The anecdotal findings related by the respondents indicated the levels of distress and anguish undergone as a result of withdrawal of support or lack of understanding regarding their specific needs.

By assessing Academic Confidence, identifying those students with lower levels and by creating support mechanisms and structures to support and encourage students to cultivate strong values, more robust self-images and the competence and confidence to persevere in the face of adversity can be constructed. Such individuals can then make their way into the community with the belief that they are able to contribute fully to the future of both civic and personal life in a meaningful and fulfilled way.

7.8 Academic Sustenance and its implications for the individual

Emerging from this study were the unique data collection opportunities gained from use of the ABC survey instrument of Academic Confidence, as a measurable and observable way of determining the likelihood of a student's success in their studies. In establishing a measure of a student's own perceptions of anticipated study behaviours and likely results, it was possible to identify students less academically confident than their classmates. As such, the study highlighted the finding that high levels of Overall Academic Confidence were likely to be exhibited by students who also demonstrated behaviours such as goal setting, preeminent time and workload management skills, study group initiators or major contributors within a group, as well as articulating a strong sense of responsibility for their actions. Individuals in this group also reported a higher level of initiative in their course work, consciously reading outside reading lists in order to gain a wider perspective on topics, thereby giving a wider viewpoint to their assessment work.

The themes identified in the interview material also established that this group made deliberate choices regarding their accountability and responsibility in consideration of achieving their stated goals. Students reporting High OAC were clear in their expected outcomes, whether it was for professional development in their current career or as a career change. These opportunities were seen as a direct result of the soon to be acquired educational qualifications. Of equal significance was the opportunity to further probe the notion that Low and Mid OAC reporting students were likely to be aware of these behaviours but could not summon or access the

necessary determination or strategies to modify their behaviour in order to develop or adopt High OAC characteristics.

7.9 Opportunities for future research

As previously outlined in this chapter, the subsequent increase in student populations implies an even broader cross section of people with huge variations in skills, knowledge and abilities. As educators, it is imperative that a means of establishing a benchmark of ability and performance is in place in order to determine that the right assistance is offered to those who require such encouragement.

As such, the study into differences in academic confidence has illustrated why such assistance is necessary, underscoring as it has the continuing need to dig deeper into the psychological contexts in which students operate whilst studying. For example, some of the gender based findings from the survey data that international women were far more adept at workload management was provocative, deserving a more extensive investigation to determine if this could be generalised across a more far-reaching study population. As the sample contained limited numbers of international students, further research could considerably broaden this inquiry in order to probe additional questions. Could it be applicable to particular countries, such as Asia or was it relative to specific areas of the globe? Why were international males not reporting similar proficiencies?

In the case of home students, what were the differences between females, that their workload management abilities were much lower than their international classmates? What could be influencing their academic confidence and predictions of ability? It is clear that a broader research project covering a greater area with more participants would yield richer data sources, which could furnish answers to these questions.

7.10 Final thoughts

The initial proposition of a relationship between Academic Confidence and the construct of Academic Sustenance has been revealed as one of complexity. It has also been shown as another under-reported aspect psychology of the self. This thesis also suggested it is one with significant consequences for enhancing people's lives once outside formal academic endeavours. Such relationships continue to absorb and captivate educators, for even as far back as 380 BCE, the Greek philosopher Plato pondered the links between self- knowledge and education, musing that:

“Human behaviour flows from three main sources: desire, emotion and knowledge” and that “the direction in which education starts a person will determine their future in life”. (Kraut, 2015)

This study has shown that those observations made centuries past, still resonate in the study of the human condition. The emergence of the concept of Academic Sustenance and its potential for pivotal impact on the growth, resilience and spirit of the learner deserves further reflection and study.

In seeking to understand more of how a person perceives their abilities in the context of the focus with which they bring to studying, more can be understood about how that person approaches their life. Such knowledge can only assist educators in developing strategies which work on the whole person, learning what is worthwhile and recognising that together, ability and the provision of Academic Sustenance can be nurtured, enhanced and cultivated for long-term benefits.

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Appendices

Appendix A: Ethics approval

From: SMITH J.C. <sheena.smith@durham.ac.uk>
Subject: Ethical approval: Kathryn Hill
Date: 12 April 2012 11:41:21 pm ACST
To: HILL K.L. <kathryn.hill@durham.ac.uk>
Cc: ED-PGRSTUDENTS E. <ed.pgrstudents@durham.ac.uk>, KIND V.
<vanessa.kind@durham.ac.uk>

Dear Kathryn

I am pleased to inform you that your application for ethical approval has been granted by the School of Education Ethics Committee in respect of 'In what ways does academic confidence relate to students' academic success...?'

May we take this opportunity to wish you good luck with your research.

Best wishes
Sheena Smith
Research Office
School of Education
Durham University

Tel: (0191) 334 8403

www.dur.ac.uk/education

Appendix B: Information Sheets

B (1) Pilot Study: Research Project information sheet for participants

B (2) Pilot Study Consent form

B (3) Pilot Study Information sheet

B (1) Research Project Information Sheet

Waratah State* University
July 2012

“An investigation into academic confidence between students in an Australian university context.”

The following information is provided so that you can decide whether you would like to participate in the above named research project. Your participation is voluntary and you may decide not to continue at any stage of the project.

This research is being conducted to understand those factors that may influence academic confidence and success amongst students commencing their university studies in order that these factors might be better understood. The research is in fulfilment of the requirements for a doctorate in education with Durham University, UK.

Data will be collected in two ways. You will be asked to complete a survey which asks you to rate on a scale of 1 – 5 your level of confidence in your ability to perform certain types of academic tasks such as attending lectures and tutorials, managing your workload in a timely manner, participating in group discussions and similar events. You may also be asked to participate in an interview, to discuss and clarify your responses.

Your inclusion in this study has been through random selection as you are a commencing student at this University and participation is voluntary in both completion of the survey and in any subsequent interview. If you consent, interviews will be recorded and transcribed for analysis. If you like, your identity will only be known to the researcher and will not be disseminated with the findings. You may refuse to answer a question or to withdraw from the research project at any stage. If you do withdraw your consent all your data will be removed from the project and destroyed. All data will be stored securely and no student will be identifiable by name from the data, nor in any publication arising from the research

You are welcome to ask any questions about the research project either before or during your participation. You are welcome to read the results of the research once completed and written up.

Risks for this project are considered negligible as only written data from the survey along with transcriptions from interviews are used.

If you are willing to take part in this research project, please sign the consent form on the following page with full knowledge of the nature and purpose of the data collection methods. A copy of the consent form will be given to you to keep. You may be invited to participate in an interview. Please tick the box to indicate if you agree to

participate. All details such as name and email will be kept confidential.

If you have any questions about this research, you may contact the primary researcher: EdD candidate Kathryn Hill on 0*****; email Kathryn.hill@waratahstate.uni.au This research project has been approved by both Durham University's ethics advisory committee and by the Waratah State* University's Human Research Ethics committee.

Thank you for your consideration in this research.
K L Hill
School of Management, Waratah State* University

B (2) Title of Research Project:

An investigation into academic confidence between undergraduate students in an Australian university context

(The participant should complete the whole of this sheet himself/herself)

Have you read the Participant Information Sheet? YES/ NO

Have you had an opportunity to ask questions and to discuss the study?
YES / NO

Have you received satisfactory answers to all of your questions? YES / NO

Have you received enough information about the study? YES / NO

Who have you spoken to? Dr/Mr/Mrs/Ms/Prof.

.....

Do you consent to participate in the study?
YES/NO

Do you understand that you are free to withdraw from the study;
* at any time and* without having to give a reason for withdrawing and
* without affecting your position in the University? YES / NO

Do you understand and agree to recordings of interviews and that those recordings may be used for research purposes after the end of the project?
YES / NO

Signed
.....

(NAME IN BLOCK LETTERS).....

Date.....

B (3) Student survey: Academic Confidence

Waratah State* University

Instructions

The following survey is part of a doctoral study based at Durham University, UK investigating factors impacting on students' academic confidence. Your participation will identify areas where students may need help to develop their skills. The survey comprises twenty-four questions, dealing with different kinds of academic tasks, such as preparing coursework and managing time.

Answer each statement by selecting the check box corresponding to the level of confidence you feel in being able to successfully achieve that task. The scale is rated from 1 – 5.

“Not at all confident” is 1, while “Very confident” is 5.

Please answer each statement honestly. There is no time limit on how long you need to consider your answer. Please respond to every question.

Terminology: Some statements might use unfamiliar terms. For example, Q8 asks how you feel about engaging in ‘profitable academic debate with your peers’. This means feeling able to talk about the topics you are studying with your classmates to help develop understanding of the subject.

Q12 asks about how confident you feel in ‘following the themes and debates in lectures.’ This means seeing a connection between authors or ideas being discussed.

Please ask questions if there are any terms you are unsure about. Please ensure your contact details are correct and sign the consent form and indicate whether you agree to participate in follow-up interviews, which would be used to clarify any of your responses and add insight into other areas. These will be conducted from April to May 2013.

Thank you for your participation. Your contribution will greatly assist both Durham University and Waratah State* University in creating new ways of helping students achieve their academic goals and feel more confident about their achievements.

K L Hill

Kathryn Hill

Waratah State* University

Appendix C: Consent forms

C (1) Main Study: Consent form

C (2) Main Study: Information sheet and survey consent form

C (1) Main Study Consent Form

Please tick the box next to or write your response where indicated

Name:	Date:
Age Range: 18-21 <input type="checkbox"/> 22-25 <input type="checkbox"/> 26-30 <input type="checkbox"/> 31-35 <input type="checkbox"/> 36-40 <input type="checkbox"/> 41-50 <input type="checkbox"/> 51 – 60 <input type="checkbox"/> 60+ <input type="checkbox"/>	
Email:	Gender (check one box) Male <input type="checkbox"/> Female <input type="checkbox"/>
Ethnic background:	Education: Metro area <input type="checkbox"/> Rural area <input type="checkbox"/> International <input type="checkbox"/>
Country of origin:	
Your high school final results score (if known): Please write the number in the next box →	
Which Early Preparation Workshop (EPW) are you attending today?	Degree program:
Are you the first in your family to attend university?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Are there any physical or other needs, which may affect your studies?	Yes <input type="checkbox"/> No <input type="checkbox"/>
I would like to participate in follow up interviews (please check either Yes or No of the corresponding boxes)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Participant's Signature (sign in the next box) →	

C (2) Main Study: Information Sheet

Waratah State* University

March 2013

Participant information sheet and Interview Consent form

Recently you agreed to participate in a research project looking at the relationship between academic confidence, self-efficacy and success and the concepts of resiliency on adult learners in a contemporary western learning environment. On that consent form, you indicated you would be willing to participate in a follow up interview.

This interview will last approximately 60 minutes. By participating in the interview, you have an opportunity to present your views on being a new student and how you feel about and are dealing with the challenges presented by your studies. You will be asked about your responses to the twenty-four questions on the survey and your understanding of them.

Your participation in the interview is voluntary. If you consent, the interview will be audio-recorded and transcribed for analysis. You can refuse to answer a question or withdraw your consent at any stage. If you choose to withdraw, all your data will be removed from the study and destroyed. The audio files will be encrypted and stored securely on a password locked computer. All data will be stored for at least five years after publication. Only the researcher will have access to the data. All information will remain confidential as far as legal circumstances exist. No names or identifying details of individuals will be provided in any reports or publications that may arise from this research. Short, unattributed quotes may be used as examples; however, every attempt will be made to mask any identifying information.

If you are willing to continue to take part in this research project and participate in this interview, please sign the consent form on the other side of this page with full knowledge of the nature and purpose of the data collection methods. A copy of the consent form will be given to you to keep. All details such as name and email will be kept confidential.

If you have any questions about this research, you may contact the primary researcher: EdD candidate Kathryn Hill on 0*****; email: kathryn.hill@waratahstate.uni.au This research project has been approved by both Durham University's ethics advisory committee and by the Waratah State* University's Human Research Ethics committee.

Appendix D: Interview Consent Form

Name:	Date:
Email:	
Country of origin: (write the country name below)	Gender (check one box) Male <input type="checkbox"/> Female <input type="checkbox"/>
Program	School
<p>I agree to participate in the interview and I understand and agree that it will be recorded for data collection, transcript and analysis. I also understand the recording will be kept and used for additional research purposes by the researcher after completion of the project. I also understand that I can refuse to answer any question or withdraw my consent at any stage.</p>	
Signature of participant (sign in the next box) →	

Appendix E: Interview Schedule

1. You answered (relevant question) with this response. Can you tell me more about why you answered that way?

2. You circled two numbers and it's uncertain which is the actual response. Can you tell me more about why you responded that way?

3. You did not answer all of the questions

Could you tell me why you did not answer all of the questions?

4. You indicated on the consent form that you come from (country of origin). Could you tell me about the education you had there?

5. Can you describe in what ways were your education experiences different to your experiences now?

6. What effects did your upbringing have on your approach to your studies?

Could you give me an example of a specific instance?

7. How do you perceive your progress compared to your classmates?

8. Is there anything in particular which you feel is different about the way you think about education, as compared to your peers?

9. Could you tell me more about how you feel about your progress with your studies?

10. What do you think are the characteristics of a confident student?

11. Do you think you are typical of a confident student?

12. How does being confident help students? If you are a high confidence student what would it be like if you were not confident? If you were a low confidence student what would it be like to be a high confidence student?

13. What was school like for you? What was your classroom like?
14. How long was a school day? How was it structured? What sort of breaks/ study times did you have?
15. Were there lots of exams?
16. Did you have lots of homework?
17. How was assessment managed at your school? Exams? Essays?
18. Is what you are doing now different?
19. Was discussion in class allowed?

Appendix F: Survey Instrument

Sander and Sander's ABC survey

1. Study Effectively On Your Own In Independent And Or Private Study	Very Confident	Not At All Confident
	5 4	3 2 1
2. Produce Your Best Work Under Examination Conditions	Very Confident 5 4	Not At All Confident 3 2 1
3. Respond To Questions Asked By A Lecturer In Front Of A Full Lecture Theatre	Very Confident 5 4	Not At All Confident 3 2 1
4. Manage Your Work Load To Meet Course Work Deadline	Very Confident 5 4	Not At All Confident 3 2 1
5. Give A Presentation To A Small Group Of Your Classmates	Very Confident 5 4	Not At All Confident 3 2 1
6. Attend Most Lecture And Tutorial Sessions	Very Confident 5 4	Not At All Confident 3 2 1
7. Attain Good Grades In Your Work	Very Confident 5 4	Not At All Confident 3 2 1
8. Engage In Profitable Academic Debate With Your Classmates	Very Confident 5 4	Not At All Confident 3 2 1
9. Ask Lecturers Questions About The Material They Are Teaching, In A One-To-One Setting	Very Confident 5 4	Not At All Confident 3 2 1
10. Ask Lecturers Questions About The Material They Are Teaching, During A Lecture	Very Confident 5 4	Not At All Confident 3 2 1
11. Understand The Material Outlined And Discussed With You By Lecturers	Very Confident 5 4	Not At All Confident 3 2 1
12. Follow The Themes And Debates In Lectures	Very Confident 5 4	Not At All Confident 3 2 1
13. Prepare Thoroughly For Tutorials	Very Confident 5 4	Not At All Confident 3 2 1
14. Read The Recommended Background Material	Very Confident 5 4	Not At All Confident 3 2 1
15. Produce Coursework At The Required Standard	Very Confident 5 4	Not At All Confident 3 2 1
16. Write In An Appropriate Academic Style	Very Confident 5 4	Not At All Confident 3 2 1
17. Ask For Help If You Don't Understand	Very Confident 5 4	Not At All Confident 3 2 1
18. Be On Time For Lectures	Very Confident 5 4	Not At All Confident 3 2 1
19. Make The Most Of The Opportunity Of Studying For A Degree At University	Very Confident 5 4	Not At All Confident 3 2 1
20. Pass Assessments At The First Attempt	Very Confident 5 4	Not At All Confident 3 2 1
21. Plan Appropriate Revision Schedules	Very Confident 5 4	Not At All Confident 3 2 1
22. Remain Adequately Motivated Throughout	Very Confident 5 4	Not At All Confident 3 2 1
23. Produce Your Best Work In Coursework Assignments	Very Confident 5 4	Not At All Confident 3 2 1
24. Attend Tutorials	Very Confident 5 4	Not At All Confident 3 2 1

Appendix G: Comparison with Sander and Sander's 2009 data

This study's data showed some differences in results from the factor analysis from those of Sander and Sander's in 2009. That study determined a better model fit with 17 items, which are shown in Table 9.1 below.

Sander and Sander's data were drawn from first year undergraduates enrolled in medical and psychology courses. (2009, p. 20) It is speculated that the high scores required for admission into such programs may have resulted in increased initial academic confidence by respondents. Having already met their performance expectations by gaining admission into their desired program, it is similarly speculated that academic behavioural confidence has, as Sander and Sander's point out, a relationship between it and future performance aspirations (2009, p. 19) as academic behavioural confidence bridges the gap between an individual's expectancy beliefs and capability beliefs.

Table G.1 Sander and Sander's 2009 17-item factor analysis

Grades	Verbalising	Studying	Attendance
(2) Produce your best work under examination conditions	(3) Respond to questions asked by a lecturer in front of a full lecture theatre	(1) Study effectively on your own in independent/private study	(6) Attend most taught sessions
(7) Attain good grades in your work	(5) Give a presentation to a small group of fellow students	(4) Manage your workload to meet course deadlines	(18) Be on time for lectures
(15) Produce course work at the desired standard	(8) Engage in profitable academic debate with your peers	(21) Plan appropriate revision schedules	(24) Attend tutorials
(16) Write in an appropriate academic style	(10) Ask lectures questions about the material they are teaching during a lecture	(22) Remain adequately motivated throughout	
(20) Pass assessments at the first attempt			
(23) Produce your best work in course assignments			

Appendix G Figure 1 shows the confirmatory factor analysis carried out by Sander and Sanders in 2009 demonstrating improved model fit using only 17 items. However, it was not the intention of this study to replicate the work of Sander and Sanders. Rather, the intention was to determine if there were differences between the levels of Academic Confidence in commencing undergraduate students.

Appendix H: Fit Indices

It was decided to investigate if the four-factor resolution would constitute a psychometric model as articulated through confirmatory modelling principles. Hence, a check on the psychometric properties of the four-factor model confirmatory factor analysis was run using AMOS software. The fit indices for the most part were not strong by the criteria of modern psychometric theory using confirmatory methods, as shown in the following table.

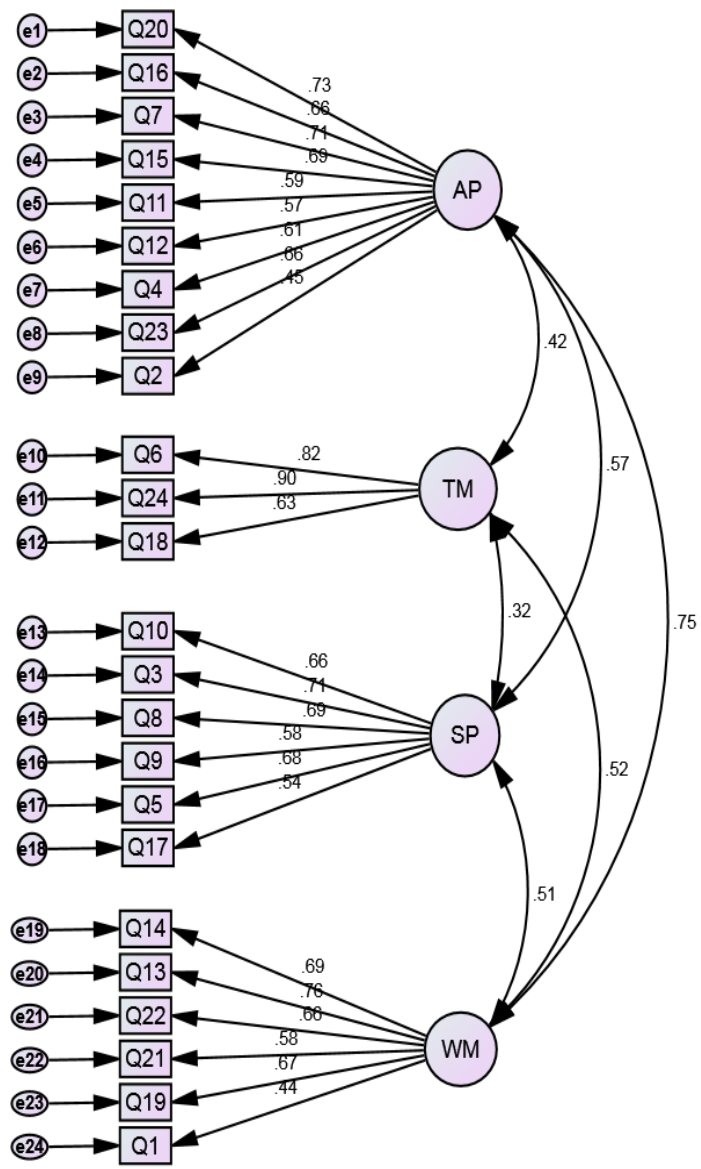
Table H.1 Summary of Fit Indices

Fit Indices	Acceptable Level	Actual Value
GFI	>0.95	.788
RMSEA	<0.05	.093
CMIN/DF	5	787.55
PCFI	>0.8	787.00
PCLOSE	>0.05	0.00
Chi Square	$p > .05$	$p < .001$

Appendix I: Confirmatory Factor Analysis

The AMOS program provided suggestions for modifications for the fit indices but it was decided not to employ these, as it required removing a number of the items rather than drawing on the full 24-item instrument. It is noted that Sander and Sanders (2003), the designers of the original ABC scale, were able to obtain satisfactory fit indices by removal of selected items in the scale, according to the AMOS modelling feedback information.

As this investigation was not attempting to replicate either the original 2003 or the revised 2009 model (proposing an abridged 17-item scale) but instead, examined the differences in academic confidence between commencing, all discipline students, it was decided the weakness of fit was not notably relevant in relation to the current study's objectives. The results of the confirmatory factor analysis for the survey instrument data can be seen in Figure I.1.



Confirmatory Factor analysis for 4 factors

Figure I.1 Confirmatory factor analysis model of the four factors of Overall Academic Confidence

Appendix J: Factor analysis for variables ‘First Generation university student’ and ‘Special Educational Needs’

As discussed in Chapter 2, students who were the first in their family to attend university may present with differing levels of insecurity when perceiving their ability to deal with the requirements of managing their academic undertakings. Hence, it was expected that those students might rate themselves as less confident academically than other students. That notion could be tested in the present data through the variable “FGU”. It was evident that 106 students in the sample reported that they were the first in their family to attend university.

In the present data, no significant effects were associated with this variable. A series of one-way ANOVA’s were conducted on the four sub-scales of Academic Performance, Social Performance, Time Management and Workload Management, plus their overall tally. No effects were significant.

Table J.1 shows a breakdown in terms of the individual 24 items.

Table J.1 Item means as a function of “First Generation University Student: FGU”.

Item	Yes (n=106)	No (n=149)	F	p
1. Study effectively alone	3.46	3.53	.24	.62
2. Best work in exams	2.82	2.93	.69	.41
3. Respond to questions in lectures	2.67	2.83	1.1	.31
4. Manage deadlines	3.35	3.43	.39	.53
5. Give a presentation	3.16	3.39	2.5	.11
6. Attend classes	4.02	4.06	.0	.96
7. Get good grades	3.45	3.48	.0	.98
8. Academic discussion	3.19	3.24	.05	.82
9. Ask lecturer questions	3.89	3.83	.46	.49
10. Ask questions in class	2.93	2.83	.99	.32
11. Understand material	3.39	3.46	.41	.52
12. Follow lecture themes	3.45	3.41	.61	.46
13. Prepare for tutorials	3.42	3.41	.05	.82
14. Complete reading requirements	3.66	3.61	.21	.65
15. Meet course work standards	3.5	3.56	.36	.55
16. Appropriate writing style	3.3	3.26	.1	.75
17. Ask for help	3.98	3.91	.34	.56
18. Timeliness for classes	4.14	4.22	.52	.47
19. Study opportunities	4.08	4.16	.57	.54
20. Pass assessments first time	3.64	3.83	2.7	.1
21. Plan revision schedules	3.42	3.5	.53	.47
22. Stay motivated	3.53	3.4	1.35	.25
23. Good coursework submissions	3.7	3.74	.56	.69
24. Attend tutorials	4.33	4.34	.0	.96

The aspect of Special Educational Needs (SEN) was also considered as a possible variable relating to levels of academic confidence. In the present data, this could be tested with the variable “SEN”. People reporting special needs ($n = 35$) were compared with those reporting none ($n = 215$).

A series of one-way ANOVA’s was conducted on the four subscales and the overall tally. It can be noted that significant effects were not obtained. Special needs did not appear to affect Overall Academic Confidence (OAC). However, it can be noted that the effect on Academic Performance was approaching significance at a level of .06. This was further investigated by examining effects item by item. This analysis is shown in Table J.2.

Table J.2 Item means as a function of Special Educational Needs: SEN

Item	Yes (<i>n</i> = 35)	No (<i>n</i> = 220)	<i>F</i>	<i>p</i>
1. Study effectively alone	3.77	3.62	1.0	.32
2. Best work in exams	2.58	2.95	1.1	.28
3. Respond to questions in lectures	2.87	2.77	1.8	.18
4. Manage deadlines	3.22	3.44	.16	.69
5. Give a presentation	3.12	3.34	.0	.97
6. Attend classes	3.78	4.09	.18	.67
7. Get good grades	3.22	3.51	.88	.35
8. Academic discussion	3.0	3.27	.08	.78
9. Ask lecturer questions	3.6	3.91	.24	.62
10. Ask questions in class	2.87	2.89	1.1	.29
11. Understand material	3.15	3.49	2.2	.14
12. Follow lecture themes	3.22	3.47	.5	.47
13. Prepare for tutorials	3.2	3.46	.8	.37
14. Complete reading requirements	3.74	3.61	.7	.4
15. Meet course work standards	3.49	3.54	.13	.72
16. Appropriate writing style	2.94	3.33	5.37	.02*
17. Ask for help	4.06	3.92	.64	.43
18. Timeliness for classes	4.09	4.2	.56	.45
19. Study opportunities	4.11	4.13	.02	.9
20. Pass assessments first time	3.43	3.8	5.2	.02*
21. Plan revision schedules	3.43	3.47	.08	.78
22. Stay motivated	3.31	3.47	.95	.33
23. Good coursework submissions	3.51	3.75	2.8	.09
24. Attend tutorials	4.2	4.35	1.1	.3

Note: $p < .05$

It can be noted that significance was obtained in two items, namely items 16 and 20, students with special needs indicated lower levels of academic confidence. As item 16 asked students if they were confident they could write in an appropriate academic style, students reporting SEN reported lower levels of OAC. Responses to Item 20 indicated a secondary area of concern for students reporting SEN, as they also indicated lower OAC. These results were discussed further in Chapter 6. The effect is illustrated in Figure J.1.

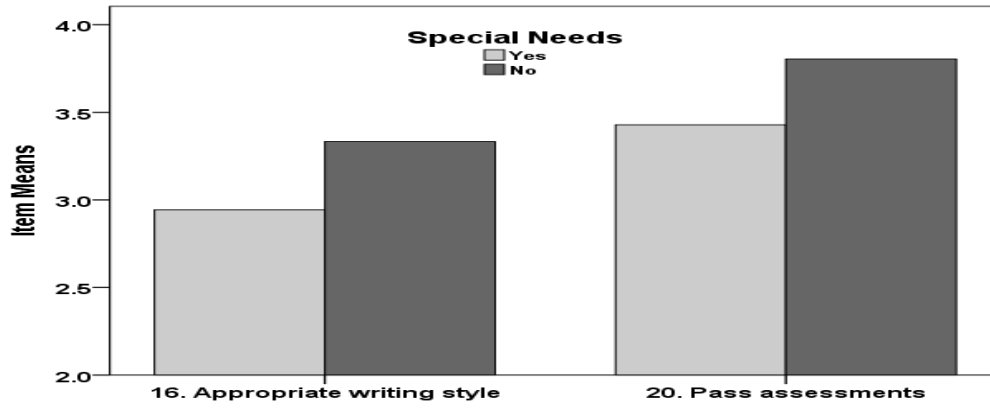


Figure J.1 Item needs for respondents with special educational needs