THE ACADEMIC AND SOCIAL INTEGRATION OF FIRST-YEAR STUDENTS INTO HIGHER EDUCATION: A SYSTEMATIC REVIEW

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Declaration

I, Shereene Natacha Knipp (s189643240), hereby declare that this dissertation for the degree of Masters in Education, is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

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Abstract

Success rates remain a critical challenge in higher education. National and international data continue to suggest that the majority of students entering higher education withdraw before graduation. There is a strong indication in the literature that a student's integration into the academic and social systems of higher education plays a critical role in student retention, persistence and success. In addition, research data demonstrates that student success is strongly influenced by the experiences students encounter in their first year of study. Established interventions have not helped to stem the tide of dropout rates.

The primary aim of the study was therefore to investigate the academic and social integration of first-year students into the higher education system. The specific objectives were to explore the factors that contribute to academic and social integration, as well as the outcomes of academic and social integration in the first year of study. The study is grounded in Tinto's theory of student integration, which holds at its centre, the constructs of academic and social integration. Tinto's model proposes that academic and social integration are instrumental to students' persistence in higher education.

The methodology employed for the study is a systematic review, in an attempt to sum up the best available research in response to the research question. It involved identifying, selecting, appraising and synthesising all quality research relevant to the academic and social integration of first-year higher education students.

Several themes emerged from the systematic review. The main factors found to be contributing to academic integration were: interaction with academic staff, classroom and curriculum centrality, preparatory education, self-efficacy, interaction with peers, academic engagement, motivation and issues related to first-generation higher education students. Those for social integration were: interaction with peers, sense of belonging and identity, interaction with staff, involvement and accommodation issues. The main outcomes for both academic and social integration were found to be student retention, persistence and academic success. The findings are consistent with past research on academic and social integration.

Based on the emergent themes, recommendations were made with the aim of improving success rates in higher education. The results of the study could be of

particular value in the South African higher education context by offering insights into the global and local trends with regard to academic and social integration. The findings could hopefully offer possible responses to current critical student success challenges experienced in South African higher education, especially in the light of the call by the #FeesMustFall movement for free and decolonised education.

Keywords: academic integration, first-year, higher education, persistence, social integration, student retention, student success, systematic review.

Chapter 1

Introduction

1.1. Overview of Chapter

This introductory chapter outlines the main focus of the study. The background and rationale of the study are described and the aims are identified. Some of the key concepts are defined and the chapter is concluded with the outline of the chapters that follow.

1.2. Background and Motivation

Despite a huge body of research to analyse student attrition and dropout, the success rates of higher education students remain of critical concern worldwide. National and international data continue to suggest that the majority of students entering higher education withdraw before graduation (Barefoot, 2004; Beekhoven, De Jong & Van Hout, 2004; Manik, 2014; Tinto, 1975).

In addition to the concern around attrition rates in general, the literature further demonstrates that the rate is the greatest in the first year of study and that the first year is the most critical to student success (Crawford Sorey & Harris Duggan, 2008; Fowler & Zimitat, 2008; Rhodes & Nevill, 2004). For example, Fowler and Zimitat (2008) claim that as many as 30% of all undergraduate students in the first year of study have serious thoughts about discontinuing their studies, while Crawford Sorey and Harris Duggan (2008), report that around roughly half of the number of students who depart institutions do so within the first year.

According to the National Resource Centre for the First-Year Experience and Students in Transition in the United States of America (USA), student transitions such as the first year of higher education are “critical junctures in the educational pipeline and unique opportunities for post-secondary student learning and development” (“Core commitments,” n.d., para.2). Barefoot (2004) also confirms research data that indicates that student success is strongly influenced by the experiences that first-year students encounter during this year. These researchers report that experiences in and out of the classroom serve as a foundation from which the rest of students’ higher education experiences are built. Indeed, the first year of higher education seems to be

a pivotal year in the academic, intellectual, social and emotional development of students.

The South African higher education landscape looks no different. The most significant higher education policy document of the 1990s, the 1997 White Paper on higher education transformation addressed South Africa's development needs through increased access and the massification of higher education (Bozalek & Boughey, 2012). However, while widening access has led to a rapidly growing and increasingly diverse student population, experience has shown that the revolving door syndrome persists: simply put, increased numbers have not been met with equal degrees of student persistence and success. Equity in access has thus not been met with equity with success.

Wilson-Strydom (2011) reports that in the South African national cohort study of the year 2000, it was shown that of the group of first-time entering higher education students only about 30% had graduated within five years, 14% of students were still registered and 56% had 'dropped out' or were no longer active in the system. These are grim statistics. In a similar vein, Bozalek and Boughey (2012) also point out the general low performance, including the low participation and the low throughput and pass rate, of South African higher education compared to other countries. For example, cohort studies that track students from entry to exit identify graduation rates for contact universities as 40% in South Africa, 78% in the United Kingdom (UK) and 58% in the USA. Access to higher education is also generally lower in South Africa when participation rates between countries are examined (Bozalek & Boughey, 2012).

Similar findings from the South African Survey of Student Engagement (SASSE, 2010) indicate that the dropout rate among first-year undergraduate students still hovers at unsatisfactory levels. This research is also supported by Mentz (2012), who reports that in South Africa the experience of students in their first year of study is of particular concern as the majority of students who drop out of higher education do so in their first year.

Therefore, institutions aiming to improve outcomes in undergraduate education for diverse groups should focus attention on intentional institutional efforts to effectively intervene during the first year. Given the past inequities in South Africa, higher education has a fundamental role to play in building a solid democracy, and advancing transformation and social justice. It is clear, therefore, that the new challenge and main imperative remains: increased access should be accompanied by

corresponding success rates (Mentz, 2012), and this imperative translates into greater student support offered by the institution.

Realising the importance of these findings, educators and administrators have paid greater attention to the unique needs of first-year higher education students over the past twenty years. This has resulted in greater campus-wide, national and international conversations regarding the importance of the first year of higher education and it has aided in the development of many support programmes for first-year students.

One such initiative has been the introduction and expansion of the First-Year Experience (FYE) movement in many countries. The FYE is a programme that has its origins in the USA: it is instituted at many American colleges and universities and is designed to help students make the transition from high school to college or university. However, an FYE programme is larger than a single event or intervention like orientation (induction), and runs along a continuum of support for the entire first year. The FYE represents an intentional and comprehensive programme that consists of different components working together to increase academic performance, provide a cohesive learning experience, increase student persistence, assist in the transition to higher education, facilitate a sense of commitment and community to the university, and increase personal development (Barefoot, Fidler, Gardner, Moore & Roberts, 1999).

In South Africa, a national FYE organisation was launched two years ago by the University of Johannesburg. Some higher education institutions have already introduced an FYE programme on their campuses. Nelson Mandela Metropolitan University (NMMU), where I currently hold the position of Orientation Coordinator, is in the process of developing an FYE Programme called the First-Year Success (FYS) Programme.

In conducting informal research around my job, which entails developing and guiding the overall first-year orientation programme and executing the peer-led small-group How2@nmmu Buddy Programme, my interest was aroused about how my programme could contribute towards first-year transition to university. This search brought me to my interest in investigating the role of academic and social integration in first-year success.

There is a strong indication in the literature that a student's integration into the academic and social systems of higher education institutions plays a critical role in

student retention, persistence and success. A good first-year orientation programme facilitates the academic and social integration of students into the higher education system, and integration in turn promotes student persistence and retention, and hence student success rates. Therefore, a study to investigate the factors contributing to, and outcomes of, student integration in the first year would be an important one for higher education institutions in general, and in particular, for NMMU.

The findings of this investigation could make a significant contribution to NMMU and other higher education institutions in South Africa and beyond to assist with establishing suitable and meaningful interventions to improve academic and social integration and hence, student success rates.

From all of the above, it is clear that student attrition has indeed been a much studied phenomenon. In fact, Tinto (2012b) claims that few problems in higher education have received as much attention. Yet, despite this extensive research, the attrition rate remains a cause for concern. In some sense, this reflects to a significant degree, the failure of past research. A recent literature search indicates that there is indeed a huge body of research on the academic and social integration of first-year students into higher education. This body of research is mainly international research. There is only a small body of South African research on the topic. In the national and international literature search, there is evidence of only one other systematic review on the topic of academic and social integration (Pan, 2010). The study is inaccessible to this researcher, as it is an international dissertation.

This present study will, therefore, attempt to address the gap by employing a systematic review methodology, thereby synthesising the best literature on the topic. This will be done in the hope of strengthening research in this field, which will hopefully and ultimately contribute to improved interventions to enhance student retention, persistence and success.

The purpose of this study is thus to further investigate how students adjust to higher education institutions in their first year. It will do so by exploring the factors that contribute to integration and explore the outcomes of integration. It is hoped that the study will make a positive contribution to finding solutions to changing the *status quo* and hopefully provide some guidelines to enhance first-year retention.

The relevance of the study can also be firmly placed within the current #FeesMustFall and decolonisation debates in South African higher education. This context is sketched in the next section.

1.3. Current South African Higher Education Context

The #FeesMustFall uprising for free and decolonised higher education has plunged this sector into a crisis of near catastrophic proportions for part of 2015 and the latter part of 2016. It culminated in the closure of some of the institutions for weeks, threatening the progress of literally thousands of South African university students. The primary reason for the revolt is related to higher education fees that students regard as excessive and unaffordable for the majority. Even though South African higher education fees are among the least expensive in the fee-paying part of the world, fees remain exorbitant in a country where a large part of the population remains unemployed and poor.

Funding issues are closely associated with access and student success. The #FeesMustFall movement has simultaneously brought to light a critical situation related to widening access. Under duress from the state, the higher education sector has been obligated to widen its doors even further than before (see section above), allowing access to greater numbers of students, in an attempt to alleviate poverty in the country. However, the growth in student numbers has not been matched with an increase in funding. Universities, therefore, have to cope with many more students without the financial backing to do so adequately. The *status quo* has naturally had a negative effect on success rates for students. The higher education system is choked with students, especially first-year students, who are mostly under-prepared and who are trapped in the system.

The situation is explained rather clearly by South African Statistician-General, Dr Pali Lehohla, who says South African universities service nearly one million students, which is a significant “burden” because the figure should be closer to about 600,000 (Bateman, 2016). The figures show enrolments have grown from about 742,000 in 2015, to 985,000 in 2016, an increase of 243,000 in just one year – for 26 universities. Lehohla contends that the university system is unproductive and ineffective, with a huge discrepancy between the higher number of enrolments and graduates leaving the system (Bateman, 2016). He comments:

> If the throughput was successful, you'd expect no more than 600,000 students, including those who pursue doctorates, if people don't fail or repeat the

academic year. We have a million, so we have about 400,000 more students who are 'clogging the system.' (Bateman, 2016, n.p.)

Dr Lehohla points out that unless education is made a priority and unless "we see that we are in [on] a precipice as a country" (n.p.), there is no way, in which politically, we can mobilise it to be priority.

It becomes clear, therefore, that the state of affairs described above has exacerbated the already prevalent low throughput rates. Promoting academic and social integration should be considered a key component of making education the priority of which Lehohla speaks. In this way universities could play a vital role in improving student success rates.

The decolonising debate is a call for decolonised, Afrocentric education. The argument is that African philosophy and interests have been largely undermined in our education system. It is worth noting, too, that the decolonising issue is, in fact, closely connected to the African Renaissance discourse mentioned in Nkoane (2006) and so often championed by former president, Thabo Mbeki. Nkoane maintains that the African Renaissance is "couched within emancipatory indicatives" and has seen a "resurgence, re-invigoration, and reclamation" of African identity (p.49). Amongst others, the resurgence of these issues is a call for the production of knowledge which is relevant, effective and empowering for the people of the African continent, and more particularly, the immediate African societies the universities serve.

Likewise, students on our campuses have questioned the socially established role of universities and the apparent Eurocentric biases in curricula. They claim that decolonisation advances the interests of Africans, instead of advancing Eurocentric interests. There have, thus, been calls for decolonisation as it pertains to *what* is taught and *how* it is taught. As far as this issue relates to the current study, the appropriate implementation of academic and social integration as described in the next chapter, firstly, offers an ideal opportunity for the enactment or application of an African philosophy like *ubuntu*. *Ubuntu* is an ancient African word meaning "humanity to others" ("About ubuntu," n.d., para.1). For example, when students experience staff and the rest of the university environment as friendly, caring and nurturing, they integrate more successfully, improving their chances of success.

Decolonisation is, therefore, then also closely connected to the emergence of the humanising pedagogy as a philosophy in higher education. Treating students in a

more humane way is perhaps a deviation from the former rather unforgiving and punitive Eurocentric thinking that university students should be left to sink or swim. With massification and a whole new cohort of increasing diversity, a new imperative is needed, hence calling for a more caring and benevolent staff to student relationship.

Now that the background and motivation for the study have been sketched, and the current South African higher education scenario has been considered, the overview of the theoretical framework is presented.

1.4. Overview of Theoretical Framework

The theoretical framework used in this study is grounded in student development theory, using the model of Vincent Tinto (1993). Student development theory refers to the body of knowledge that theorizes how students develop and gain knowledge in post-secondary educational environments.

Student integration in higher education has been extensively studied worldwide since the 1970s – a time when research on student persistence and attrition began to proliferate. Some of the main researchers in this study discipline are Vincent Tinto, Ernest Pascarella, Patrick Terenzini, Alexander Astin and George Kuh. However, many of the theories used in studies of student retention have been developed in reference to a theoretical model of integration by Vincent Tinto (1993).

Tinto postulates that academic and social integration are instrumental to students' persistence in higher education. The model shows the critical importance of students' experiences in higher education social and academic systems in influencing their level of integration within the institution, which in turn affects their learning, and ultimately their decisions to persist or depart prematurely.

Interestingly, studies by Pascarella and Terenzini (1991) also indicate that academic and social integration are significant predictors of positive student retention. Expanding on this, McKay and Estrella (2008) explain that academic and social integration have been found to augment student success, measured by enhanced academic performance, engagement in academic and social experiences, and positive perceptions of the higher education environment.

Tinto (1993) developed a longitudinal model with the constructs of academic integration and social integration serving as its core. Tinto's model of student integration postulates that student persistence depends largely upon successful integration into an institution's academic and social systems.

Broadly understood, Tinto's model argues that individual departure from institutions can be viewed as arising from a longitudinal process of interactions between an individual with given attributes, skills, financial resources, prior educational experiences, and dispositions (intentions and commitments) and other members of the academic and social systems of the institution. The individual's experience in these systems, indicated by his/her intellectual (academic) and social (personal) integration, continually modifies his or her intentions and commitments. Positive experiences (that is, integrative ones) reinforce persistence through impact on heightened intentions and commitment, both to the goal of study completion in general, and to the specific institution. Negative or mal-integration experiences serve to weaken intentions and commitment, especially commitment to the institution, and thereby enhancing the likelihood of leaving.

Although Tinto's theory is the most widely accepted and sophisticated of student integration theories currently, it is not without critique. One of the main criticisms is that Tinto's theory is too generalised, a one-size-fits-all model to explain the full range of student attrition behaviour (McCubbin, 2003). According to Tinto's critics, the model is applicable solely to "traditional" students, namely, students who are White, male, middle class, 18-year old, full-time students who stay in a university or university-type residence. The model is not perceived by the critics to be generalisable to students from minority groups or to students who are not of traditional age. Students from minority groups are required to *fit in* with the new culture of the institution, which is generally based on White, Western, American mores. Similarly, Bozalek and Boughey (2012) comment that one of the main challenges facing higher education in South Africa is that students are required to study at a tertiary level in an academic cultural system that privileges particular ways of being, such as middle-class, English-speaking, White, Western and masculinist views. Several other criticisms will be discussed in the theoretical framework chapter.

Tinto defended his theory by explaining that the model was developed to explain certain, not all modes or facets of dropout behaviour (McCubbin, 2003). Despite the critique of Tinto's theory, it nevertheless still provides a solid framework for a study investigating the academic and social integration of students.

Significantly, Tinto (2012a, 2012b) also contends that student development and learning are dependent on how involved or *invested* a student is in his/her environment. According to him, involvement is necessary for integration into the

university environment, and integration increases the likelihood of persistence. Therefore, in further support of Tinto, it is also noteworthy that other renowned student development researchers used similar concepts to explain the importance of the integration of students for success: for example, Astin (1993) used the term *involvement* to describe student integration. Student involvement represents both the time and energy students invest in educationally purposeful activities and the effort institutions devote to using effective educational practices. Kuh (2008), on the other hand, used the concept *engagement* to describe student involvement. Studies show that students who leave college or university prematurely are less engaged than their counterparts who persist (Kuh, Kinzie, Schuh & Whitt, 2010).

The Tinto model has been widely researched and is widely used, therefore, it is regarded as an appropriate theoretical framework to use for this study.

1.5. Problem Formulation and Research Method

1.5.1. Statement of the problem. Given the continued universal struggle to improve student retention and success, it has become critical to investigate factors that contribute towards this goal. Despite a huge body of research on the academic and social integration of first-year students into higher education, attrition rates remain dismal.

From the extensive array of literature, as mentioned earlier in this chapter, there is evidence of only one other systematic review on the topic of academic and social integration (Pan, 2010). The study is inaccessible to this researcher, as it is an international dissertation. This present study will, therefore, attempt to address the gap by employing a systematic review methodology, thereby synthesising the extensive body of literature on the topic. It will be conducted in the hope of strengthening research in this field, which will hopefully and ultimately lead to improved interventions to enhance student retention, persistence and success.

1.5.2. Research aim and objectives. Based on the above problem statement, the primary aim of this study is to investigate the academic and social integration of first-year students into the higher education system. Therefore, the specific research objectives of this study are:

- to establish which factors contribute to the academic integration of first-year higher education students.
- to determine the outcomes of academic integration for first-year students in higher education.
- to establish which factors contribute to the social integration of first-year higher education students.
- to determine the outcomes of social integration for first-year students in higher education.

1.5.3. Research design and methodology. The methodology employed for this study will be a systematic review. A systematic review is an attempt to sum up the best available research on a specific question. Chalmers, Hedges and Cooper (2002) define a systematic review as the application of strategies that limit the bias in the collection, appraisal and synthesis of all relevant studies on a specific topic. It involves identifying, selecting, appraising and synthesising of all quality research relevant to the research question and makes use of rigorous research methodology (Bettany-Saltikov, 2010). Systematic review uses an objective and transparent approach for research synthesis, with the aim of minimising bias.

Because there is such a vast body of research on the topic of this study, a systematic review would provide a succinct overview of the research conducted thus far. The research would be particularly helpful to us in the South African higher education context by offering insight into the global and local trends on the topic, and help institutions fathom how we can best use the findings to benefit our students.

This review will be using quantitative, qualitative and mixed method studies. The research paradigm on which this approach is based will consequently be both the positivist and constructivist (interpretative) paradigms. The positivist philosophy argues that there is only one objective reality; quantitative methodologies are rooted in the positivist paradigm. The constructivist or interpretive philosophy supports the

view that there are many truths and multiple realities (De Vos, Strydom, Fouche & Delport, 2011). The qualitative methodology shares its foundation in this paradigm.

1.6. Definition of Key Concepts

The following key concepts are useful to know for the purposes of this study.

Dropout. Leaving university prematurely, that is, without completing a qualification. Retention and dropout are, therefore, opposites.

Higher education. These institutions provide post-secondary education to students after high school. South Africa currently has 26 universities offering degrees and/or diplomas. Since a great deal of the research on the topic stems from the USA, it might be useful to sketch the higher education scenario in that country. There are approximately 4,000 two-year and four-year institutions of higher learning in the United States. Degrees offered are Associates (two-year), Bachelors (four-year), Master's (post-Bachelors), Doctorate (post-Master's) and professional degrees (law and medicine) (Johnstone, 2014).

NB: This study uses the terms *university* and *higher education* interchangeably since all the research referred to in the study stems from international and South African universities as well as two-year community colleges in the USA. In general, Americans refer to university as college, including two-year and four-year institutions.

Massification. The term applies to the global exponential growth of enrolment in tertiary education; the process of bringing education to a world audience (Brown, 2014).

Millennial university students. While working to understand and educate today's higher education students, it is important to understand the current generational culture to which higher education students belong. Those of us who are Baby Boomers (born between 1946 and 1963) or from Generation X (born between 1964 and 1981) are likely to perceive and interpret things differently from each other, and differently from today's higher education students, dubbed as the Millennial University Generation (born between 1982 and 2004, or thereabouts) and the next Generation Z (2005-present). The millennial generation is also referred to as Generation Y, Nexters, Baby Boom Echo Generation, Echo Boomers, Digital Natives,

Generation Next, Generation Me and, of course, Millennials. The Millennial generation grew up with the internet and has always had the latest technology gadgets like computers, cell phones, tablets, etc. They are one of the most studied generations (Bart, 2011).

Persistence. Enrolling at a university and remaining enrolled until degree completion (Hagedorn, 2009).

Retention. Remaining at university until completion of a qualification like a diploma or a degree (Hagedorn, 2009). While universities seek to *retain* students, students seek to *persist* (Tinto, 2015).

Student departure. Leaving a university prematurely, though the student may enrol at a different institution and very well complete his or her studies there.

Student success. Broadly speaking, it refers to the achievement of academic *and* personal goals. Student success is more than obtaining a higher education qualification. It is associated with a variety of outcomes: student retention, persistence, student progress, throughput or graduation, academic achievement (succeeding by not only graduating in a time efficient manner, but achieving academic excellence through high performance) and holistic development (academic, personal and social skills and attributes).

Student Affairs (also known as Student Services or Student Governance). *Student Affairs* is the area within universities concerned with the development of students outside the classroom. In American literature, Student Affairs is also a common reference to the profession of non-academic support for university students (known as “Student Affairs Professionals” or the “field of Student Affairs”). A similar term, *Student Services*, is sometimes used. Student services describes the myriad service areas on a university campus whose purpose is providing academic and support services to students and academic staff. Student services are predominantly delivered by the Student Affairs division, and on most campuses include areas such as dean of students, career services, student health, counselling centre, academic support activities and leadership development, housing, disability support services and international student services. In South Africa, some universities use the same

name, *Student Affairs*, as our American counterparts; at NMMU, the division is called Student Governance and Development. However, at NMMU a large section of professional support staff is situated in a division called Higher Education, Access and Development Services (HEADS), which aligns its work more directly with the academic stream.

Student development. Unlike Student Affairs and student services (nouns), student development (verb) is less of an active entity as it is a conceptual and theoretical foundation used to understand and work with university students. It is the application of student development theories and principles which guide our work with university students, and which helps us properly assist them in their change, growth and development.

Student development theory. The body of human development theories focused on how individuals who are enrolled in university coursework develop. It merges physical, biological, physiological, psychological, social and environmental factors.

Throughput. Graduation. Completion of qualification.

Widening access. Recruiting students from less privileged backgrounds; attracting a representative proportion of students from low participation communities and working class backgrounds (Athwal, 2013).

1.7. Outline of the Study

The dissertation will be structured as follows.

Chapter 1. This chapter introduced the key elements of the study. The contextual and theoretical framework for the study was clarified. The aims and methods were outlined, and the key concepts were defined.

Chapter 2. The theoretical perspective of academic and social integration is provided in this chapter, with a particular focus on the work of Vincent Tinto.

Chapter 3. A literature overview of recent research regarding academic and social integration will be outlined in this chapter.

Chapter 4. Covered in this chapter is an exposition of the chosen research design and methodology on which the study is based.

Chapter 5. This chapter includes an analysis and interpretation of the data. The findings of this research study will also be discussed in this chapter.

Chapter 6. The conclusions, limitations, recommendations and value of the study will be discussed in this chapter.

Chapter 2

Theoretical Framework

2.1. Overview of Chapter

This chapter introduces the theoretical framework used in the study. The following aspects are discussed in relation to the theoretical framework: student development theory and Tinto's theory of student integration. Tinto's theory is presented and explored as the model on which the study is based. This is followed by the critique levelled at the theory, and finally, the rationale for using Tinto's model is presented.

2.2. Student Development Theory

The theoretical framework used in this study is grounded in student development theory, and more specifically, in the model of Vincent Tinto (1993).

Student development theory refers to the body of knowledge that theorises how students develop and gain knowledge in post-secondary educational environments. The following sub-sections provide an overview of student development theory. Firstly, an explanation of what is meant by the concept of student development itself and the process of student development is provided. Understanding these concepts helps Student Affairs practitioners understand the developmental challenges facing higher education students within the cognitive, intrapersonal and interpersonal domains, "independently and in combination" (Evans, Forney, Guido, Patton, & Renn, 2010, p.xvii). The explanation of these concepts follow below.

2.2.1. What is student development? Student development is a term that is used extensively in Student Affairs practice. Rodgers (1990) defines student development as "the ways that a student grows or progresses or increases his or her development capabilities as a result of enrolment at a place of higher education" (p.27). This seems to be a definitive and widely accepted definition in student development literature. Rodgers (1990) noted that student development is also a philosophy that has guided Student Affairs practice and served as the rationale for specific programmes and services since the inception of the profession. He sums up this

philosophy as “concern for the whole person” (p.27), which is an important consideration for student development practice.

Sanford (1967) saw development as a positive growth process in which the individual becomes increasingly able to integrate and act on many different experiences and influences. He distinguished development from *change*, which refers only to an altered state or condition that may be positive or negative, “progressive or regressive” (p.47); and also from *growth,* which refers to expansion that may be or not be favourable to overall function.

Furthermore, student development is the application of student development theories and principles that guide the work of Student Affairs professionals within the higher education context, and which helps students in their change, growth and development, or as Rodgers (1990) puts it, to encourage learning and student growth. Similarly, Miller and Prince (1976) suggest that student development is “the application of human development concepts in post-secondary settings so that everyone involved can master increasingly complex developmental tasks, achieve self-direction, and become independent” (p.3).

It becomes clear, therefore, that the concept of change is implied in student development, and hence, according to Knefelkamp, Widick and Parker (as cited in Evans et al., 2010), developmental theory should respond to four questions:

1. What interpersonal and intrapersonal changes occur while the student is at university?
2. What factors lead to this development?
3. What aspects of the university environment encourage or retard growth?
4. What developmental outcomes should we strive to achieve in university?

In line with the concept of change, more recently, since the 1980s, there has been a renewed focus on learning and learning outcomes in higher education, together with an evolution from student development to student learning as the primary focus of Student Affairs work (Schuh, Jones & Harper, 2011). Much of the attention is focused on the concept of learning both within and outside of Student Affairs. According to Schuh et al. (2011), two important works by Keeling, *Learning Reconsidered* and *Learning Reconsidered 2* respectively, claim that learning is inseparable from development. The author regards learning to be something larger and more transformative than development, incorporating both intellectual and

personal growth. Student Affairs professionals, therefore, assume a co-primary role with academic staff in the education of higher education students. Although some view the focus on learning as new, Schuh et al. (2011) argue that it simply reinforces the emphasis on learning that has been part of Student Affairs from the beginning. The movement has, however, changed the way Student Affairs professionals work in that they now focus on learning outcomes and creating curricula to guide the achievement of these outcomes. Moreover, it has become important for the profession to evaluate what its professionals do and whether it achieves its outcomes, in order to carry more weight in higher education institutions.

In summary, the following basic assumptions and concepts are related to student development:

- The individual student must be addressed holistically ("considered as a whole"). An inclusive approach is desirable, taking into account the physical, mental, emotional, and spiritual factors of an individual.
- Each student is a unique person and must be treated as such, taking into consideration physical, social, biological and cultural distinctions.
- Behaviour is a function of the person and the environment. The total campus environment of the student is educational and must be used to help the student achieve full development. The major responsibility for a student's personal and social development, though, rests with the student and his/her personal resources.
- Optimal student development requires an environment which provides a proper balance of challenge and support (Sanford, 1967).
- Crisis often results from disequilibrium (when one does not have the skills to manage a situation).

From the above discussion, it appears, therefore, that the essence of intentional student development is the interaction between the student and the educational environment, so that all aspects of the student's life are advanced. Now that the concept of student development and the process of student development have been clarified, an explanation of student development theory will be presented.

2.2.2. What is student development theory? Before defining student development theory, the question arises: What is theory? Rodgers (1990) defines formal theory as “a set of propositions regarding the interrelationship of two or more conceptual variables relevant to some realm of phenomena” (p.81). Theory provides a framework for understanding more than what is obvious from our informal observations and experiences. Likewise, Schuh, et al. (2011) reports that theory provides a strong basis for knowledge, expertise, and practice and serves as a foundation for the Student Affairs profession. Without theory, professionals may informally attempt to make sense of observations and phenomena. In addition to providing a foundation for practice, theories help professionals consider the relationships among elements we observe, attempts to make sense of complexities, connects what appears to be accidental and organises what appears to be muddled (Schuh, et al., 2011).

Furthermore, theory is derived from empirical investigation and, Schuh et al. (2011) observe that theory is an attempt to organise and integrate knowledge and to answer the question “why?”. In addition, theories also provide an overarching perspective about a certain trend or set of phenomena. All in all, Schuh et al. (2011) claim that theories serve at least six purposes: they are used to “describe, explain, predict, influence outcomes, assess practice and generate new knowledge and research” (p.151). It is important for Student Affairs practice to be based on theory as opposed to mere observation or assumption in order to be acknowledged as a meaningful discipline and to be recognised as making a significant contribution to student success.

Now that theory has been defined, the question is: ‘What is student development theory?’ Student development theory may be defined as the body of human development theories focused on how individuals who are enrolled in post-secondary coursework, develop. It merges physical, biological, physiological, psychological, social and environmental factors (Evans, et al., 2010).

Put another way, student development theory refers to the body of theory and associated concepts that attempt to explain the process of human development as it may apply to the growth and development of higher education students of any age.

These theories provide models and a framework for a stronger understanding of how students develop, which in turn provides useful information on how professionals can make decisions that are in the best interests of their students.

Furthermore, Evans et al. (2010) explain that student development theory provides the basis for the practice of student development. Understanding student development theory helps Student Affairs practitioners to understand and enhance students' personal growth and learning, as well as to identify and address student needs, design programmes, develop policies, and create healthy higher education environments that encourage positive growth in students (Evans, et al., 2010). However, because students are individuals, each student is a different individual with unique needs, and theory is simply a guide.

Because student development theories focus on intellectual growth as well as affective and behavioural changes during a student's higher education years, they also encourage partnerships between Student Affairs professionals and academic staff to enhance student learning and maximise positive student outcomes (Evans, et al., 2010).

Since the growth and development of students is the central goal of higher education as an entity, knowledge of student development theory is important not only for Student Affairs professionals, but also for all academic staff, and other professionals working closely with students. Collaboration between academic and Student Affairs staff is crucial to achieve holistic development for students. Student development theory is integrative in nature; it requires mutual cooperation and collaboration among all parties (students, academic staff, professional development staff and administrative staff).

An institution-wide focus on student success has become essential on today's higher education-campuses. While ten years ago many student affairs officers often operated in a vacuum, administrators are now working collaboratively across divisions to enhance the student life and academic experience of undergraduate and graduate students. It has become clear that the entire environment of the student should be taken into account and used for education. In this regard, theory-based work is helpful since the purpose of theory is that it creates a common language, enabling educators to talk with students and other staff about salient developmental issues (Evans, et al., 2010).

Overall, faced with different demographics, new expectations and increased competition, higher education institutions are rethinking who they serve, and how these changes are making the perspectives of Student Affairs professionals critical to a university's service initiatives and strategic planning, in general (Evans, et al., 2010).

Student development theory has been described and explained in this section. A brief history of this theory follows.

2.2.3. History of student development theory. Student development has its roots in the disciplines of psychology and sociology early in the twentieth century. Prior to this shift, the role of Student Affairs personnel was mainly to act *in loco parentis*, that is, taking the role of surrogate parents in guiding the students in their care towards developing good morals and character, and enforcing rules and order (Evans, et al., 2010).

Psychological theorists such as Freud, Jung and later Skinner, examined human behaviour "through a lens different from theologians who earlier espoused the fostering of Christian moral character as a goal for educators" in higher education institutions of the two previous centuries (Upcraft & Moore, 1990).

At first, Student Affairs personnel focused on vocational guidance; however, in the late 1960s, the combination of student activism in the USA, brought on by the Vietnam War and civil rights and women's movements, as well as developing psychological and sociological theories, changed the thinking about student development.

No longer were students primarily upper- and upper-middle class White males (Evans, et al., 2010, p.9). In the USA, women, war veterans, and students of colour and from all social class backgrounds were enrolling at universities in increasing numbers, and Student Affairs administrators sought information on their needs and perspectives. This shifting paradigm also reflected the idea that students learn both in and out of class, and are influenced both by their genetics and social environment (nature and nurture).

By the 1990s, that trend led to an explosion of Student Affairs offices and departments in USA higher education, charged with managing programmes, residential units, cultural centres, campus safety, career services, and virtually all other non-academic aspects of campus life.

Professionals first turned to the work of developmental psychologists like Erikson and Piaget for information about human development to help them understand the students with whom they were working (Evans, et al., 2010). Social psychologists and sociologists like Kurt Lewin contributed knowledge of group dynamics and the effect of the environment on human interaction (Evans, et al., 2010).

A wide array of theories, some new and updated, are now available to address various aspects of student development: psychosocial development (Chickering), intellectual development (Baxter Magolda; McCarn & Fassinger; Perry), multiple dimensions of identity (Abes, Jones, & McEwen; Jones & McEwen), multiple oppressions (Reynolds & Pope), self-authorship (Baxter Magolda), and mixed-race students (Renn) (Evans, et al., 2010). Notwithstanding, classic theories offered by Chickering, Perry, Kohlberg, and Tinto remain among the most frequently cited (Evans, et al., 2010).

Similar to the American roots of student development, in South Africa, student development is rooted in a socio-political context. The previous two decades have seen vast changes in the South African student population (De Jager & Van Lingen, 2012). Prior to the 1990s, higher education in South Africa was largely segregated, with separate universities for White, Black, Coloured and Indian students. Student populations were, by and large, homogeneous in terms of race, age, language and culture and educational standard.

Since the 1980s historically White universities started opening their doors to students from other race groups, and since the dawn of democracy in 1994, the student populations at historically White universities have diversified immensely. Student demographics across South African higher education institutions have changed to reflect national population demographics. It now also includes previously excluded communities like mature students and students with disabilities (De Jager & Van Lingen, 2012). With these changes, a new student development imperative was required to cater to the needs of the vastly diverse student population in order to advance student retention and success. Theoretical perspectives that are relevant to the South African context were needed. Mandew (2003) emphasises that a traditional theoretical model of higher education that focuses on students' individual needs and holistic development is not enough. Theoretical considerations relating to student development in South Africa must take into account the socio-political history of the country and its impact on the education system and on student development. This is worth bearing in mind as the new democracy progresses into the future. However, it is also important to consider and use whatever in current theories works for best practice in the South African context.

Though there are many models of student development, the basic premise is the same. Student development reflects theories of human growth and environmental influences as applied to in class and out of class learning opportunities.

As can be expected, new theories have developed with time. One such theory, is the “W-Curve”, which is discussed briefly below.

The W-Curve. New theories of working with university students are being designed all the time. Many of these new theories are based on newly conducted research and established by professionals who have spent their lives devoted to helping higher education students succeed. For example, according to Zeller and Mosier (1993), most new first-year students experience a predictable pattern of five stages after they arrive on-campus. The W-Curve includes the initial period of excitement upon arrival at university (honeymoon period), a period of discomfort with one’s new environment, often laden with crises (culture shock period), and followed by a period of adaptation and adjustment (initial adjustment period). This, in turn, is followed by a period of loneliness, often accompanied with academic challenges and missing one’s home environment (mental isolation period), and followed finally by a more stable adjustment and comfort with one’s total campus environment (acceptance and integration period). Awareness of these typical stages that most new first-year students experience may help those in the profession or working with and assisting higher education students. An illustration of the W-Curve is provided in Figure 1.

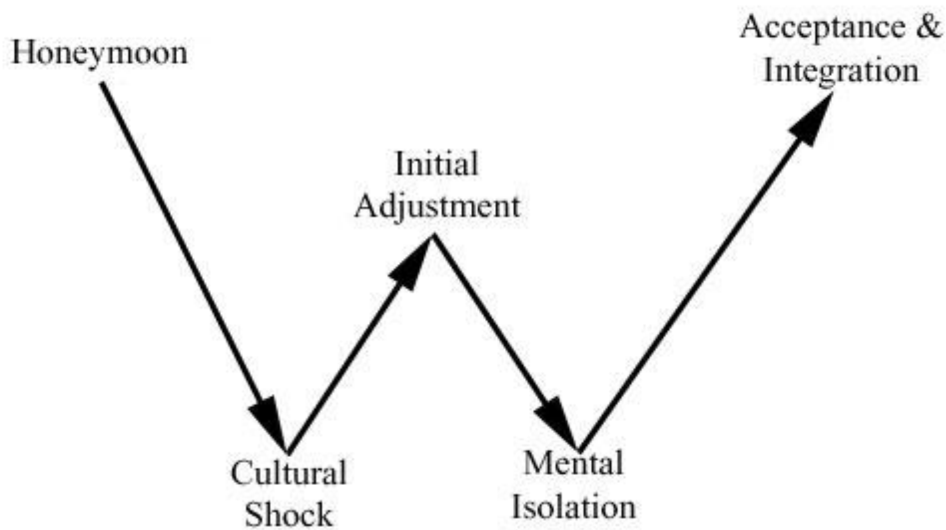

Figure 1. The W-Curve**.** From "Culture Shock and The First-Year Experience," by William J. Zeller and Robert Mosier, 1993, *Journal of College and University Student Housing, 23*(2), p.22.

The history of student development theory has been sketched, and will now be followed by an outline of student development theories.

2.2.4. Overview of theories. Many student development theories have developed over time. Schuh et al. (2011) provide a comprehensive list and description of student development theories from past to present. However, owing to the limitations of space in this study, only a brief overview of some of the main categories into which student development theories are classified, including the classic theories and the newer theories, are provided below:

- **Psychosocial**

  Examines individuals' personal and interpersonal lives
  - Erikson (eight development crises) – foundational theory
  - Chickering (seven vectors of development), built on Erikson
- **Cognitive-Structural**

  Examines the changes in the way people think
  - Perry (scheme of intellectual and ethic development)
  - Kohlberg (theory of moral development)
  - Gilligan (different voice model)

- **Identity**

Examines the complexities of race, class, gender, sexual orientation in personal and social development

  - Cross (African American identity formation)
  - Helms (White racial identity development)
  - Fassinger and Miller (lesbian and gay identity formation)

- **Typology**

Examines individual differences in how people view and relate to the world

  - Myers-Briggs, building on the work of Carl Jung
  - Holland (vocational personalities and work environments – six personality types)
  - Strengths Quest (positive psychology – Themes)

- **Generational**

Examines characteristics and experiences of a generation

  - Strauss and Howe (Millennials)

- **Person-Environment**

Examines how social, academic, and physical environments impact people (same environment differently)

  - Astin (Student involvement)
  - Tinto (Student integration)

Since many student development theories are built on what is generally called the foundation theories, it will be useful to provide a brief description of each of these.

Foundational theories (1950 – 1970). In the late 1960s, three major theories emerged and became the foundation for understanding student development for decades to come. These are called the foundational theories of the student development movement. Because these are the theories that underpin so many of the later theories, a brief description of each will be provided.

Building on Erikson's ideas about identity development, Arthur Chickering focused on developmental issues facing students at university (Evans, et al., 2010). His seven vectors of development are a widely used model in student development work. In 1968, William Perry introduced the first theory examining the intellectual

development of university students to be used extensively in student development practice. Building on Piaget's study of moral development of children, Lawrence Kohlberg's theory of moral reasoning emerged as a popular one used in the student development field (Evans, et al., 2010). In the years that followed (1970 onwards), many alternative theories developed based on different perspectives. Many of these newer theories are built on the foundation theories.

Flowing from the description of student development theory above, a description of the theoretical framework for this study will now be considered.

2.3. Tinto's Model of Student Integration

The theoretical framework for this study will be Tinto's model of student integration. The theory started out as a model to describe the process of institutional departure or dropout.

In their comprehensive classification of student development theories, Schuh et al. (2011) place Tinto's theory in the family of what they call "student success" theories. They mention that other models in this category are those of Braxton (student departure), Milem (modified model of student persistence) and Kuh (student engagement). These theories assist Student Affairs professionals in fostering student success. Schuh et al. (2011) define student success broadly as "encompassing academic achievement; engagement in educationally effective activities; satisfaction; acquisition of twenty-first century knowledge, skills and competencies…" (p.258).

On the other hand, Pascarella and Terenzini (1991) classify Tinto's theory as a "university impact model of student change" (p.50). Other theories in this category are Astin, Pascarella and most recently Weidman (Schuh et al., 2011). Astin's (1993) theory of involvement is one of the earliest models of university impact. He claims that students learn by becoming involved. Pascarella (1980) proposed a general causal model that includes more explicit consideration (than Tinto) of both the institution's structural characteristics and its general environment. Weidman (1989) suggested a model that seeks to incorporate both psychological and sociological structural influences on student change. He based his work on that of Chickering (1993) and Astin (1993), and hypothesized that students bring with them to university a whole set of important orienting background characteristics (socioeconomic status, aptitudes, values, etc.) and also "normative pressures" deriving from parents and other non-university "reference groups" (peers, employers, community) (Pascarella & Terenzini,

1991, p.55). Similar to the view of these theories in its dynamics, Tinto (1993; 2012b) introduced a model that would become one of the most widely used in student development disciplines, and will be discussed below.

Tinto's (1993) model is a longitudinal one that seeks to explain the university student retention (or conversely, attrition) process. His model of student integration is the most commonly referred to model in the student retention/dropout literature.

Tinto (1975; 1993) explained the higher education attrition process by borrowing largely from Emile Durkheim's theory of suicide and from the work of Spady, and also later incorporated the work of Van Gennep (Schuh et al., 2011; Deil-Amen, 2011; Mannan, 2007).

Spady proposed the first conceptual model of the attrition process. This model was based upon Durkheim's (1956) model on the social nature of suicide. Durkheim proposed that the desire to break ties with a social system grew from a lack of social integration between the individual and the larger society. Spady (1970) postulated that the same process could be at work in a decision to leave a particular institution of higher education. In Spady's model, normative congruence (the way that the student's goals, interests, and personality dispositions interact with the subsystems of the institution) affects other independent variables: academic performance, intellectual development, and friendship support. These interact with each other and in turn influence the degree to which a student becomes socially integrated into the institution. There is a direct positive relationship between the level of a student's social integration and the level of satisfaction the student experiences within the higher education system. This in turn causes the student to be more committed to the institution. It is the level of institutional commitment that has a direct effect on whether a student decides to stay or leave. The level of institutional commitment also feeds back into the normative congruence felt by the student.

Based on all these influences, Tinto (1993) published what is perhaps, to date, the most influential, and unquestionably the most researched model of the retention/attrition process. Like Spady (1970) before him, Tinto's model borrows from Durkheim's (1956) work on suicide and the concept that students will voluntarily withdraw from the local community if they are not socially integrated into it. However, in addition to Durkhiem's model, Tinto also incorporated Van Gennep's (1960) theory about rites of passage. From Van Gennep, Tinto included the concepts of separation, transition, and incorporation. On entering an institution of higher education, a student

must separate from past communities, transition from high school to the post-secondary environment, and become incorporated into the society of the institution.

According to Tinto (1993), individuals must successfully transition to the role of higher education students and become socially and academically integrated into the institution. The integration process takes place both in day-to-day interactions and (like Spady's normative congruence) through the intellectual sharing of values.

There are many models which seek to explain student departure from higher education, most of which have failed to stem the tide of student withdrawal. Tinto (1993, 2012a, 2012b) claims that most attempts have relied heavily on the psychosocial models of educational persistence. These have tended to emphasise the impact of individual abilities and dispositions on student departure, and that the latter is due largely to individual shortcomings or weaknesses. He argues, however, that this is only a partial truth. There is no one "departure-prone" personality that is uniformly associated with student attrition (Tinto, 2012b, p.85). These theories ignore the fact that individual behaviour is as much a function of the environment within which individuals finds themselves, as of individual characteristics. Learning from this shortcoming, Tinto theorised that the role played by the institution is as critical for persistence and success, as individual qualities.

Tinto (1975; 1993) developed a longitudinal model with the constructs of academic integration and social integration serving as its core. His model of student integration postulates that student persistence depends largely upon successful integration into an institution's academic and social systems. Integration, in turn, is influenced by pre-entry characteristics and goals, interactions with peers and academic staff, and out-of-classroom factors (Tinto, 1975; 1993). Simply put, the factors that influence academic and social integration, are (1) personal (pre-entry attributes and personal goal commitment of the student) and (2) institutional (institutional attributes that contribute to or hinder student integration). The outcomes of successful academic and social integration are adjustment, persistence, retention and eventually graduation.

Figure 2 illustrates Tinto's model of student integration.

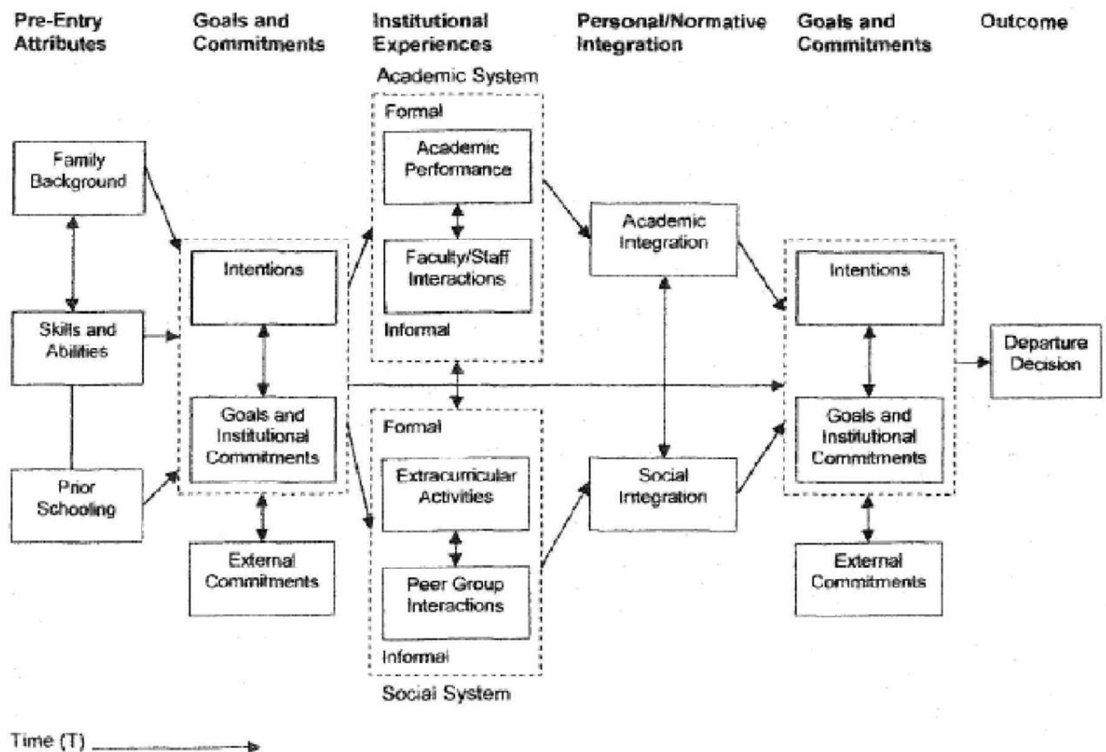

Figure 2. A diagrammatic representation of Tinto's model of student integration. Reproduced from *Leaving college: Rethinking the causes and cures of student attrition,* by Vincent Tinto, 1993, p.114. Chicago (IL): The University of Chicago Press.

Broadly understood, Tinto's model argues that individual departure from institutions can be viewed as arising from a longitudinal process of interactions between an individual with given attributes, skills, financial resources, prior educational experiences, and dispositions (intentions and commitments) and other members of the academic and social systems of the institution. The individual's experience in these systems, indicated by his/her intellectual (academic) and social (personal) integration, continually modifies his or her intentions and commitments. Positive experiences (that is, integrative ones) reinforce persistence through impact on heightened intentions and commitment, both to the goal of degree completion and to the institution. Negative or malintegration experiences serve to weaken intentions and commitment, especially commitment to the institution, and thereby enhancing the likelihood of leaving (Tinto, 2012b).

Put another way: as the student proceeds through post-secondary education, several variables influence the strength of the student-institution match: students enter higher education with a set of background characteristics that influence their higher

education experiences. These include family background (socio-economic status, parental values), individual attributes (race, gender) and pre-university schooling (secondary school academic performance, course of study). These characteristics combine to influence initial commitments to the institution and the goal of graduating. Tinto (2012b) measures successful academic integration by academic performance and evaluates social integration by the development and frequency of positive interaction with peers and staff and involvement in extracurricular activity. The stronger these commitments to the institution and the goal of completing their studies, as well as the higher the levels of academic and social integration, the less likely the student will be to withdraw from the particular higher education institution.

Tinto's model states that, in order to persist, students need integration into both formal (academic activities) and informal (academic and professional support staff interactions) academic systems, and into both formal (extracurricular activities) and informal (peer-group interactions) social systems.

Simultaneously, the model sees the institution, and the social and academic communities which comprise it, as being "nested" (Tinto, 2012b, p.115) in an external environment comprised of external communities with their own sets of values and behavioural requirements. As such, it recognises that for many students going to university is but one of a number of commitments they have to balance over the course of their university career. In this instance, external commitments are seen as altering the student's intentions (plans) and goal and institutional commitments both at entry and throughout their university career. They may do so largely, but not entirely, independent of the internal world of the institution.

Common distinctions that have been made with regard to attrition are whether attrition is institution specific or systemic, involuntary or voluntary in nature, and permanent or temporary in duration. However, for Tinto (2012b), whether a person transfers to another institution is not an issue of immediate concern. The immediate focus of the model is to explain why and how it is that some individuals come to depart their institution prior to completing their degree programmes. It is also important to note that the model pays special attention to the longitudinal process by which individuals *voluntarily* withdraw from the institution. Academic dismissal is not central to the discussion.

Furthermore, Tinto (2012b) explains that his model is intended to speak to the longitudinal process of departure as it occurs *within an institution* of higher education.

It focuses primarily, though not exclusively, on the events that occur within the institution following entry and/or which immediately precede entrance to it.

Tinto (2012b) further clarifies that his model seeks to explain how interactions among different individuals within the academic and social systems of the institution and the communities which comprise them lead individuals of different characteristics to withdraw from that institution prior to degree completion.

Since it focuses on multiple interactions which occur among members of the institution, the model is also primarily sociological in nature. That is, it looks to the social and intellectual context of the institution, its formal and informal interactional environment, as playing a central role in the longitudinal process of individual departure. Though it accepts as a given fact that individuals have much to do with their own leaving, it argues that the impact of individual attributes cannot be understood without reference to the social and intellectual context within which individuals find themselves.

Commitment to both study completion and to the institution is central to Tinto's (2012b) model. It is the interplay of these commitments that has direct impact on the dropout decision. Other things being equal, students will have more commitment to study completion, and to the institution, if they are successfully integrated into the social and academic systems of the university. Patterns of incongruence (lack of institutional or intellectual fit) and/or isolation (lack of meaningful connectedness to others) affect the decision to stay or leave by altering the level of commitment to study completion or the institution. If a student is highly committed to the goal of university graduation, he/she may decide to stay at a university even with little commitment to the particular institution or may decide to transfer and graduate elsewhere. A student, highly committed to the institution, may have enough incentive to continue on to graduation even if completion is not a significant goal.

Moreover, according to Tinto (2012b), decisions to withdraw are more a function of what occurs after entry than of what precedes it. They are reflections of the "dynamic nature of the social and intellectual life" (p. 5) of the communities within the institution, in particular of the daily interaction which occurs among its members. Student departure may serve as a barometer of the social and intellectual health of institutional life as much as of the experiences of the students in the institution.

Tinto (2012b) postulates that academic and social integration are instrumental to students' persistence in higher education. Studies by other notable student

development authors like Pascarella and Terenzini (1991) also indicate that academic and social integration are significant predictors of positive student retention. Expanding on this, McKay and Estrella (2008) explain that academic and social integration have been found to augment student success, measured by enhanced academic performance, engagement in academic and social experiences, and positive perceptions of the higher education environment.

Tinto (1993) also contends that student development and learning are dependent on how involved or *invested* a student is in his/her environment, a sentiment also expressed by Astin (1993). According to Tinto (1993), involvement is necessary for integration into the university environment, and integration increases the likelihood of persistence.

Pascarella and Terenzini (1991) found that not only was the frequency of informal contact with academic staff important, but also the quality of such contact. Such informal contact was also determined to be more important for students who had initial low commitment to the goal of study completion. Thus, frequent quality informal contact with academic staff could act as a compensatory influence on student persistence, especially for those who would seem most likely to withdraw.

For some, the use of the term *dropout* may in itself be problematical as it may be seen to label withdrawal as failure. Though the term has often been used in student attrition literature, even in Tinto's work, Tinto himself asserts that it may be preferable to use terms like student departure or student withdrawal (Tinto, 2012b).

Taking all of the above into account, Tinto (1993) makes the following recommendations:

- Higher education institutions must integrate students deliberately academically, socially, and intellectually with the culture of the institution.
- Higher education institutions should create opportunities for extracurricular activities, informal student interactions, and academic staff/student interactions.

Finally, although Tinto's theory is the most widely accepted and sophisticated of student integration theories currently, it is not without critique. A brief review of the model will now be considered.

2.4. Critique of Tinto's Model of Student Integration

While most research on Tinto's model is generally supportive, there are criticisms levelled at it.

One of the main criticisms is that Tinto's theory is too generalised, a one-size-fits-all model to explain the full range of student attrition behaviour (McCubbin 2003). According to Tinto's critics, the model is applicable solely to "traditional" students, namely, students who are White, male, middle class, 18-year old, full-time students who stay in a university or university-type residence. The model is not generalisable to students from minority groups or to students who are not of traditional age. Students from minority groups are required to "fit in" to the new culture of the institution, which is generally based on White, Western, mores. If they are unable to *fit in*, they are more likely to drop out (Tierney, 1992). Likewise, Bozalek and Boughey (2012) comment that one of the main challenges facing higher education in South Africa is that students are required to study at a tertiary level in an academic cultural system that privileges particular ways of being, such as middle-class, English-speaking, White, Western and masculinist views.

According to the critics, what Tinto's model failed to take into account is the institution's responsibility to adapt to a multicultural world.

According to Rendon (1994), currently, the majority of higher education students in the USA are women. Rendon also contends that in the USA, a new wave of immigrants is entering higher education. African American, Mexican American, Puerto Rican, American Indian and Asian students are emerging as a new student majority on some campuses. In addition, adult students, those over 25, constitute a sizable proportion of the student body. In South Africa, similar patterns appear. Black African students form the majority of the student population. Like in the USA, sizable numbers of first-generation students (first in their family to attend university) are enrolling in higher education institutions in South Africa (Bozalek & Boughey, 2012). Many students from families with poverty level incomes are seeking a higher education qualification as a means to a better life. Other non-racial student minorities such as Muslim and Indian students, students with disabilities, gays and lesbians, are demanding that universities respond to their needs (Rendon, 1994).

Educators, administrators, and researchers rely on theories of retention and student success, organisational development, learning, and campus environments in

their efforts to understand these diverse groups of students. Hence, this shortcoming in Tinto's theory becomes problematic in the higher education landscape the world faces today.

It is noted, in fact, that not only Tinto's theory, but that *many* of the theoretical models related to student development have been based on studies of 'traditional' student populations and are most useful in describing the attrition process of traditionally-aged resident first-year students (Pascarella & Terenzini, 1991; Spady, 1970; Tinto, 1993). They have been found to be much less useful in describing the attrition process for non-traditional students. Rendon (1994) reports that overall, race, racism, and racial realities have been generally ignored among the interrelationships and phenomena incorporated in theories pertaining to students and their development.

In addition to the critique mentioned above, a few studies have found results contrary to Tinto's theory. For example, Pascarella and Chapman (1983) found social integration, but not academic integration, to be a factor in attrition for students at residential institutions. Conversely, they found academic integration, but not social integration, to be at least indirectly related to attrition for students at commuter institutions. In a different study, Voorhees (1987) did not find social integration factors to be important to community college students (USA) who tend to be older, part-time, and commuters. In sharp contrast to this, Ashar and Skenes (1993) found only partial support for Tinto's model when studying groups of adult working students in a degree completion programme. They found social integration to have a positive effect on retention while academic integration was not found to be significant. Therefore, it appears that Tinto's results have not always been replicable.

Another criticism is that Tinto likened student dropout to Durkheim's concept of committing suicide: a student who was not integrated into the culture and mores of the institution, would be more likely to drop out (Tierney, 1992). The critics say that the concept of suicide is not applicable to student dropout. Tinto has since responded to this criticism by saying that he did not and does not think dropout is "akin" to suicide (Tinto, 2015, p.4). He claims that his use of Durkheim's (1956) theory was to emphasise the role of students' experiences, or what is now referred to as involvement or engagement, in the intellectual and social communities of the university in their decision to leave the community or university.

A further critique expounded by Tierney (1992) is that because Tinto's theory is based on Van Gennep's (1960) idea of rites of passage, in accordance with this

concept, a student would be required to discard his or her culture in order to be fully integrated into the new culture of the institution. The critique is aimed at the arrogance of the institution requiring students of minority groups to relinquish their culture and adapt to the new culture if they want to persist in their studies.

Tinto (2012a) defended his theory by explaining that the model was developed to explain certain, and not all modes or facets of dropout behaviour (McCubbin, 2003). Furthermore, though he developed his theory on the concepts of committing suicide and anthropological rituals, these do not form the core concepts of his theory; the core elements are those of academic and social integration. Tinto (2012a) took note of the criticisms, and adjusted his theory by emphasising the responsibility of the institution to support students from all backgrounds. In addition, he also modified his conceptualisation of the concepts of academic and social integration claiming that the two factors are part of one larger process and as such are indivisible and cannot be considered separately (Tinto, 2015). Previously the concepts of social integration and academic integration were also considered to be happening at the same time; now they are being considered to be of importance at different points throughout a student's academic development (Tinto, 2015). For example, at the very early start of a student's tertiary studies, social integration is regarded as more important than academic integration. If a student fails to make friends very early after entry he/she is more likely to leave rather than persist. However, it must be noted that social integration may be of lesser importance to a mature student studying part-time at the institution.

Furthermore, responding to the many studies done on attrition since 1975, often using his model as a guide, Tinto (1993) has refined his original model. Intentions and external commitments were now added to commitments to personal goals and commitment to the institution. Additionally, the academic and social systems were divided into formal and informal interactions. However, it is the recognition of the importance of the external environment, especially for students who live off-campus, that is the key difference between Tinto's original model and his more recent one. Tinto (1993) acknowledges that:

> … social congruency and social isolation appear to be not as important to the question of persistence and departure as they might among residential institutions, and that prior intentions, commitments, academic performance,

and external forces appear to be relatively more determinate of individual decisions to withdraw. (p.78)

According to Tinto (1993), attending university is just one of a host of things *done* by the non-traditional student, especially the returning adult student.

Tinto (1993) has also aptly stated that sufficient attention should be given to the development of group-specific models or methods to study student attrition to make the research more policy relevant (Mannan, 2007).

Having examined the critique of Tinto's theory, the rationale for using the theory, despite its limitations, will now be considered.

2.5. Rationale for using Tinto's theory

The rationale for using Tinto's theory will now be deliberated.

As mentioned earlier, educators, administrators, and researchers rely on theories of retention and student success, organizational development, learning, and campus environments in their efforts to understand the students in their care. Although these theories have inadequacies, they nevertheless still contribute substantially to higher education and student development.

Another point to consider is that theory by its very nature tends to be reductionistic, as it focuses on specific dimensions of a set of phenomena and how these dimensions fit together into an integrated and complex whole. It is well-nigh impossible for one theory to cover every conceivable difference in student populations. Students rarely fit into over-simplified paths: people are complicated, complex individuals, and as mentioned, theory by its nature, is reductionist; theory talks about "normal" development. However, reality is influenced by social, political, economic, ethnic, and gender-related factors**.**

Theory building provides lenses through which student development can be seen and understood more clearly. However, it is important to note that one lens does not last a lifetime because both the observer and the observed change over time.

What has been lacking in the knowledge and use of theory by higher education and student affairs professionals is a critical examination of theories: the research base, the perspective of the theorists, the research generated, and how theories evolve. Furthermore, the teaching of theory in graduate preparation programmes is mostly focused on knowing the theories and their various stages. It is also important,

however, that educators using a theory know themselves and recognize how their lenses or perspectives inform their interpretations and critiques. In order to use theory to inform and then transform practice, it is essential that higher education and student affairs professionals engage in a critical examination of theories and of themselves as users of theory. According to Rendon (1994), one such way is through exploring the often disregarded roles of race and racism.

Despite its limitations, Tinto's model has been followed by much research. The model has withstood careful scrutiny from the profession and has become accepted as the most useful for explaining the causes of student departure from higher education (Deil-Amen, 2011). Tinto's work is extensively used across the globe and he has worked with over 400 colleges and universities in the USA and many other countries around the world (Tinto, 2015). This must count for a great deal in terms of respect for the esteemed researcher. His work is cited in over 700 studies (Deil-Amen, 2011).

While the critique against Tinto's theory, especially its deficiencies in terms of considerations for race, age, gender, socioeconomic status, etcetera, are noted, one must take into account that most theories have limitations in that they deal mainly with but one aspect of student development. However, it is important to recognise that practitioners need to use theory to underpin their work. Therefore, an important recommendation is that, given the limitations of individual theories, practitioners should ideally use more than one theory to enhance their work with students in higher education. In this regard, Deil-Amen (2011) also suggests that rather than dismiss more traditional frameworks for understanding persistence (that is, Tinto), based on weaknesses, we should rather integrate the strength of such frameworks with current research on the experiences of marginalised and minority students.

Furthermore, since the early beginning, Tinto has made a number of modifications that improve his student retention theory. He states: "In addition to the inclusion of finances and external forces on student retention, more recent theory has recognised, among other things, the importance of student perceptions and the centrality of the classroom to student success" (Tinto, 2015, p.4).

The Tinto model is the most studied, tested, revised and critiqued in student development literature. Taking all of this into account, Tinto's theory remains a useful one to use in a study of student integration into an institution of higher learning.

In further support of this, it is noteworthy that other student development authors of note, used similar concepts to explain the importance of the integration of students for success: for example, Astin (1993) used the term “involvement” to describe student integration. Student involvement represents both the time and energy students invest in educationally purposeful activities and the effort institutions devote to using effective educational practices. Kuh et al. (2010), on the other hand, used the concept “engagement” to describe student involvement. Studies show that students who leave university or university prematurely are less engaged than their counterparts who persist (Kuh, et al., 2010).

The Tinto model has been widely researched and is widely used, therefore, I find it an appropriate theoretical framework to use for this study.

2.6. Concluding Remarks

This chapter presented the theoretical framework for the study. Student development theory was explained, followed by the different types of theories. Tinto’s theory of student integration was proposed as the framework on which the study will be based. The critique of Tinto’s theory was presented, followed lastly, by the rationale for using the theory.

The next chapter expands on the context for the study.

Chapter 3

Literature Review

3.1. Overview of Chapter

At the heart of Tinto's theory of student integration are the constructs of academic and social integration. Tinto (1993) claims that academic and social integration are necessary for student retention and persistence. Titles such as Tinto's *Leaving college: Rethinking the causes and cures of student attrition* (1993) and *Completing college* (2012), Astin's *Achieving educational excellence* (1985) and *What matters in college* (1993), Pascarella and Terenzini's *How college affects students* (1991), and Kuh, et al.'s *Student success in college* (2005), all demonstrate the scope of research that has been produced in this field.

It is clear, therefore, that a substantial body of research exists on the topic of student retention and persistence or the converse, student dropout or withdrawal. A significant amount of this literature is related to academic and social integration. An extensive literature review of the topic demonstrates the critical role played by academic and social integration in student persistence and success.

A literature search revealed that some of this research has been conducted in South Africa, Australia, The Netherlands and the United Kingdom (UK), but that by far most of the research in the field has been covered in the USA. Very few of the studies address the issues of academic and social integration as the main topic of the study. By far the majority deal with student retention and dropout as the main issues, and in varying degrees of description, academic and social integration as important contributing factors in stemming the tide of student dropout.

According to Tinto (1993), successful academic and social integration are influenced by pre-entry attributes like family background (first-generation students, minority groups); skills and abilities acquired and school background; goals and commitment (personal and institutional, as well as external commitments like part-time work); and the formal and informal experiences within the academic and social systems within the institution.

Successful academic and social integration, in turn, lead to persistence and student retention, and eventually to student success. Therefore, intentionally creating

an environment in which first-year students are provided with opportunities for social and academic campus engagement, assists students to integrate more successfully, and hence improve their chances of retention, persistence, and eventually, graduation.

This chapter focuses on prior research relevant to the academic and social integration of first-year students into the higher education system. It attempts to provide a better understanding of the national and international higher education dropout discourse which offsets the importance of student integration. The constructs of academic and social integration are described and the interconnectedness between the two is investigated.

An outline of student dropout will now be considered.

3.2. Student Dropout

Since concerns about dropout form the background for the study of academic and social integration, a brief discussion on the national and international dropout debate will be introduced.

Student dropout in higher education has been an ongoing concern for decades (Barefoot, 2004; Bitzer, 2009; Moodley & Singh, 2015; Tinto, 2015). According to Tinto (2015), the study of student retention and success is easily one of the most widely studied topics in higher education. In spite of 40 years of research, Tinto remarks that this work has not resulted in a solution to the problem (Tinto, 2015). Numerous studies, both international and local, report that dropout rates remain high, throughput rates remain low and time-to-completion is still unsatisfactory (Manik, 2014; Manik, 2015a; Muller, 2013; Ramrathan & Pillay, 2015).

Though the concept *dropout* is commonly used, some suggest that the term *dropout* is undesirable since it can carry negative connotations and stigma. Other terms often used in the literature to describe dropout are student withdrawal, student departure, student attrition and non-continuance. It is important to distinguish between different types of dropout: academic failure is when a student does not meet the pass requirements for a course, while voluntary withdrawal occurs when a student leaves without completing his or her qualification for reasons other than academic failure. Tinto (1993) states that failure to distinguish between these terms and define dropout adequately, frequently leads to contradictory findings and can have significant impact on questions of policy in higher education. Tillman (2002) makes this distinction and contends that only 15 to 25 percent of all institutional departures are as a result of

academic failure; the remaining 75 to 85 percent come as a result of voluntary withdrawal. While first-year failure rates remain a huge concern, the even greater percentage who leave voluntarily, is extremely worrying. It is therefore important for research to account for these significant dropout rates.

Sadly, most of the literature follows what is critiqued as the *rates* discourse, namely, the continual discussion or over-emphasis on the numbers, with very little discussion on the description of the phenomenon. For this reason, Tinto (2015) argues that more qualitative studies on the topic are imperative for the future.

Furthermore, the first year is regarded as the most critical year for student retention, persistence and success (Braxton, Jones, Hirschy & Hartley, 2008; Manik, 2014; Sibanyoni & Pillay, 2014) since it has the highest attrition rate of all year levels in higher education. For example, Braxton et al. (2008) indicate that more than a quarter of the students who enter four-year qualifications, and more than half who enrol at an institution that offers a two-year qualification in the USA, leave during their first year. The statistics for South Africa and other countries like Australia, are no better (Kift, Nelson & Clark, 2010; Letseka & Maile, 2008). The first year of higher education represents an enormous milestone in students' lives irrespective of qualification or whether they stay on-campus or commute. For this reason, the study of first-year dropout and measures to alleviate it are some of the most dominant themes in higher education literature.

Dropout issues in the international and South African higher education contexts are sketched below.

3.2.1. Dropout issues in international higher education. Student dropout in international higher education institutions (HEIs) remains a bone of contention and a serious challenge to administrators and other stakeholders**.**

Inadequate preparation for higher education, poor course matching which leads to low dedication and commitment, financial concerns, poor academic experience, inadequate integration into university culture and personal challenges are mentioned as some of the main factors responsible for early departure (Baker, 2012).

Hixenbaugh, Dewart and Towell (2012) found that students who were considering dropping out of university, were characterised by "poor estimations of physical health…, a poorer sense of well-being…, lower estimations of social

support…, a lower sense of integration…, and a lower level of satisfaction …with their course" (p.294).

Moreover, Beekhoven et al. (2004) are of the opinion that student departure can be seen as a lack of agreement between the standards and values of the student and the environment and, therefore, as unsuccessful integration. Entering university is seen as a new stage of life. They maintain that "[i]f the gap between life before and after entering university is not bridged and the interactions with the inhabitants of this new world are inadequate, the integration process fails and the student will drop out" (p.8).

Furthermore, consideration for staying is related to measures of commitment to the institution and positive evaluations of staff concern. Hixenbaugh et al. (2012) contend that when a student does not complete his or her course, everyone involved suffers the consequences: students and staff may experience a sense of personal failure, and institutions suffer financially and in terms of reputation. In addition, Yorke and Longden (2008), in their review of student retention, report that retention and completion rates are important measures of the performance of institutions in higher education systems.

It is clear, therefore, that several factors lead to dropout in international higher education and it is evident that dropout has negative consequences for all stakeholders. The South African higher education dropout scenario will now be outlined.

3.2.2. Dropout issues in South African higher education. From a thorough scan of the literature, it is evident that the findings from South African studies are no different to those of international ones (Bass, 2011; Bitzer, 2009; Manik, 2015b; Moodley & Singh, 2015): the issue of student retention is a challenge encountered by HEIs globally. Except for a few differences in degrees of challenge, HEIs in South Africa, Australia and the USA generally experience similar battles of how to deal successfully with an ever increasing wide diversity of students, their under-preparedness for studying in post-secondary settings and creating a curriculum to suit this diversity, in addition to the task of incorporating technology into the curriculum.

Like international HEIs, South African HEIs have embarked on massification, or widening access, to include access to groups that were traditionally excluded from the sector: students who are not White, middle class, male or able bodied. However,

the equity of access has not been matched by observable equity of outcomes (Ramrathan & Pillay, 2015). Studies in South Africa sketch some identical causes to international studies on student dropout. These include students' inadequate preparation for the academic demands of higher education, poor matching of courses, resulting in lack of commitment, financial burdens, negative academic experiences, lack of adequate integration and a host of personal trials (Manik, 2015b).

However, Letseka and Maile (2008) claim that South African universities rank amongst the lowest in the world in terms of progression and retention rates. The call by the Department of Higher Education and Training (DHET) for a total enrolment rise from 900 000 in 2011 to 1.5 million by 2030 intensifies the issue of attrition (Moodley & Singh, 2015; Manik 2014).

In South Africa especially, the issue also emanates from the social justice discourse (Manik, 2014), but widening access has not been matched with equal emphasis on success (Manik, 2015b). The high dropout and low success rates have serious implications for the transformation process in South Africa and on the economy as a whole (Sibanyoni & Pillay, 2014). Letseka and Maile (2008) report that the dropout rate was costing the National Treasury R4.5 billion in grants and subsidies to HEIs with little corresponding return on investment. They note that the characteristics which predispose students to early departure are: race, socio-economic status, level of education and first-generation students. Race and low socio-economic status in South Africa especially provide a double jeopardy for student attrition. As a result of the low retention rates, the DHET indicates that student retention must become a priority focus for national policy and for institutions themselves (DHET, 2014). Scott (2012) cautions that "unless there are decisive steps to improve success across the student body, African student attrition will increase disproportionately, defeating the object of widening access" (p.26).

Furthermore, the weak schooling system in South Africa contributes substantially to most students arriving at university with some or other backlog that requires academic support (Bitzer, 2009).

The low student success rates have led to the establishment of a plethora of interventions to help stem the tide of dropout: foundation programmes, extended programmes, academic support programmes and student services, and First-Year Experience (FYE) Programmes, amongst others. The most recent in the intervention discourse is the proposed introduction of a flexible undergraduate curriculum in which

up to a year of additional study will be added to the undergraduate programme to assist students in their studies.

Some of the main themes emanating from the South African literature on dropout are:

3.2.2.1. Race issues. Moodley and Singh (2015) report that a mere 5% of Black and Coloured students graduate from university. This demands the need for a more strategic and innovative approach to address student dropout, especially for previously disadvantaged students. However, the 2013 Council on Higher Education report points out that even though White students have been at a clear advantage in terms of schooling background, the dropout rate for White students is also alarmingly high (although lower than that of Black and Coloured students).

3.2.2.2. Financial issues. Financial aid issues continue to be a major factor in the lack of student persistence. A lack of finance was cited as the singular reason, as well as in combination with other factors, as a leading cause, of departure (Manik, 2014; Ramrathan & Pillay, 2015). Part-time work demands (to boost financial support) also impacted negatively on studies. Like many other studies, Bitzer (2009) contends that students' financial position in both pre- and mid-participation in higher education appears to be a factor impacting negatively on integration.

3.2.2.3. First year criticality. Similar to the international literature, South African studies indicate that the first year is the most critical year for student dropout (Moodley & Singh, 2015). For example, a report compiled by Letseka and Maile (2008) for the Human Sciences Research Council, revealed that of the 120 000 students who enrolled in higher education in 2000, 36 000 (30 percent) dropped out in the first year of study. A further 24 000 dropped out during their second year of study. Of the remaining 60 000, 22 percent graduated within the specified minimum period.

In summary, a study of both the national and international dropout scenario demonstrates that, despite years of research and subsequent interventions, the outlook for improving student success remains bleak. Academic and social integration are said to be critical factors to enhance student retention and success. A description of the constructs of academic and social integration follows.

3.3. Definition of Academic Integration

Though many definitions and descriptions of academic integration are offered in the literature, it is clear that there is a common thread that runs through them. There is mutual agreement that academic integration is associated with academic performance, intellectual development, meeting academic norms and standards, and interactions with academic staff and peers. Some of the definitions are explored below.

By and large, an individual's integration into the academic system of an HEI can be measured by his or her academic performance (Deil-Amen, 2011; Rhodes & Nevill, 2004; Rienties, Beausaert, Grohnert, Niemantsverdriet & Kommers, 2012; Thompson, 2016; Tinto, 1993). According to Tinto (1993), academic integration is also measured by a student's intellectual development during the university years. Academic performance pertains more directly to the meeting of a certain set academic standards, while intellectual development pertains more to the individual's identification with the norms of the academic system. The effect on dropout of insufficient integration into the academic system of the institution must be seen in terms of the student's changing educational and institutional commitments. In other words, insufficient academic integration has an effect on attrition insofar as it negatively affects a student's educational goals and commitment to the institution.

Academic integration is also often measured by an individual's *perception* of his or her academic ability (Deil-Amen, 2011; Rhodes & Nevill, 2004; Thompson, 2016), a connection with the subjects being studied, identification with his or her role as a student, and identification with the academic norms and values of the university. Rhodes and Nevill (2004) describe it as the development of a "strong affiliation with the academic environment both inside and outside of class" (p.97).

While McKay and Estrella (2008) stress that academic integration is achieved by means of more formal interactions with staff and peers that are often "related to educational concerns and academic content" (p.33), Rhodes and Nevill (2004) and Deil-Amen (2011) conclude that academic integration includes the *belief* that academic staff are personally committed to teaching and supporting students. Moreover, Deil-Amen (2011) claims that academic integration is also generally measured using variables like frequency of social contact or conversations with academic staff about academic or career matters outside of class and participation in out-of-class study groups, time spent on homework and enrolment in first-year seminars or workshops.

Furthermore, according to Rienties et al. (2012), academic adjustment (integration) refers to the degree of a student's success in coping with various educational demands such as motivation, application and satisfaction with the academic environment.

In conclusion, it is clear that academic integration is measured by both academic achievement and intellectual growth, by a student's self-perception of his or her academic ability, by whether a student identifies with the norms and standards of the institution, and how well he or she connects with staff and students on all matters academic.

A definition and description of social integration follows.

3.4. Definition of Social Integration

As for academic integration, definitions for social integration abound. Social integration refers to how well students connect with the social environment of the university, including staff and peers. Some definitions are explored.

According to Tinto (1993), given suitable levels of goal and institutional commitment, retention and persistence in higher education may also be affected by a student's integration into the social system of the HEI. Social integration is seen as the interaction between the individual with given sets of characteristics (backgrounds, values, commitments, etc.) and other persons of varying characteristics within the university. Social integration involves the extent of congruence between an individual and his or her social environment. This type of integration occurs primarily through informal peer group associations, semi-formal extracurricular activities, and interaction with teaching, professional and administrative staff within the HEI. Successful social integration involves varying levels of social communication, friendship support, staff support, the benefits of which affect the student's educational goals and institutional commitments.

As opposed to academic integration, social integration is defined as "a strong affiliation with the university's social milieu: peer group interaction, interaction with faculty [academic staff], and student organisations" (McKay & Estrella, 2008, p.357). Similarly, Wilcox, Winn and Fyvie-Gauld (2005), like Tinto (1993), emphasise that at this developmental stage of students' lives, key influences include the *quality* of relationships between academic staff and students and the process of establishing friendship networks. One of the most notable features of Tinto's model (1993) is that

social integration includes informal interaction with academic staff, including opportunities for satisfying informal non-academic related interactions between students and academic staff members, and the development of a professional relationship with at least one academic staff member.

Nunez (2009) and Deil-Amen (2011) also concur with Tinto's (1993) finding that social integration involves student participation in extracurricular activities (formal) and interaction with peers (informal). For example, Deil-Amen (2011) suggests that social integration is generally measured using variables to capture participation in university clubs and activities, sports participation, frequency with which students go places with their friends from university, peer group interactions, and informal out-of-class interactions and conversations with university teachers and other staff. Those authors who have investigated aspects of students' lives outside of their course, have found that the wider student experience plays a significant role in their decisions about staying at university or leaving. It is therefore evident that measures of social integration include participation in student groups, prevalence of friendships, experiences in the student residences, and other peer group interactions.

Very importantly, Wilcox et al. (2005) point out that there is an interconnectedness between social integration and institutional commitment and the two should be viewed as inseparable (for example, feelings of loneliness, isolation and disconnectedness can lead to a student leaving in the early weeks of university). Leaving in the early part of the course frequently results from a failure in social integration, such as difficulties in making friends or homesickness, and students' new social networks at university often provide support to overcome such difficulties, preventing dropout (Wilcox, et al., 2005).

In a similar vein, social adjustment, according to Rienties et al. (2012), describes how well students deal with the interpersonal-societal demands of higher education, such as making friends, being part of social activities and being able to work in groups.

In summary, it becomes clear that there is a common thread that runs through the various descriptions of social integration: social integration refers to higher education students interacting with, and developing quality formal and informal in- and out-of-classroom relationships with, students and academic staff. Social integration plays a significant role in institutional commitment and the lack of social adjustment or integration may lead to student attrition.

Now that academic and social integration have been defined, the connection between the two constructs will be described.

3.5. The Interconnectedness between Academic and Social Integration

Tinto (1993) emphasizes that distinguishing between the academic and social domains of higher education suggests that a person may be able to achieve integration in one area without doing so in the other. He comments: "Thus, a person can conceivably be integrated into the social sphere of the university and still drop out because of insufficient integration into the academic domain of the university" (p.115), for example, because of poor academic performance. Conversely, a person may perform adequately in the academic domain and still drop out because of insufficient integration into the social realm of the institution, for example, through voluntary withdrawal. Therefore, both forms of integration are required to achieve success at university.

However, several studies have found the two forms of integration to be interconnected (Tinto, 1993). When both forms of integration occur, students are more likely to persist, and one form of integration can act as a vehicle for the other form of integration. While most American studies have found that social and academic integration matter to some extent for persistence among students at four-year institutions (in the USA), the relative importance of each form is disputed, especially for students at two-year institutions or community colleges (in the USA), and for commuter students (students living off-campus). For example, Tinto himself (1993) found that for commuter students, background characteristics and external circumstances have a greater impact on persistence than on-campus factors.

Moreover, researchers have also found that social integration precedes academic integration: a feeling of isolation, difficulty adjusting to a new environment and an inability to integrate into a new culture are key factors responsible for student attrition. As described earlier in this chapter, if a student finds it hard to make friends early or finds incongruence with the norms and values of the university, he or she may decide to leave. Though academic difficulties also have an influence on a student's decision to depart before degree completion, Wilcox et al. (2005) maintain that in the first year at university the likelihood is that academic integration takes a secondary position to social integration, and, therefore, support from academic staff is essential in underpinning integration into the course.

While some researchers hypothesised that academic potential (high school results, high school quality and admission point score) directly influences academic performance and intellectual development in higher education, it is important to note, as Wilcox et al. (2005) did, that academic potential did not have a direct influence on institutional commitment in the first year of higher education. Friendship support, in contrast, has a strong influence on institutional commitment, and hence, on decisions to drop out of university (Hurtado, Han, Sa'enz, Espinosa, Cabrera & Cerna, 2007).

Tinto (1993) critiqued his own model of integration, which portrays the social and academic systems of higher education as two separate entities. He later acknowledged a "fuller relationship between these two spheres of activity" (Tinto, 1993, p.619), and granted that social and academic life are interwoven. Deil-Amen (2011) comments that such a conceptual distinction between academic and social integration creates "a false dichotomy that obscures the nature of the fused socio-academic encounters that dominate the integration experiences" (p.72). She uses the term "socio-academic integrative moments" to describe the opportunities for specific instances of interaction in which "components of social and academic integration are simultaneously combined" (p.72). These "moments" do not have to be formally structured, in-depth or routine. Socio-academic integrative moments can often be situations where academic influence is coupled with elements of social integration – which also provide opportunities to enhance feelings of belonging, institutional identity and academic competence.

While social interaction situations have social benefits like creating a greater sense of belonging and student and institutional identity, they are also very important opportunities for information gathering and information exchange. Deil-Amen (2011) states that this suggests an additional social capital dimension to Tinto's (1993) emphasis on integration and normative fit. Bourdieu, cited in Deil-Amen (2011), defines social capital as a set of lasting, deliberate, institutionalised relationships and the benefits that accumulate to individuals as a result of the existence of such social bonds. Relationships with lecturing staff, counsellors and other professional staff and/or other students provide the social capital to strengthen academic knowledge and offer encouragement, support, motivation and information related to "cognitive, behavioural, and procedural strategies for success in class, university, and career" (Deil-Amen, 2011, p.82). This support is especially important for first-generation

students, who are fragile in their academic role, and who are especially not likely to have ready access to this information through family networks.

Consistent with previous research, Deil-Amen's (2011) study shows academic integration to be more significant than social integration for community college students (USA), and that for them social integration is unrelated to persistence. Academic integration appears more prominent and relevant in Deil-Amen's study, arising from very limited opportunities for social integration owing to the personal lives of students who attend community colleges, most of whom are from poorer socio-economic households or are older individuals who hold down full-time jobs and return to further studies to improve their lives. In these instances, academic integration takes on a slightly more social form, and social integration was often characterised by "academic utility" (Deil-Amen, 2011, p.82). This once again emphasises the classroom criticality discourse, in that in-classroom interactions can be leading instruments of socio-academic integration, for all students, but especially for non-traditional and commuting students.

The relationship between academic and social integration and dropout, and in turn between goal and institutional commitment and dropout, is asymmetrical in nature (Tinto, 2012b), namely, integration into the academic system of the university directly affects educational goal attainment, whereas behaviours in the social system directly affects a student's institutional commitment.

Now that the key constructs of academic and social integration have been defined, and the interconnectedness between the two described, a review of the international and national literature on these concepts are examined.

However, as mentioned earlier, academic and social integration are often interwoven and should not really be separated. Though the connection between the two processes are evident, for the sake of organisation, and to highlight the conceptualisation of each, the two concepts will be discussed separately in this study.

A review of the past research of academic integration is now considered.

3.6. Previous Research: Academic Integration

A review of past literature of academic integration will now be explored, starting with international studies, and followed by South African studies.

3.6.1. International studies.

International studies generally find that academic and social integration predict institutional commitment and student determination to complete their studies. Institutional commitment and goal commitment, in turn, have a positive effect on student retention, persistence and success. For example, Hixenbaugh et al. (2012), like Tinto (1993), suggest that there is a direct link between involvement with the institution and attrition: students who are more involved and engaged with and within the institution, are less likely to drop out from higher education. There is also an indirect effect: social and academic integration may buffer the negative effects of a number of other possible variables in student persistence, such as financial hardship, long external working hours and poor physical and psychological health.

Several factors influence academic integration and academic success. Certain themes emerge from the literature reviewed. These themes will now be explored.

3.6.1.1. First year criticality.

The first year is critical to student success (Baker, 2012; Tinto, 2015; Wilcox, et al., 2005). It is the year that Tinto calls the year of “becoming,” when newly admitted students have to acquire the academic and social skills needed to succeed at university (Tinto, 2015, p.8). This is the reason why academic and social support is focused on the first year of study. This is also why student academic and social integration in the first year is so important, since it promotes student retention and success.

Much research points to the first year of undergraduate study as the strategic time for establishing social relationships, becoming involved with academic life, feeling integrated and developing a sense of belonging (Hixenbaugh, et al., 2012; Rhodes & Nevill, 2004). As a result, first-year higher education students attract a phenomenal amount of interest and consideration from researchers, administrators and educators. Consequently, an impressive body of research, practice and policy designed to improve the first-year experience of higher education students has been generated, with the broad aim of increasing student retention and success rates.

Tinto (2015) reminds us that the first year is the year of "becoming capable of succeeding in the university" (p.11).

3.6.1.2. First-generation students. The implementation of widening participation in higher education has meant that there has been an increase in the number of students who are the first in their family to go to university. Research has found that these students are at a disadvantage and are more at risk for non-completion of their studies. They are less likely to know what to expect and what is expected of them. They also tend to have less financial support from their parents, and, therefore, need to work more hours to support themselves (Hixenbaugh, et al., 2012). Pascarella and Terenzini (1980, 2005) contend that not only are these students confronted by all the "apprehensions, displacements and difficulties" of any higher education student, but their experiences also involve substantial cultural, as well as social and academic transitions (cited in Muller, 2013, p.22).

3.6.1.3. Curriculum criticality. The curriculum has emerged as a critical factor in academic integration and the subsequent retention and persistence of students. Bovill, Bulley and Morss (2011) point out that existing research clearly identifies the curriculum as the key driver for improving student engagement, and, thereby, student success.

In response to Tinto's (2015) observation that "substantial gains in student retention have been hard to come by" and that "there is much that we have not yet done to translate our research and theory into effective practice" (p.2), Kift et al. (2010) propose what they call a "transition pedagogy." Transition pedagogy is a conceptualisation that has the optimal capacity to deliver an integrated and holistic first-year experience, in which an intentionally designed first-year curriculum is employed to facilitate the learning experiences of diverse commencing cohorts. They add, though, that individual institutional context is important for such a programme to be optimally effective to reduce attrition and maximise learning and engagement. They stress that students must be fully engaged if they are to have a successful university experience.

Other approaches include identifying the connection between curricular and co-curricular influences on the first-year experience, raising awareness of its importance, and bringing the two together for programme coherence. The conceptualisation of

curriculum centrality as the missing link indicates that curriculum has the potential to be the academic and social mechanism or the "glue" that holds all student experience together (Kift, et al., 2010, p.7). Professional partnerships across all institutional aspects are essential to successful student integration and implementation of curricular and co-curricular activities and the seamlessness of the student experience.

As Tinto (2015) has observed, student success does not arrive by chance. It is rather the outcome of an "intentional, structured, and proactive set of strategies that are coherent and systematic in nature and carefully aligned to the same goal" (p.10). Moreover, Kift et al. (2010) argue that curriculum is conceptualised broadly to encompass the total undergraduate student experience of engagement with their new programme of study. Curriculum in this sense comprises *all* of the academic, social and support aspects of the student experience, and focuses on the educational environment in which students are placed (Tinto, 2012a, 2012b). It, therefore, also includes the co-curricular opportunities with which students are provided in which to engage (Kift, et al., 2010). Kift et al. emphasise that the curriculum is what students have in common, and because the curriculum is within the control of the institution, it is obligatory that the institution intentionally pursues and employs the curriculum as a vehicle for best practice to enhance student engagement and overall success. To do otherwise is to leave student success to chance (Tinto, 2012b) because then responses would be "bolted-on, piecemeal, and de-contextualised and, from the student perspective, appear to be irrelevant to the core business of learning" (Kift, et al., 2010, p.8). Kift et al. also add that nowhere is this issue more important than in the critical first year of higher education when "student success is so much in doubt", both from the point of view of the institution and from the student (p.8).

To optimise student success, Severiens and Schmidt (2009) suggest it is important to take students' [diverse] approaches to studying as a starting point when designing curricula and assessment methods. In other words, students' stages of intellectual development, learning styles and cultural backgrounds, should be taken into consideration in the design of curricula. For example, Pascarella and Terenzini, (2005) point out the value of teaching to students' learning style. They found that students receiving instruction matched to their learning style gain an advantage of .91 of a standard deviation over their counterparts who have not received instruction that accommodates their preferred learning style. These results emphasise the critical nature of the curriculum as a contributor to student success, as well as the importance

of having suitably qualified teaching staff who are able to provide the desired teaching approach to a diverse student cohort.

Ironically, higher education teaching staff are the only teaching staff in education from primary school to university, who do not require a teaching qualification to teach their own students (Tinto 1993).

Moreover, students' perception of the value and relevance of the curriculum also has an impact on whether a student will withdraw or not (Tinto, 2015). For many students, the extrinsic rewards of their studies drives them, but for some others, when they perceive little intrinsic value in their studies or little connection to their lives, they will withdraw. The fault may lie with academics who do not make clear how subjects can be meaningfully contextualised to real world problems.

3.6.1.4. Classroom centrality. Closely linked to the critical nature of the curriculum for student engagement and success, is the increasing attention being paid to the classroom as a central component and common denominator of student retention and persistence.

Tinto (2012a) claims that certain institutional environments can influence students' success. While students' efforts and learning are the keys to their success, institutions have the capacity to generate effort and, in turn, impact on student learning and success. In this regard, he views the classroom as the foundation for lecturer-student meeting and engagement where support is offered and student involvement is encouraged. The classroom is the epicentre of lecturer-student engagement. Likewise, Kift et al. (2011) found classroom centrality to be the fulcrum of student integration, and hence persistence and success.

Kift, et al. (2010), like Tinto (2015), point out that there has been a growing focus on the importance of the classroom to student success. Since nationally and internationally, the majority of students do not live on-campus, and many may have part-time and other obligations beyond the campus, for them, the only time they are on campus is in the classroom (Kift, et al., 2010; Yorke & Longden, 2008). When class is over, they may leave to attend to other obligations. Therefore, if they are not engaged in the classroom, it is unlikely that they will become engaged elsewhere. For many students, thus, the classroom serves as a primary point of engagement, and for many first-year students "the initial port of entry to academic and social engagement within the university" (Tinto, 2015, p.6). These findings shed light on the important role

academics play in institutional efforts to promote student retention. They highlight the "impact of pedagogy and the ability of academics to construct classrooms, especially in the first year, in which students are required to be actively engaged, preferably with other students, in learning activities" (Tinto, 2015, p.10).

Again, as for the curriculum criticality, ironically, higher education teaching staff are the only teaching staff in education from primary school to university, who do not require a teaching qualification to teach their own students (Tinto, 1993), raising important issues of the quality and skills of teaching staff to provide the optimal classroom experience for student engagement and success.

For both commuting students and community college students (USA) academic and social integration must occur in the classroom. The classroom serves as a gateway to academic and social involvement in university. For students with limited time and other resources, and little inclination to seek help outside of class, the academic experience becomes the central vehicle for integration. Tinto (1993) also found that a more formalised learning community which lends itself to building supportive peer groups is instrumental in helping commuting and minority students integrate into a network of peers to ease their transition into university.

In addition, Tinto (2015) notes that classrooms are changing as we live in an increasingly technological society and students are able to learn beyond the confines of the classroom and gain vast amounts of knowledge and information not limited to time and place. However, Tinto (2015) maintains that learning in its deepest sense is a social phenomenon that is "best pursued with others" (p.12). He adds that we have reason to be concerned not only about what is being lost with technologies, but also the "pressures that such learning places on the process that underlies retention, one that is both academic and social" (p.12). He suggests that the technologies should be used to promote the types of educational communities that produce the kinds of learning desired, and hence the retention hoped for to benefit all students, and not just some. He aptly reminds us that the goal of retention is student learning and that retention is only the vehicle by which it occurs (Tinto, 2015).

3.6.1.5. Academic staff interaction. It has been well documented in the research that teaching staff play a vital role in student success. For example, Astin (1985) states that students who interact more frequently with academic staff report significantly greater satisfaction with the university environment. Similarly, Pascarella

and Terenzini (2005) also emphasise the influence of lecturing staff on student retention and satisfaction, while Tillman (2002) argues that having academic staff as mentors as a form of academic staff interaction is worthwhile and, in fact, critical to student persistence.

Research on student diversity on campuses, place importance on the value of academic staff-student interactions on the academic performance and persistence of minority groups (Deil-Amen, 2011). Deil-Amen also further comments that marginalised students are more successful at navigating their way through higher education when they "benefit from key forms of assistance from institutional agents" (p.58). Contact with teaching staff over academic matters not only provides much needed academic support, but can also enhance feelings of belonging for marginalised students.

In Deil-Amen's (2011) study of two-year institutions in the USA, students expressed the value of how their support networks were grounded in close interpersonal interactions with their instructors in and out of the classroom – "They know you by name, they know your family situation, they know where you're coming from…" (p.80). This sense of friendship and substitute family found in academic staff-student relationships, and the mentorship role assumed by lecturing staff can have a profound effect on student persistence, motivation and ultimately success.

Interaction with academic staff not only increases social integration and, therefore, institutional commitment, but also increases the individual's academic integration. Spady (1970) argues that lecturer-student interaction supports not only the student's intellectual development, but is also likely to enhance academic performance.

Early connections with lecturers could enhance students' sense of belonging and make them more likely to remain enrolled and successful.

Deil-Amen (2011) further found that lecturer-student and student-student interactions in the classroom are important contributors to students' sense of comfort in the higher education environment. In Deil-Amen's (2011) study, she found that the majority of students identified the support and approachability of lecturers and other students within the classroom as fundamental to their feelings of comfort in higher education.

Finally, research also indicates that inter-racial interactions of minority students with lecturers in and out of class and with other students, over academic matters, have

a positive relationship with intellectual self-concept, academic performance, and persistence at predominantly White four-year higher education institutions in the USA (Deil-Amen, 2011).

It is clear, therefore, that academic staff play a pivotal role in academic integration and student success.

3.6.1.6. Engagement. Bovill et al. (2011) argue that, while student retention may be the main reason for improving the student experience at university, it should not be the main focus. They contend that student engagement and empowerment as a means of enhancing the first-year experience is equally important. This is in line with the age-old debate of what constitutes student success or what education is for. The answer is generally that student success is much more than merely achieving good academic results or completing a qualification; the purpose of true education must involve holistic student learning. The limited scope of this study does not allow for a deeper discussion on the topic, but what is important to note, according to Bovill et al. (2011), is that engagement and empowerment as a means of enhancing the first-year experience is a goal in itself. Krause (2006) describes engagement as the time, energy and resources students devote to activities designed to enhance learning at university. Engagement is therefore very much about improving a student’s experience, and in this way enriching his or her learning, often in a way that is not reflected in an assessment mark.

The work of Astin (1993) and Kuh (2008) serve as the foundation for a theory of student retention that stresses the importance of student academic and social engagement and involvement, and has been instrumental in the development of a range of programmes to enhance student engagement and involvement with the aim of increasing retention and degree completion.

In his 2015 keynote address in Norway, Tinto points out that what matters is not engagement as such, but the *meaning* students derive from their engagement with other students and staff with regard to their membership in the university community. The underlying force of student success, therefore, is based on “how students’ interactions or engagements with others on-campus lead them to perceive themselves as valued members of a community that has academic and social dimensions” (p.5). This perception generates, in turn, a commitment on the parts of students to the institution, and it is this commitment that is the basis for retention.

3.6.1.7. Student deficit discourse versus institutional responsibility. In the past, and at times in the present, the challenge of student dropout has been articulated mainly from a student-deficit discourse (Tinto, 1993, 2015). The problem has been laid at the door of the students: they are the problem; they lack the knowledge and skills to succeed at university. However, in recent years there has been a shift in thinking to include institutional responsibility for student retention (Tinto, 2015). In the past, insufficient attention has been given to institutional deficiencies or shortfalls. There is now, however, newer insight and the recognition that institutions themselves lack preparedness in dealing with the challenges faced by students in their care.

The conceptualisation of the belief of institutional responsibility represents the shift away from the original explanation in the dropout discourse that blamed the victim, namely, that dropout was primarily the reflection of the attributes of those who dropped out. However, newer insights show that partial, if not prime, responsibility has to be assigned to the educational institutions where students are enrolled. Tinto (2015) ventures to say that institutions act in ways that "helped produce the very dropout about which they often complained" (p.3). In this regard, Tinto (2015) is keen to point out that student success does not arrive by accident. Neither do good intentions guarantee improvement. Student success is rather the result of an "intentional, structured, and coordinated course of action" of many stakeholders in the institution (Tinto, 2015, p.2). The institutional responsibility discourse argues that, to promote better outcomes, institutions should adapt and cater to the needs of their students rather than the other way round. It is essential that these efforts to improve retention are aligned and systematic. It also requires clear and measurable goals.

These same sentiments are echoed by Kift et al. (2010), who, like Tinto (2015) maintain that the responsibility for student retention and engagement should not rest solely on commencing students, but that institutions and their teaching and support staff have an obligation to provide the "necessary conditions, circumstances, environment and opportunities" (p.7) for such engagement to occur. Therefore, Kift et al. (2010) argue that the personal, social and academic competencies of students have to be addressed by institutionally-initiated engagement activities. In this regard, Astin (1993) cautions that learning will occur when the learning environment is structured in a way that encourages active participation by the student. Student involvement (Astin,1993) and engagement (Kuh, 2005) are regarded as important for

successful academic integration and hence for student retention, persistence and success. Students learn more the more they are involved in and dedicate energy to academic studies, spend time on campus, participate actively in student organisations and activities, interact with lecturers and other staff and other students. Astin (1993) concedes, though, that students do play a vital role in determining their own degree of involvement. However, there is sufficient evidence in the literature that student performance is influenced by more than the ability of the student (Astin, 1993; Pascarella & Terenzini, 2005; Tinto, 2012b).

In a similar vein, an important finding by Yorke and Longden (2008) in their analysis of the literature on the student experience, is that two of the broad areas of institutional activity through which student success can be enhanced, are institutional commitment to student learning and consequently to student engagement, and proactive management of student transition.

A key factor that can increase student success is a change in institutional character. However, the question arises as to how willing institutions are to make this happen. Many institutions have introduced innovative measures to support students after access. However, Kift et al. (2010) point out that, though there are pockets of excellence at various institutions, the approach remains “piecemeal, fragmented and disjointed” (p.12). The first-year initiatives within institutions are rarely linked into one coordinated, integrated, coherent and sustainable whole. This detracts from the quality of the student experience. Therefore, Kift et al. (2010) cite a systemic and a coordinated institutional approach as a necessary and more holistic approach for any meaningful change in success rates. Bridging the gap and breaking down the silos between academic, administrative and support programmes is imperative in attempting to achieve effective and best practice and the elusive high retention and persistent rates institutions desire (McInnes, 2001). To this, Bovill et al. (2011) add that building relationships and connections between departments is also likely to have benefits for both students and staff.

The coherent and aligned institutional activities approach espoused by Kift et al. (2010) is to ensure that all students, whatever their entering backgrounds, are able to learn and persist beyond the first year, and are provided with every opportunity to “access equitably the transformative effects of higher education” (p.9).

In the absence of institutional commitment to take first-year education and retention seriously, the success and future of First-Year Experience initiatives can be

very dismal (Tinto, 2012b). However, where institutional policy and commitment are matched by "seamless academic-professional staff cooperation and congruent practices, transition pedagogy [holistic, coherent, coordinated institutional approach to first-year education] can be successfully enacted" (Kift, et al., 2010, p.14).

Tillman (2002) remarks that successful institutions focus on the needs of their students, while Tinto (2012b), in a similar vein, suggests that support is a condition that promotes student success. Tinto (2015) is keen to point out that it is not to shift the responsibility away from the student, but if the institution does not understand that it has to provide a place where even the personal attributes of the student can flourish, recruiting the best students will not ensure a good pass rate and therefore successful students.

It is evident from the aforementioned discussion that there is a clear and strong connection and overlap between the curriculum, the classroom, academic staff interaction and student engagement, and that the integration of this combination of elements can act as a powerful agent of change in higher education.

3.6.1.8. Changing perspectives. Tinto (2015) makes the distinction between the road to completion as seen through the eyes of students versus that of current theory that tends to view retention through the lens of institutional action. He adds that these two perspectives are not the same. Students' interests are not the same as the institution's. While universities seek to retain students, students seek to persist. Seeing retention through the eyes of the student means that the question institutions should ask is "not how they should act to retain their students, but how they should act to lead more of their students to want to stay and complete their studies" (Tinto, 2015, p.7).

In summary, international studies on academic integration yield a number of significant themes or factors that influence academic integration. A review of South African studies on academic integration will now be presented.

3.6.2. South African studies. Most of the South African literature reviewed on academic and social integration revolves around the discourse on student dropout and retention rates. The academic and social integration of students into the higher education system does not dominate the dialogue. Several studies report that the dropout rate is the highest in the first year of study, and that this is cause for concern (Manik, 2014; Moodley & Singh, 2015; Ramrathan & Pillay, 2015; Sibanyoni & Pillay, 2014). According to a report by the Human Science Research Council, as many as 40% of students drop out of university in their first year of study (University World News, 2008).

Lewin and Mawoyo (2014) suggest that factors that affect retention and persistence are social factors, like education background, socio-economic status, race, gender and the social environment of learning, and academic factors, like issues of language and literacy, teaching and assessment practices, and curriculum structure.

As is the case for international higher education, school leavers in South Africa are still inadequately prepared for higher education. While most of the literature indicates a lower retention and success rate for Black and Coloured students, the Centre for Higher Education in South Africa 2013 report reveals that White students in higher education are also performing poorly, with 33 percent of them dropping out in their first year of study as a result of a lack of academic literacies (Sibanyoni & Pillay, 2014).

Similar to international studies, South African literature demonstrates that academic integration into post-secondary educational settings is important for student retention and persistence. It has been well documented that the level of integration of students into higher education has a major influence on both their commitment to their studies and on their study success (Bitzer, 2009). For example, Dhurup and Reddy (2013) recognise that social integration is a challenge to students starting university, but claim that there is an even greater focus on academic achievement and meeting deadlines in various forms of assessments. However, as many authors argue, successful social integration facilitates academic integration and successful social relations with peers and academic staff do lead to improved academic performance.

Furthermore, academic backlogs from a weak schooling system contribute to difficulties in both academic and social integration for affected students. Students from such backgrounds are at a decided disadvantage at higher education institutions since

many lack the academic and social capital to integrate successfully and subsequently succeed in their studies.

In this vein, Bitzer (2009) maintains that most students in South Africa arrive at universities with some or other backlog that requires academic support. He, therefore, suggests that encouragement and support from course lecturers and peers, appropriate student planning, and preparation are key factors in first-year students' academic progress early in their studies. He also recommends that a positive approach towards academic development is needed, whereby student support needs are identified, support measures are put in place and evaluating whether these are effective or not.

In a study by Manik (2015a), students reported that adjustment to the academic environment at university was a significant area in which they required support. Manik (2015a) states that this comes as no surprise since it has been argued internationally and locally that more students are entering university and that they are inadequately prepared for higher education studies. The subjects in Manik's study indicate that they require assistance with several areas of their academic integration: style of instruction, independent work, critical academic and administrative skills, career choices and workload demands. Students reported finding it hard to adjust to the new style of instruction, and to large classes with minimum student interaction in which they mostly become dis-engaged. These results demonstrate clearly that greater lecturer-student engagement is important for student success (though engagement with the curriculum is equally important).

As far as independent work is required, Manik (2015a) points to the result of curricula innovations in post-apartheid South African schooling where group work has become characteristic of outcomes-based education. Students in her study allude to university being very different to school, and to the shock of being at university and not coping with the workload and time pressures. Other issues that hinder academic integration are lack of support with several issues: registration, use of computers (some have no prior experience in this), selection of modules, setting up Moodle, use of e-mail, continuous career support, continuous counselling, personal and academic support.

Whether a student is academically fit for higher education is considered another important element in the student retention debate, namely, does the student have the ability to succeed in higher education? Linked to this is the discourse on career or

course choice, conveyed by Viljoen and Deacon (2013). Academic fitness is associated with higher retention rates while non-completion could be the result of a mismatch between the student's social and academic background, and career choice, with 21.6% of students reported dropping out of university in the first year because of wrong course decisions (Viljoen & Deacon, 2013). Unsuitable course choices can cause a lack of commitment to goals, a critical factor in Tinto's (1993) model, and is a major cause of dropout.

Moreover, Sibanyoni and Pillay (2014) emphasise that the inclusion of a discipline-specific academic development programme that encourages academic and social adjustment is important for student success. In addition, collaboration between students within professional disciplines and the use of technology-enhanced learning could facilitate student adjustment. Like international research, Sibanyoni and Pillay (2014) conclude that there is a great need to provide assistance to undergraduate students through well-structured programmes, effective pedagogic practice for teaching and learning, and holistic, student-centred support initiatives that will aid them in achieving university success.

The themes that emerge from the South African literature are similar to that of international literature. Some of the more dominant themes emanating from the South African research are as follows.

3.6.2.1. First year criticality. The adjustment of undergraduate students in their first year of study is said to be the key to university success (Sibanyoni & Pillay, 2014). To achieve adjustment, first-time entering higher education students are required to transition to new academic literacies. Academic literacies refer to the critical thinking, reading, writing, speaking, and listening skills learned within the academia. To gain entrance into the academic community students need to become familiar with the university discourse and fit into the required academic roles. For example, they need to observe university practices and interact with the lecturer and other students. First-year students are expected to master the literacies required in the higher education discourse and hence be equipped with different cognitive abilities in order to negotiate power relations, authority and identities in the higher education environment. Negotiating power relations is an important skill especially for students from disadvantaged backgrounds, since the literature is clear on the value of academic student-staff relations for academic success.

3.6.2.2. Student deficit discourse versus institutional support. Manik (2015b) argues that the narrative of "unprepared students" has shifted to "underprepared students" to "underprepared institutions" (p.231). Improving student success therefore also depends, to a large extent, on the attitude of the institution and the efforts it employs. Likewise, like Tinto (2015), Muller (2013), is keen to point out that it is not to shift the responsibility away from the student, but if the institution does not understand that it has to provide a place where even the personal attributes of the student can flourish, recruiting the best students will not ensure a good pass rate and therefore successful students.

Manik (2015a) is of the opinion that a satisfied student in higher education will be a student who persists and achieves success unless there are outside external factors (not within the scope of the institution) that prove to be overwhelmingly powerful. This raises two important points: firstly, this view is in line with Tinto's later modification of his theory indicating a move away from the student-deficit discourse, to the acknowledgement that the institution needs to gain introspection into its own deficits that contribute to student withdrawal; and, secondly, it raises the question, 'What makes a student "satisfied?' Manik (2015a) answers this question by saying that when students feel that their needs are not being met, it will lead to dissatisfaction with the institution. It is, therefore, in the institution's best interest to discover how best to serve its students.

Manik (2015a) further reports that Billson and Brooks-Terry's student retention model is underpinned by the construct of institutional support. The model states that combining student engagement and university support structures will lead to reduced student departure.

Interestingly, in the access-success debate, Morrow (2009) uses the term *epistemological access,* which concerns learning how to become a successful participant in academic practice. He claims that the student is an active agent in his or her own epistemological access and should actively participate in the educational experience, which should be life-changing. There are many factors that might help a student become the successful participant that Morrow mentions: the students should possess certain personal attributes, enough resources (finances, books and facilities) and needs to be in the company of other serious students who are actively engaged in the learning process (Morrow, 2009). However, positive institutional conditions such

as good facilities and resources, and the sympathetic support of good academic staff, are important as well. Morrow (2009) emphasises, though, that the institution can only at best facilitate, and never guarantee, epistemological access, and that success is also dependent on what the student does.

Muller (2013), however, argues that the institution-related factors carry greater weight, not only in terms of directly influencing retention, but also indirectly in enhancing the entire student experience. Students are more likely to succeed in their learning when they find themselves in settings that are committed to their success, have high expectations of them, provide academic and social support, provide timely feedback, and actively involve them, especially with other students.

On the other hand, researchers like Sibanyoni and Pillay (2014), are of the opinion that a more equal focus on both the responsibility of the student and the institution will reveal that the problem does not merely lie with students, who lack the skills, conceptual knowledge or the language proficiency necessary to succeed in higher education. It also lies within the structures and communities within the institution obligated to help these students. Similarly, Boughey (2000) cautions that higher education needs to guard against the student deficit discourse as the dominant way of thinking, as this type of thinking could be regarded and "common sense" and will prevent "a critical examination and interrogation of the schooling and education system" (p.5).

In summary, it is clear that there is a move away from the student-deficit discourse, and that the institution should take greater responsibility for student success; it does not, however, diminish the role of the student in academic success. It is clear, therefore, that institutional factors and student factors are inseparable for student academic integration and success.

3.6.2.3. Classroom centrality. Like international research (Kift, et al., 2010; Tinto, 2012a), South African studies (Manik, 2015a; Sibanyoni & Pillay, 2014) demonstrate that certain institutional environments can influence students' success. While students' efforts and learning are the keys to their success, institutions have the capacity to generate effort, and in turn, impact on student learning and success. In this regard, they view the classroom as the foundation for lecturer-student meeting and engagement where support is offered and student involvement is encouraged (Manik,

2015a; Sibanyoni & Pillay, 2014). The classroom is, therefore, the epicentre of lecturer-student engagement

In the light of the aforementioned findings, students in Manik's (2015a) study report that lecturers' engagements with them sometimes constitutes aggression that is not invitational to addressing their concerns. In this regard, it is important to emphasise the importance of teaching being inviting in order to encourage student engagement, and hence, student success.

In a similar vein, Sibanyoni and Pillay (2014) demonstrate that teaching and learning practices in higher education contribute to students' academic adjustment process. Students in this study perceive teaching practices at university to be challenging, and unlike the practices at school. They experience university teaching practices as a hindrance to their positive academic adjustment. Sibanyoni and Pillay (2014) also found that a combination of collaboration and active participation skills were found to be associated with positive academic adjustment.

3.6.2.4. First-generation students. Students who are the first in the family to attend university lack the experience and knowledge of the context and, reportedly, have a greater challenge in adjusting successfully to higher education. In Manik's (2014) study, students report the distress of not knowing what university entails and fear about the workload and time management. Likewise, Muller (2013) agrees that it is clear that first-generation students as a group have a more difficult transition from high school to higher education compared to peers who are second- or third-generation students. Not only are these students confronted by all the anxieties and difficulties of any higher education student, but their experiences also involve considerable cultural, as well as social and academic transitions (Muller, 2013).

It becomes clear from all the above arguments that adjusting academically to higher education is complex and a multitude of factors need to be considered "beyond just study skills and language to include identity, race, gender, academic socialisation, grammatical competencies, enculturation to discipline-specific discourses and types of pedagogy and academic literacies" (Sibanyoni & Pillay, 2014, p.98).

In summary, several factors influence academic integration, which in turn influences student retention and persistence. The literature review of social integration will now be presented.

3.7. Previous Research: Social Integration

A review of past literature of social integration will now be explored, starting with international studies, and followed by South African studies.

3.7.1. International studies.

3.7.1. International studies. By and large, current research shows that institutions and the social networks of students have a significant influence on how first-year students adjust to higher education (Rienties, et al., 2012; Baker, 2012; Wilcox, et al., 2005). Baker (2012) found that students generally feel considerable anxiety in their first weeks at university, and hence claims that social integration is critical to first-year students' adjustment to university. Research has shown that the development of social networks in the first weeks of university life can underpin successful academic transition.

Positive peer pressure is a factor that can promote student retention. Tillman (2002) explains that peers can encourage one another when thoughts of dropping out arise. He cautions that educators should be careful not to minimise the importance of "good old-fashioned friendships" (p.9). Furthermore, friendship ties with students who have strong academic orientations may mediate the strain between the demands of the academic system and the social system. Conversely, the reverse may be true if the friendship ties are with persons who themselves are underachievers.

Likewise, Severiens and Schmidt (2009) agree that students who have many friends at university feel at home and enjoy going to university and, therefore, have a greater chance of study completion. Those who feel at home take part in extracurricular activities, and who feel connected with fellow students and lecturers, are more inclined to persist in their studies. Without social integration it is more difficult to persist, and ultimately, to graduate.

The availability of a social network of supportive individuals, and specifically, a feeling of belonging to a peer group and the institution, are important factors in students' persistence and quality of university experience (Hixenbaugh, et al., 2012). Therefore, students who work long hours in part-time or full-time jobs are unable to form friendships and sustain a social life with their peers, a factor regarded as helpful for persistence.

In support of previous research, Rienties et al. (2012) maintain that students who drop out often state that their social networks provide insufficient support. This is especially true for minority students, since having a sufficient number of friends from

the same culture as well as from the host culture (as in the case of foreign students or students from a minority culture in an institution where the dominant culture is different), can influence social and academic integration.

Social integration affects persistence indirectly through subsequent institutional commitment. Contact with students, though, is not related to class motivation, whereas contact with lecturers positively predicts motivation (Torenbeek, Jansen & Hofman, 2010). This suggests that students who have more contact with lecturers show better class attendance.

As was shown to be the case for academic integration, student engagement can promote social integration, and this engagement can be enhanced by creating a learning environment that encourages peer collaboration and "in which students participate actively and develop a sense of belonging" (Krause, 2006, p.7). Active versus passive learning environments foster social and academic integration and hence, positive learning outcomes (Severiens & Schmidt, 2009). In their study of a problem-based learning programme, Severiens and Schmidt (2009) found that lecturers in this type of environment make an effort to know their students, take them seriously and "invite them into the profession" (Severiens & Schmidt, 2009, p.67). Small groups of students meet several times per week in this programme; the results of this study demonstrate that formal social integration affects study progress, and is in line with many studies that have shown that social integration is an important predictor of study success.

Also closely connected to engagement and the concept of the classroom as central to social integration, Baker (2012) asserts that curriculum design should enhance interactive and social experiences for students by providing them with a wide range of opportunities to "form alliances with other students" (Wilcox, et al., 2005, p.720). This is similar to the value of classroom engagement for academic integration. If the academic transition is scaffolded in a way that provides students with a sense of belonging to the learning community, then social transition is supported (Krause, 2006). Tinto (1993) explains, though, that in the case of positive friendship ties, academic and social influences may merge, providing opportunities for both social interaction and mutual assistance.

Similarly, Baker (2012) also emphasises that a positive first-year experience is seen as central to student retention and as a result, universities are attempting to improve students' academic transition by focusing on first-year students' social

transition and the effectiveness of student support services. Because of the lack of significant improvement in retention rates, Baker (2012) suggests that university staff need to find new ways to enable students to "gain meaningful membership of the academic and social worlds of the university" as it is believed that successful integration in both spheres reduces the likelihood of student withdrawal (Wilcox, et al., 2005, p.708).

As was suggested for successful academic integration, lecturers are encouraged to adopt innovative learning and teaching methods that will support social transition in students' first year. Baker (2012) found that one such initiative, the implementation of karaoke, a form of popular music-making, as an icebreaker in the first lecture of an undergraduate class, helps to foster the development of student-student and student-lecturer relationships, an important factor for social transition. Baker (2012) puts forth karaoke as a social integration strategy to transition to university, especially in view of larger class sizes, which accompanies the shift to mass education. Large cohort courses have the effect of diminishing the sense of connection between students and between students and lecturers, and this type of pedagogic experience can be significantly isolating. Reducing students' sense of isolation is a fundamental aspect of FYE initiatives.

Likewise, a student-centred approach is regarded as a significant contributor to integration since it promotes retention (Tinto, 2015). A student-centred approach is one that caters for students' diverse learning preferences and for students from diverse backgrounds. The approach encourages feelings of belonging in institutional culture which, in turn, advances student retention and success. It is the antithesis of a one-size-fits-all approach.

According to Hixenbaugh et al. (2012), students who were considering dropping out were characterised by, amongst others, lower estimations of social support, a lower sense of integration and a lower level of satisfaction with their course. Students who reported higher levels of social support also reported higher levels of integration into higher education and greater interaction with their peers and were more satisfied with their university experience. An important finding of their study (Hixenbaugh, et al., 2012) is that aspects of the first-year experience can be shown to have a significant relationship with degree outcome more than two years later. Some of the aspects are staff concern for students' development and students' feelings of commitment to the university and its goals. In the authors' words: "These findings suggest that

relationship issues are at the heart of a positive student experience" (Hixenbaugh, et al., 2012, p.298).

Moreover, Jessup-Anger (2011) raises the value of the first-year seminar to promote academic and social integration in the first year of study. The first-year seminar is a programme generally offered to first-year students across higher education institutions in the USA. It consists of a variety of workshops, which cover essential skills for higher education success, offers knowledge and provides opportunities for peer group and lecturer interaction. Findings by Keup and Barefoot (2005) demonstrate the positive outcomes of the first-year seminar on social integration.

While Tinto's (1993) model accepts that the more integrated students are, the less likely they are to drop out of higher education, not all studies on social integration and persistence confirm this. Some have found certain forms of engagement exert a negative influence on academic success. For example, Torenbeek et al. (2010) and Deil-Amen (2011) found negative consequences for an excess of social integration: frequent contact with peers have a damaging effect on success. The downside of too much social interaction may also hinder good study performance. The less students interact with peers, the more likely they are to attend class. Dropout may arise from excessive social interaction, like spending an excessive amount of time and energy on social activities, such as dating or partying. This may happen in the same way as it does from a lack of social interaction. Excessive socialising may lead to lower academic performance and, eventually, to academic dismissal. Voluntary withdrawal rarely occurs as a result of such excessive social interaction (Tinto, 1993).

In a similar vein, Mannan (2007) and Rienties et al. (2012) found, in contrast to Tinto's (1993, 2012b) model, a negative relationship between social adjustment and academic success. Students who are extensively involved in extracurricular activities may devote less time to academic activities, which eventually leads to lower academic performance. In contrast, students who are less involved in social and extracurricular interests may compensate for lower social integration with more academic interests and integration. This means that students who try to optimise their efforts to integrate academically have better learning outcomes, while it is not necessarily the case for students who optimise their efforts to integrate socially.

These results, therefore, only partly support previous research on the topic in which engagement is positively linked to student retention and success. However,

Torenbeek et al. (2010) found that the results are in line with a few other studies, for example, by Baker (2008), Pascarella and Terenzini (1991) and Pike (2003).

Conversely, interaction with academic staff results in greater student motivation, more time investment in academic learning, and hence, greater academic success. It has become evident, therefore, that only excessive and negative socialising has undesirable results for student success; positive socialising has affirmative and encouraging effects on student persistence and success.

In summary, international studies demonstrate that there are a significant number of factors that affect social integration, and that social integration plays a critical role in student retention, persistence and success.

A review of the South African studies on social integration will now be considered.

3.7.2. South African studies. Similar to international studies, a review of South African literature demonstrates the pivotal role played by a student's social integration into higher education in order to achieve success.

Several authors are of the opinion that social relations and socialising are significant sources of belonging for first-year students (Bass, 2011; Dhurup & Reddy, 2013; Manik, 2014; Moodley & Singh, 2015). Students need to acquire and forge positive social relations in order to adjust to the environment. In addition, integration with the diverse university population can be a daunting task for vulnerable first-year students. For example, Dhurup and Reddy (2013) comment that social integration is challenging because students have to reposition themselves in a larger and more impersonal disciplined structure of university, which involves interacting with peers from diverse geographical and ethnic backgrounds.

Many first-year students move from the secure environments of their homes, schools and communities to a completely new environment at university. The routines and habits that were established during previous phases of development are now "disrupted" (Dhurup & Reddy, 2013, p.382). New students have the challenge of establishing new networks and social relations after moving away from the security offered by those peer groups which were formed in their schooling years. Dhurup and Reddy (2013) mention that sport and recreational participation can have the advantage of buffering against social exclusion or social isolation, especially for

students from marginalised communities. Similarly, friendships and peer mentors have a direct influence on a student's decision to leave or stay.

Very importantly, Ramrathan and Pillay (2015) report that human interaction and relationships are fundamental to pedagogy. They found, for example, that the experiences of loneliness associated with being a foreigner hampers students' social integration and much of the literature on transition demonstrates that for students to make a successful transition into higher education, they need to develop a feeling of belonging and connection with new peer groups and the wider academic community. This sense of belonging is often mentioned in the literature as an important factor in order for students to fit in, and hence, integrate successfully, leading to persistence and success (Viljoen & Deacon, 2013). A well-integrated student will experience a sense of belonging, which increases persistence and retention. For students to be engaged (a construct used by Kuh, 2008), they need to feel accepted and affirmed, in other words, have a sense of belonging. Engagement, as mentioned elsewhere in this chapter, is a phenomenon that includes both academic as well as non-academic social aspects. Congruence between students and environment will result in greater satisfaction, lower levels of stress and increased levels of engagement.

Furthermore, social support was found to be one of the most important protective factors for students and a significant predictor of academic achievement (Viljoen & Deacon, 2013). If students perceive a sense of social support, they will experience an overall sense of well-being, which in turn will help them adapt more easily to student life. Social support can include support from peers, tutors and family can also be seen as successful predictor of engagement (Viljoen & Deacon, 2013). Positive relationships with peers, lecturing and other staff, and family and community support, are all types of social support, which are critical in helping a student acclimatise to university.

According to Sibanyoni and Pillay (2014), collaborative partnerships and social interactions influence the individual's cognitive development and this is done "through the internalisation of ideas encountered in the sociocultural realm" (p.105). This is similar to the findings of an international study by Deil-Amen (2011). Furthermore, Sibanyoni and Pillay (2014), argue that *scaffolded learning* is important within the collaborative partnership. Scaffolding refers to a variety of instructional techniques used to move students progressively toward stronger understanding and, ultimately, greater independence in the learning process. Scaffolding sees students being

supported and motivated to have control over their learning process. The students' confidence is developed by being assisted by a more knowledgeable other until they are able to take responsibility for their learning (Sibanyoni & Pillay, 2014).

Therefore, a nurturing and supportive environment is needed for first-year students to alleviate their anxiety and fear, especially of consulting lecturers to assist in their transition, and to develop the academic literacies required in higher education practices.

Similar to the findings on negative social interaction with peers in international literature, Manik (2014) reports that students' interactions with each other, if not positive on-campus, can influence and promote their departure. Likewise, Modipane (2011) reports that peer pressure can be a major challenge that contributes to the decline of students' academic performance. It has become clear, therefore, that positive peer relations have a positive effect on student retention, persistence and academic attainment, while negative peer relations and too much socialising can have a negative impact on student success.

In summary, it is evident that the literature review of South African studies on social integration indicates similar findings to that of international studies. In addition, it has also become clear that academic and social integration should happen as early as possible in the first year of study to ensure optimal student retention and persistence.

3.8. Concluding Remarks

In conclusion, both international and national literature demonstrates that there are several significant factors that influence academic and social integration. The literature further illustrates the overarching positive effects of both academic and social integration on student retention, persistence and success, albeit through its influence on students' commitment to their goal attainment, as well as to the institution in which they are enrolled. It is also clear that academic and social integration have a mediating influence on one another where one facilitates the success of the other.

However, despite this strong indication that academic and social integration have a significant influence on student retention and persistence, concern around student success rates persists, leaving a gap for further research. Given the continued struggle, nationally and internationally, to improve student success, it has become critical to investigate factors that contribute towards this success, and to design and

implement interventions to do so. What is required is a clearer picture of *how* these factors influence academic and social integration and *how* they affect student success.

Strategies currently in place are the availability of greater financial aid, career and general student counselling, workshops to improve time management and study skills, first-year orientation programmes, supplemental instruction, tutorials, residence mentorship programmes, and so on. Nevertheless, despite these various intervention strategies, students still seem to drop out in large numbers, especially during the first year.

Past research also clearly demonstrates that the first year is the most critical year to student success (Crawford Sorey & Harris Duggan, 2008; Rhodes & Nevill, 2004; Sibanyoni & Pillay, 2014). It has become clear, therefore, that it is in the first year that the failure rate is the greatest, and therefore it is appropriate to investigate academic and social integration in the first year.

The next chapter outlines the methodology employed for this study.

Chapter 4

Problem Formulation and Research Method

4.1. Overview of Chapter

This chapter outlines the methodology of systematic review employed for the study. A contextual overview for the study is provided, including a description of the research problem. This is followed by an outline of the aims and objectives of the study. Tinto's theory is put forth as the theoretical framework particularly with regard to its potential for guiding interventions for successful integration into higher education. The advantages of the research design are highlighted and the methodological processes employed by the reviewer are explicitly stated. Ethical considerations and issues of validity and reliability are given due consideration.

4.2. Problem Formulation

As indicated in the conclusion of the previous chapter, notwithstanding a clear demonstration in past research that academic and social integration have a positive influence on student success, both national and international pass rates remain dismal (Crawford Sorey & Harris Duggan, 2008; Fowler & Zimitat, 2008; Rhodes & Nevill, 2004; Sibanyoni & Pillay, 2014). These studies have also illustrated that dropout and lack of academic progress is most likely to occur in the first year of study.

Despite the vast body of research on the academic and social integration of first-year students into higher education, as indicated earlier in this study, student retention and success rates have not improved. Regardless of various interventions, success rates are gloomy. A literature search reveals evidence of only one other systematic review on the topic of academic and social integration (Pan, 2010). The study is inaccessible to this researcher, as it is an international dissertation.

This present study will, therefore, attempt to address the gap by employing a systematic review methodology, thereby synthesising the literature on the topic in the hope of strengthening research in this field, which will hopefully and ultimately contribute to improved interventions to enhance student retention, persistence and success.

4.3. Research Aim and Objectives

Based on the above problem statement, the primary aim of this study was to investigate the academic and social integration of first-year students into the higher education system.

The specific objectives of this research study were:

- to establish which factors contribute to the academic integration of first-year higher education students.
- to determine the outcomes of academic integration for first-year students at higher education institutions.
- to establish which factors contribute to the social integration of first-year higher education students.
- to determine the outcomes of social integration for first-year students at higher education institutions.

The study was undertaken to gain an in-depth and comprehensive understanding of how integration into the higher education system influences student success and ultimately to inform practice and policy to enhance first-year success. In doing so, this study hoped to answer the following research question: What are the factors contributing to, and outcomes, of academic and social integration of first-year students into the higher education system?

4.4. Research Design and Methodology

This section presents the research design employed for this study and also describes the methodological processes to be used in conducting the study.

4.4.1. Research approach. The methodology employed for this study was a systematic review.

A systematic review is a specialised type of literature review that summarises research literature related to a single question. It uses an objective and transparent approach for research synthesis, with the aim of minimising bias. A systematic review is an attempt to sum up the best available research on a specific question. Chalmers et al (2002) define a systematic review as the application of strategies that limit the bias in the appraisal and synthesis of all relevant studies on a specific topic. It involves identifying, selecting, appraising and synthesising of all quality research relevant to

the research question and makes use of rigorous research methodology (Bettany-Saltikov, 2010).

Within the context of a systematic review, individual studies that contribute to the review are called primary studies; the systematic review itself, is referred to as a secondary study (Kitchenham, 2004).

According to the Cochrane Handbook (cited in Higgins & Green, 2011), the key characteristics of a systematic review are that it contains:

a) A clearly stated set of objectives with pre-defined eligibility criteria for studies;
b) An explicit, replicable methodology;
c) A systematic search that attempts to identify all studies that would meet the criteria;
d) An assessment of the validity of the findings of the included studies and
e) A systematic presentation and synthesis of the characteristics and findings of the included studies.

Systematic reviews may examine quantitative or qualitative evidence; when the two types of evidence are examined within one review, it is called a mixed method or comprehensive systematic review. A systematic review of quantitative evidence employs the process of meta-analysis, answering questions of effectiveness, feasibility, and appropriateness; it provides a more precise calculation than could be achieved by any of the individual, contributing studies. A systematic review of qualitative evidence employs the process of meta-synthesis, answering questions of meaningfulness, feasibility, and appropriateness; it provides an analysis of a number of independent qualitative research studies, combining the findings of these individual studies (Aromataris, 2012). A comprehensive or mixed method systematic review combines both quantitative and qualitative findings and addresses multiple forms of evidence (Aromataris, 2012; Hammerstrom, 2010).

This study used quantitative, qualitative and mixed method studies. The research paradigm on which this systematic review approach was based was consequently both the positivist and constructivist (interpretative) paradigms. The positivist philosophy argues that there is only one objective reality; quantitative methodologies are rooted in the positivist paradigm. The constructivist or interpretive philosophy supports the view that there are many truths and multiple realities (De Vos, et al., 2011). The qualitative methodology shares its foundation in this paradigm.

At this stage, it is prudent to provide the history of systematic reviews. This history is investigated below.

4.4.2. History of systematic reviews. There is a long history behind the use of systematic reviews as a methodology or research synthesis, dating back to the early 1900s when it was first used in medical research. In the 1950's social science researchers explored approaches to undertaking meta-analysis, particularly in the education and psychology fields (Torgerson, 2003). Critical appraisal and synthesis of research findings in a systematic manner emerged in its first formal guise in 1975 under the term *meta-analysis*. The phrase was coined by Glass who conducted syntheses in the areas of psychotherapy (Glass & Smith, 1979).

Although these early syntheses were conducted in broader areas of public policy and social interventions, initially, systematic research synthesis was applied to medicine and health. Archie Cochrane's ground-breaking work urged health practitioners to practise evidence-based medicine, later defined by Professor David Sackett as "the conscientious, explicit, judicious use of current best evidence in making decisions about the care of individual patients" (Sackett, Rosenberg, Gray, Haynes & Richardson,1996, p.71).

In 2003, the Cochrane Collaboration was established with the aim of encouraging and publishing systematic reviews of health care interventions (The Cochrane Library, 2012). Archie Cochrane was critical of the medical field for not organising its research evidence in a systematic and reliable way. Research studies in the medical field could typically find contradictory results for the same medical intervention. This is where the value of a systematic review is especially helpful since it assists medical practitioners to make an informed decision about the most suitable treatment. The international Cochrane Collaboration is based on two principles: the need for unbiased comparisons of interventions and the importance of collating evidence from different studies to obtain reliable information (MacDonell, Shepperd, Kitchenham, & Mendes, 2010). While the Cochrane Collaboration centres its efforts on the concept of evidence-based medicine, initiatives like the Campbell Collaboration focus instead on the social and behavioural disciplines, including education and social welfare. The modern systematic review has its roots in initiatives like the Cochrane and Campbell Collaboration (MacDonell, et al., 2010).

It is interesting to note that the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI Centre) was established in 1992 at the Social Science Research Unit, Institute of Education, University of London (Glass & Smith, 1979). This project aimed to develop a database of well-designed evaluations of interventions in the fields of education and social welfare. The need for a more strategic approach to the accumulation and use of educational research was argued for by David Hargreaves at the same institute.

The responsibility of the EPPI Centre was further broadened in 2000 by gaining support from the British Department for Education and Skills to support groups wishing to undertake reviews in the field of education (Glass & Smith, 1979).

There are distinct differences between a traditional literature review and a systematic review. These will now be explored.

4.4.3. Differences between a traditional literature review and a systematic review. While a traditional literature review also collates existing research on a specific topic, it is more narrative in nature, and although very useful, it often represents a biased sample of literature on the subject and often lacks the same level of rigour to reviewing research. Often studies are cited because they support the researcher's argument and not because they are reliable. The more traditional literature review summarises evidence non-systematically and therefore lends itself to bias (Wieseler & McGuaran, 2010). In contrast, systematic reviews attempt to bring the same level of rigour to reviewing research evidence as should be used in producing that evidence in the first place (Hemmingway & Brereton, 2009). According to Aromataris (2012, p.8), a systematic review is an attempt to "identify, appraise and synthesise all empirical evidence that meets pre-specified eligibility criteria to answer a given research question."

According to Higgins and Green (2011) the key characteristics of a systematic review are that it contains:

a) A clearly stated set of objectives with pre-defined eligibility criteria for studies;
b) An explicit, replicable methodology;
c) A systematic search that attempts to identify all studies that would meet the criteria;
d) An assessment of the validity of the findings of the included studies, and

e) A systematic presentation and synthesis of the characteristics and findings of the included studies.

The differences between a traditional literature review and a systematic review are further described in Table 1**.**

Table 1

Differences between a Systematic Review and a Traditional Literature Review

Criteria	**Systematic Review**	**Literature Review**
Question	Focus on a single question	Not necessarily focused on a single question, but may describe an overview
Protocol	A peer review protocol or plan is included	No protocol is included
Background	Provides summaries of the available literature on the topic	
Objectives	Clear objectives identified	Objectives may or may not be identified
Inclusion/ Exclusion criteria	Criteria are stated before the review is conducted	Criteria are not specified
Search Strategy	Comprehensive search conducted in a systematic way	Strategy not explicitly stated
Selecting articles	Must be clear and explicit	Not described
Evaluating articles	Comprehensive evaluation of study quality	Evaluation of study quality not necessarily included
Extracting relevant information	Clear and specific	Not clear or explicit
Results and data synthesis	Clear summaries of studies based on high quality evidence	Summary based on studies where the quality of articles may not be specific
Discussion	Written by an expert or group of experts with a detailed and well-grounded knowledge of issues	

Note. Reproduced from *Learning How to Understand a Systematic Review*, by J. Bettany-Saltikov, 2010, p.49.

The **rationale** for undertaking a systematic review has been well explored within the health and social sciences and is grounded in several premises, which are mentioned below.

- Firstly, with a substantial increase in the number of studies published on any given topic of research, systematic reviews are becoming popular in several disciplines such as health care, social sciences and education. The last decade alone has seen an explosion in the research field, making keeping up with primary research on a given topic almost impossible and somewhat overwhelming (Petticrew & Roberts, 2006). The number of studies relevant to a topic may run into hundreds or even thousands; sometimes giving unclear, confusing or contradictory results (Hemmingway & Brereton, 2009). Systematic reviews are therefore used to refine this unmanageable amount of information by separating unsound, redundant literature from the more salient, critical type of study that is worthy of reflection (Mulrow, 1994). It is regarded as a scientifically rigorous method for summarising the results of primary research and validating consistency amongst studies (Torgerson, 2003).
- Secondly, systematic reviews are used to identify, justify and refine hypotheses and are often used by researchers to keep abreast of primary literature on a topic (Mulrow, 1994). Systematic reviews are particularly useful in formulating guidelines and legislation on intervention and strategies (Armstrong & Waters, 2007; Mulrow, 1994). They are also relevant when there is uncertainty about the effectiveness or outcome of a policy and service (Petticrew & Roberts, 2006; Torgerson, 2003).
- Systematic reviews may also be undertaken for the purposes of summarising existing evidence (Petticrew & Roberts, 2006); identifying gaps in current research in order to recommend future research (Kitchenham, 2004); providing a framework or background with which to suggest new research activities (Kitchenham, 2004; Torgerson, 2003); and examining the extent to which evidence supports a hypothesis or social concern (Kitchenham, 2004; Mulrow, 1994).

Because there is such a vast body of research on the topic of this study, a systematic review would provide a succinct overview of the research conducted thus far. By far, most of the research conducted on this topic has been done in the USA. Very few studies have been conducted in South Africa. A systematic review of the

literature would provide higher education institutions in South Africa with a broad overview of the research in the field, and also thereby providing insight into the global trends in the area, and how South African institutions could benefit from this knowledge and its application.

Taking all of this into account, I concluded that conducting a systematic review with regard to the research question was most appropriate. The next section illustrates the advantages and disadvantages of a systematic review.

4.4.4. Advantages and disadvantages of a systematic review. One of the major advantages of a systematic review is that it provides information about a topic across a wide range of contexts and research designs (Kitchenham, 2004). A systematic review is also very useful in synthesising large quantities of information into a manageable format. It helps professionals stay abreast of developments in a particular field by condensing the best relevant research studies in one synthesised source and provides an overview of the research on a topic (Armstrong & Waters, 2007; Petticrew & Roberts, 2006; Torgerson, 2003). Moreover, systematic reviews are useful in identifying gaps in the research area. While systematic reviews are labour-intensive, they are also quicker and less costly than embarking on a new study. A well-done systematic review can increase the precision of a conclusion, assimilate a large amount of data, decrease the delay in knowledge translation, allow formal comparison of studies, and identify/reflect on heterogeneous results.

However, despite the scientific rigour attached to systematic reviews, this type of study has potential drawbacks. The time and effort required to conduct a systematic review could mean that it requires a fairly large budget. Some have suggested that researchers could be influenced to find results that suited their funders (Shuttleworth, 2009; Torgerson, 2003), which is contrary to the unbiased nature of systematic reviews. Another disadvantage is that some reviews are out of date before they are actually published, affecting the quality of the review, and therefore forcing researchers to update their research constantly, making it a very tedious and long drawn-out process. Some critics claim that, despite stringent methodological practices of this type of review, selection bias remains a challenge since a researcher may inherently be swayed to tell a story clouded by personal persuasions (Torgerson, 2003).

4.4.5. Validity and reliability. Methods for establishing credibility in systematic reviews have been extensively developed and debated: in quantitative evidence, the emphasis is on reducing bias and increasing validity, while in qualitative evidence the emphasis is on the rigour of the research design and transferability.

The validity and reliability of a systematic review needs to be established. The validity of a research study is an indication of how sound the research is (De Vos, et al. 2011). More specifically, validity applies to both the design and the methods of the research study. Validity in data collection means that the findings truly represent the phenomenon that the study is claiming to measure. Within the context of systematic reviews, validity refers to transparency with regard to how the data was generated, the accuracy and appropriateness of the methods and consideration of legal and ethical issues (Petticrew & Roberts, 2006). Validity consists of internal and external validity.

According to Torgerson (2003), the most important design criteria of a systematic review, relates to its internal validity. Internal validity refers to the extent to which the design and process is likely to prevent systematic error (Kitchenham, 2004) and methodological biases (Petticrew & Roberts, 2006). It also informs whether the results of the study can be attributed to the actual findings rather than to flaws in the design and process. These flaws increase the risk of, for example, selection bias in the case of systematic reviews. External validity refers to the extent to which the results of a study can be generalised to a broader population.

Reliability is the degree to which an assessment tool produces stable and consistent results, in other words, yielding the same or compatible results in different clinical experiments or statistical trials. One of the tenets of a systematic review is that it should be objective and repeatable (MacDonnel, et al., 2009). Standard practice for conducting a systematic review dictates that the researcher makes explicit the inclusion and exclusion criteria and provide sound reasons thereof. This transparency in method and process facilitates the replicability of this type of study (Petticrew & Roberts, 2006).

4.4.6. Data collection. The stages of systematic review are well established in health care, in social policy and in education. The process of developing a systematic review involves the careful and systematic collection, measurement and synthesis of data (Glasziou, Irwig, Bain & Colditz, 2001). These steps are also the steps taken to ensure the methodological soundness of the study. The steps are similar to any other

research undertaking. According to Glasziou et al. (2001), Pettricrew and Roberts (2006) and Torgerson (2003), the steps are as follows:

1. Formulate the review question and write up a protocol or plan to establish the theoretical, empirical and conceptual background to the review.
2. Determine the types of studies that need to be located in order to answer the question. This should include the inclusion and exclusion criteria.
3. Define the inclusion and exclusion criteria.
4. Locate the studies by carrying out a comprehensive literature search of relevant studies.
5. Select the relevant studies by screening the results of the search that meet the inclusion criteria.
6. Appraise the study quality of the included studies.
7. Extract the relevant data.
8. Analyse and synthesise the studies.
9. Present the results.
10. Interpret the results.

Each of the steps listed above are discussed in greater detail below.

Information retrieval is an essential component of the systematic review process, analogous to the data collection phase of a primary research study, and requires the expertise of an information specialist or a librarian. A thorough and unbiased compilation of all potentially relevant studies is one of the key characteristics of a systematic review and if the literature located is unrepresentative of the population of completed studies, the remainder of the review process will be compromised (Hammerstrom, 2010).

Given the diverse nature of the research questions addressed in the social, behavioural and educational sciences, potentially relevant studies are likely to be widely distributed and unreliably categorised. While retrieval of information from the literature is a critical concern for any systematic reviewer, retrieval of information about complex social, behavioural and educational interventions is likely to be especially challenging (Hammerstrom, 2010).

4.4.6.1. Research question and protocol development. The first step of the systematic review was the formulation of the research question. A clear and well formulated research question is important and increases the efficiency of the review process and helps to maintain the focus of the study. Stating a clear research question before the literature search is conducted prevents unnecessary effort in identifying and retrieving relevant papers (Torgerson, 2003). It also reduces possible bias and prevents a reviewer from developing the research question to ensure that particular studies are included. Bettany-Saltikov (2010) reports that it is also important to think about how the chosen question relates to the research design of the studies to be included in the review.

Once the question was formulated, a search for articles that attempted to answer the research question was conducted. This systematic review was undertaken with the aim of answering the following research questions: Firstly, what are the factors contributing to the academic integration and what are the outcomes of the academic integration of first-year students into the higher education system; and, secondly, what are the factors contributing to the social integration and what are the outcomes of the social integration of first-year students into the higher education system?

The next step of the systematic review was the development of a research protocol or proposal. The objective of a review protocol was that the research question(s), the aims and methods of the review were considered in advance of identifying the relevant literature. The protocol should be an *a priori* statement of the aims and methods of the review. This allowed the reviewer to conduct the review with minimal bias and greater efficiency (Torgerson, 2003). It helped to focus and structure the review and enabled a third party to critically appraise the completed review in relation to the initial proposal. According to Egger, Smith, & Altman (2006), a detailed study protocol clearly stating the question to be addressed, the "subgroups of interest" (p.24), and the methods and criteria to be employed for identifying and selecting relevant studies and extracting and analysing information in advance, is very important to avoid bias which can be introduced to influence or slant undisclosed agendas. For example, studies that produce unexpected or undesired results may be excluded *post hoc* to the inclusion criteria. Reviewers cannot change the research question or protocol once they see the results of the study.

In summary, according to Bettany-Saltikov (2010) the protocol usually includes:

- An answerable review question.

- The background to the review (briefly).
- The objectives or purpose of the review.
- The inclusion and exclusion criteria for considering the studies in the review.
- The search strategy.
- Identification of how the articles for the review will be selected.
- Identification of how the quality of the articles will be assessed.
- Identification of how data will be extracted from the articles to answer the research question.

Bearing all of the above in mind, a research proposal was put forward at the onset of this systematic review in which the reviewer sketched in advance the required aspects of this study.

4.4.6.2. Determine the inclusion and exclusion criteria. The criteria for including papers in this systematic review were established *a priori* in order to reduce the possibility of bias and to avoid the situation where the criteria would be changed as the review progressed. In a high quality systematic review, the inclusion and exclusion criteria are rigorously and transparently reported**.**

The criteria used to select and appraise research articles were determined from the outset. Specifying the inclusion criteria *a priori* minimises the possibility of selection and reviewer bias (Torgerson, 2003). The criteria for selection of studies were as follows:

- Content – only studies that explored the academic and/or social integration of first-year undergraduate students into higher education were included in the review.
- Population – only studies pertaining to first-year undergraduate cohorts were included.
- Language – the reviewer of the study is proficient in English, hence only studies written in English were included in the review.
- Date – in order to capture the most recent and relevant information to ensure that the study is valid and applicable to new trends, only studies conducted between 2005 and 2015 were considered.
- Types of studies – based on the objectives of the study, a wide a base of sources was consulted, and both quantitative and qualitative studies were

included in the study. Studies in this field are often of both a quantitative and a qualitative nature. This study was therefore a comprehensive, mixed methods systematic review.

4.4.6.3. Locate the studies by carrying out a comprehensive literature search of relevant studies. The search strategy for the identification of the relevant studies was clearly delineated. The literature search for the purpose of this systematic review followed the guidelines mentioned above. Torgerson (2003) mentions that the three methods that are least liable for selection bias in a systematic review are searching of electronic databases, hand searching of key journals and searching bibliographies of previous systematic reviews. The reason provided is that these methods employ a systematic approach. However, Torgerson (2003) adds that the main thrust of the search should be in the electronic databases since this is the most efficient method of retrieval. This is mainly due to the “technological explosion” (p.34) in the last twenty years or so, which has made educational and other relevant electronic databases readily available, and which also allows for systematic search.

The search utilised the Nelson Mandela Metropolitan University Library Catalogue (NMMUCAT), which hosts a range of online databases. This catalogue shares the system with other libraries of the South East Academic Library System (SEALS), which is a consortium of higher education libraries in the Eastern Cape Province, South Africa. This was the database used to locate the primary studies to be consulted for this systematic review. The primary search engine employed was Ebscohost, with its wide variety of databases. The South African search engine used was Sabinet (SAe). The “related research” option was consulted on the databases.

For the sake of transparency and replicability, a detailed record was kept of databases used, the search strategy employed, including keywords and variations in keywords, together with resulting research output. The search words used for the study were “factors contributing to academic integration,” “factors contributing to social integration,” “outcomes of academic integration,” “outcomes of social integration,” variations of “factors,” variations of “outcomes,” “first year” and variations thereof, “higher education,” “university,” “college,” and variations thereof, “student retention,” “student persistence” and “student success,” including the use of the wildcard character (*). During the first phase of screening, potentially relevant studies were identified from their titles and abstracts, and imported into a reference management

software package (EndNote Desktop, Version 7) in order to establish and maintain a database of references.

The potentially relevant articles were read and identified as relevant or not. The inclusion/exclusion criteria were applied to the selection of studies. The decision-making process was carefully recorded to limit bias and for the sake of replicability. The set of criteria was piloted on a few studies first before incorporated into the study and applied to the rest of the review.

4.4.6.4. Select the relevant studies by screening the results of the search that meet the inclusion criteria. This step is also referred to as screening the results of the search. After the search strategy had been established, and the potentially relevant titles and abstracts identified, the next step was to "filter out the irrelevant papers and screen in possibly relevant articles" (Torgerson, 2003, p.40). A database of references was kept for every step of the review, which can be duplicated by a third party if required. Potentially relevant studies were identified from titles and abstracts (first stage screening). Irrelevant studies were filtered out. The relevant studies were then read and identified as either being relevant or irrelevant (second stage screening). The inclusion or exclusion of studies was based on a set of criteria defined before embarking on the study. This decision-making process was carefully recorded so as to limit bias, facilitate replicability of the study and inform the reader (Appendix B). The set of criteria was piloted on a few studies first, before being incorporated into the study and applied to the rest of the study.

4.4.6.5. Appraise the study quality of the included studies. The relevant studies may vary vastly in quality. A critical appraisal of each of the identified potentially relevant studies was therefore needed. Critical appraisal is the process of assessing the methodological soundness of a study. This step aims to determine whether the study is able to answer the research question. It also guides the reviewer's attention to the key aspects of the study such as design, methods, key measures and variables (Petticrew & Roberts, 2006). By assessing the methodological quality of each primary study, the reviewer was able to give greater credence to the findings of more methodologically sound studies.

Glasziou et al. (2001) report that to avoid a selection that is biased by preconceived ideas, it is important to use a systematic and standardised approach to

appraise the studies critically. The data in this study were critically appraised using a data appraisal sheet to ensure that each study was subjected to the same criteria in an unbiased and transparent manner. The data appraisal/ critical appraisal sheet can be found in Appendix C. The components of this appraisal tool were based on guidelines set out by Letts, Wilkins, Law, Stewart, Bosch and Westmoreland (2007). These guidelines were as follows:

1. Full citation according to APA standards: this was to ensure that other researchers could easily retrieve the article.
2. Purpose of the study: this provided a useful summary of the study and helped determine whether the topic was relevant to the review. For the purpose of this study, these questions were considered: did the article provide answers to the research question, that is, the factors contributing to academic and social integration, and the outcomes of successful/unsuccessful academic and social integration.
3. Literature: this helped to identify gaps in current knowledge and research about the topic.
4. Study design: this assisted in judging the appropriateness of the design, sampling, data collection methods and analyses.
5. Sampling: this assisted with determining if the sample size was adequate and transparent.
6. Data collection: to determine whether the data collection methods were congruent with the research design and that the procedure was clear and rigorous.
7. Data analyses: to assess whether the methods and reasoning employed were appropriate and rigorous.
8. Credibility, transferability, dependability, and confirmability: to assess trustworthiness of the study.
9. Conclusions and implications of the study: to assess for soundness and contribution.

4.4.7. Data extraction. Once the included studies had been critically appraised, the next step was to extract the relevant data from the selected studies. These selected studies made up the final sample of the review. The relevant data was now extracted from the final sample. The tables in Appendix D were used to extract the data and to record answers to the specific research questions. Data extraction forms were carefully designed to include all relevant data. The data answered the research question, namely, (a) what are the factors contributing to academic integration? (b) what are the outcomes of academic integration? (c) what are the factors contributing to social integration? (d) what are the outcomes of social integration?

Since this study considered only published research within the public domain, no ethical permission for conducting the systematic review was required.

Every effort was made to maintain the integrity of the study through careful consideration of the issues surrounding reliability and validity within the study.

4.4.8. Data synthesis and integration. According to the Centre for Research and Dissemination (2009), synthesis involves the collation, combination and summary of the findings of individual studies included in the systematic review, as well as drawing results together. Synthesis should consider the strength of evidence, explore whether any observed effects are consistent across studies, and investigate possible reasons for any inconsistencies. This enables reliable conclusions to be drawn from the assembled body of evidence.

Systematic reviews in the social sciences often collate a range of evidence comprising of various designs in a process similar to triangulation. Petticrew and Roberts (2006) suggest that in the description of the study, the population, methodology and results should be made transparent. The systematic organisation of the data helped the reviewer identify themes across studies, explore similarities and differences among primary studies and clarified which data was extracted from which primary study. The focus of this systematic review was to identify the contributing factors and outcomes of first-year academic and social integration respectively. Hence, the primary studies selected for the review highlight these factors, and data from each study was systematically organised into themes around these concepts. Emerging themes were identified in individual studies and evidence for each identified factor was sought across studies. The mapped emerging themes, which will be discussed in the next chapter, can be found in Appendix E.

The next step, the narrative data synthesis involved rigorously scrutinising emerging patterns for individual studies and exploring the relationships between studies, respectively (Centre for Research and Dissemination, 2009; Petticrew & Roberts, 2006).

The data obtained from the process described above were synthesised and written up. The results will be disseminated to relevant stakeholders.

4.5. Dissemination of Findings

Reporting on the findings of a systematic review is an in integral part of the process (Centre for Research and Dissemination, 2009). The themes, findings and potential biases were reported, discussed and collated in summarising maps (Appendix E) and are presented in Chapter 5 (Results and Discussion) of this study.

In addition to synthesising the data captured through the review, the findings were used to establish conclusions and recommendations with regard to the value of academic and social integration for student retention, persistence and success. These are presented in Chapter 6 (Conclusion and Recommendations) of this dissertation.

4.6. Concluding Remarks

This chapter provided a comprehensive overview of the research methodology employed for this study. The background and rationale for conducting this systematic review was established in the context of the research aims. The methodology employed by the reviewer was clearly set out and reliability and validity issues given due consideration.

The findings of this systematic review will be discussed in the following chapter.

Chapter 5

Results and Discussion

5.1. Overview of Chapter

This chapter presents the results of the systematic review around the primary aims of the study. Firstly, the aims were to explore the factors contributing to academic integration, and the outcomes of academic integration. Secondly, the aims were to investigate the factors contributing to social integration, and the outcomes of social integration. The aims were set in relation to first-year students in higher education. Data from primary studies were systematically reviewed, with findings organised into themes around the contributing factors and outcomes of academic integration and social integration, respectively. A narrative synthesis of the findings is presented.

5.2. Search Output

Before the search for relevant studies could begin, the most pertinent search words had to be identified. With the help of an experienced librarian at the South Campus library at Nelson Mandela Metropolitan University (NMMU), and through pilot trials, the most suitable search words were identified in order to yield focused answers to the research questions. These search words appear in Table 2, together with the search results for each stage of the review. An experienced librarian with expert knowledge of databases was further consulted for overall guidance with the choice of databases for the search strategy. It was decided that the most appropriate sources of information for this study would be the search engine Ebscohost, with its vast selection of databases, to cover international studies, and SAe Publications, to cover South African studies in relation to the research questions.

The databases selected within Ebscohost were: Academic Premier, E-Journals, ERIC, Humanities International Complete, MasterFILE Complete, PyscINFO and Teacher Reference. The South African database used was SAe Publications (where journal articles are stored by Sabinet). The search results are presented in Table 2.

Table 2

Results of Search Strategy

Standardised Search Strategy: Ebscohost			
	Stage 1	**Stage 2**	**Stage 3**
Search String	**Initial Search Output**	**Relevant Articles Selected**	**New Articles saved**
"academic integration" AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university 04/07/2016	82	80	66
"social integration" AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	189	150	106
"academic integration" AND factor* OR contrib* OR influenc* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	53	45	34
"social integration" AND factor* OR contribut* OR influenc* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	115	97	43
"academic integration" AND consequence* OR result OR effect* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	56	38	29
"social integration" AND consequence* OR result OR effect* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	143	75	41
success* OR graduat* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	111	78	61
retention AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	100	93	67
persist* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	113	109	79
TOTAL NUMBER OF STUDIES	**962**	**765**	**526**

Standardised Search Strategy: SAe Publication			
	Stage 1	**Stage 2**	**Stage 3**
Search String	**Initial Search Output**	**Relevant Articles Selected**	**New Articles saved**
"academic integration" AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	29	12	7
"social integration" AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	19	4	2
"academic integration" AND factor* OR contrib* OR influenc* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	19	7	4
"social integration" AND factor* OR contribut* OR influenc* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	12	5	2
"academic integration" AND consequence* OR result OR effect* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	26	10	7
"social integration" AND consequence* OR result OR effect* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	14	1	1
success* OR graduat* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	60	12	4
retention AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	7	1	1
persist* AND "first year*" OR freshman OR freshmen AND "higher education" OR university OR university	4	1	1
TOTAL NUMBER OF STUDIES	**190**	**53**	**29**

A description of the stages of the review outlined in Figure 3, is presented below.

- Stage 1 involved the initial search, while Stages 2 and 3 comprised the early stages of the review. The action required and the results yielded for each stage, are indicated.
- In Stage 3, after reading the abstracts in detail, a total of 555 studies were selected. However, after the automatic discarding of the duplicates, the process was left with 196 studies, to be considered for the Inclusion/Exclusion stage.
- The reference list for the Inclusion/Exclusion studies can be found in Appendix A. The Inclusion/Exclusion Table can be found in Appendix B. The Inclusion/Exclusion Table shows which studies were included and which were excluded.
- Of the 196 studies selected for Inclusion/Exclusion, 47 were included for appraisal; 149 were excluded for various reasons. See Inclusion/Exclusion Table in Appendix B.
- For quality assessment, the included studies (n = 47) were then each critically appraised. Critical appraisal is the last step of sampling to determine the methodological quality and rigour for inclusion in the final sample from which the data will be extracted.

An independent reviewer with research expertise was consulted for the appraisal of studies where the reviewer was doubtful about the quality. Results from both reviewers were compared and a discussion was held to reach consensus in cases of disagreement on the quality of studies and on whether studies should be included or excluded for data extraction. The independent reviewer did not have any interest in the view of experts involved in the field. The disagreements and consensus are indicated in the affected studies. The independent reviewer's markings are indicated with a red cross in each block. Since the number of appraisals are too many to include in this document, the critical appraisal of only 6 of the 47 studies, are provided in Appendix C: 3 accepted studies, 2 doubtful studies which were discussed with the independent reviewer, and 1 of the 2 studies

not accepted. The critical appraisal for each of the remainder of the studies is available on request.

Two studies received negative appraisal (the reasons are provided in the appraisals), and were therefore excluded from the final sample.

- The studies that were positively appraised (n = 45) form the final sample for the review. The relevant data for the review (to answer the research questions) were extracted from each of the 45 studies in the final sample, and recorded in suitably devised templates. Since the data extraction from the 45 studies resulted in more than 200 pages of data, for convenience, only 5 samples of data extraction tables are provided in Appendix D. The data extraction for the remainder of the studies are available on request. Some sections of the data have been shaded for ease of use for the mapping of the themes, which is the next step in the process.
- It is worth noting that the final sample is made up of a wide diversity of local and international studies: United States of America (USA), United Kingdom (UK), Australia, The Netherlands, Italy, Portugal, Chile and South Africa. The eclectic assortment of studies from around the globe must certainly contribute to the strength of the review.
- Thematic analysis was used to identify major or recurrent themes in the studies. Therefore, the following stage was to map the themes from the data in the Data Extraction Tables. The themes were mapped in a separate template for each research objective of the study. Themes were added as the process flowed, hence the reader will see new themes appearing on subsequent pages of maps. The themes were given weight according to the number of studies in which they appeared. The Themes Maps can be found in Appendix E.
- Finally, after the themes had been mapped, the findings were written up and discussed.

Figure 3 represents the process described above.

Stage 1: Initial search: use search string

Result: Total n = 1152
Ebscohost: n = 962
SAe Publications: n = 190

Stage 2: Cursory screening: scan title and abstracts

Result: Total n = 818
Ebscohost: n = 765
SAe Publications: n = 53

Stage 3: Read abstracts

Result: Total n = 555
Ebscohost: n = 526
SAe Publications: n = 29
After duplicates discarded n = 196

Stage 4: Apply inclusion/exclusion criteria: Read full texts

Included: n = 47
Excluded: n = 149
Inclusion/Exclusion Table

Stage 5: Appraise study quality of included studies

Positive appraisal n = 45 (final sample)
Negative appraisal n = 2
Critical Appraisal Tables

Stage 6: Extract relevant data from final sample

Findings = answers to research questions
Data Extraction Tables

Stage 7: Map relevant themes from data extraction tables

Tables with Thematic Mapping

Stage 8: Analyse and Synthesise Results and Write-up

Results and Discussion Chapter

Figure 3. The Stages of the Systematic Review.

Now that the search process has been described, the findings and discussion of the study are presented.

5.3. Findings and Discussion

The findings of this study are discussed in terms of the extent to which the research objectives have been achieved and whether the research questions have been answered:

The specific objectives of this research study are:

- to establish which factors contribute to the academic integration of first-year higher education students.
- to determine the outcomes of academic integration for first-year higher education institutions.
- to establish which factors contribute to the social integration of first-year higher education students.
- to determine the outcomes of social integration for higher education institutions.

The final sample in the systematic review yielded relatively consistent results with regard to emerging themes around the factors contributing to and outcomes of academic integration and social integration, respectively.

Even though academic and social integration will be discussed separately in the findings, they are in fact almost inextricable from each other. There is a distinct interplay between academic and social integration for student success – they do not exist in isolation of each other.

The themes functioned as both independent and interdependent factors that influenced the social and academic transition of students. Though a combination and orchestrated interaction of all of the themes frame and shape the experience of the first-year cohort, there are themes in this study that dominate first-year transition.

The findings are presented under thematic headings to answer the research questions. The themes are presented in order of weighting derived from the thematic analysis, starting with the most important. The weighting was scored in the following way: if a theme appeared in an article it was scored once for that article regardless of the number of times it was mentioned in the article. For example, interaction with

academic staff as a factor for academic integration scored 17. This means that this theme appeared in 17 articles in the final sample. Factors or themes with little weighting were considered too insignificant for discussion. It is evident from an analysis of the data that the research aims have been met and the research questions answered.

The emerging themes for academic integration are presented below.

5.3.1. Academic integration. Academic integration, as outlined in Chapter 3 of this study, is described as the development of a "strong affiliation with the academic environment both inside and outside of class" (Rhodes & Nevill, 2004, p.97), and includes academic performance, self-perceptions, academic progress and the belief that lecturing staff are personally committed to teaching and supporting students (Rhodes & Nevill, 2004). Towards a further description, Deil-Amen (2011) states that academic integration is generally measured using variables like academic performance, students' sense of their intellectual or academic development, students' perception of academic staff concern, frequency of social contact or conversations with academic staff about academic or career matters outside of class, participation in out-of-class study groups, time spent on homework and enrolment in first-year seminars.

Following the above description of academic integration, the factors contributing to it are explored in the next section.

5.3.1.1. Factors contributing to academic integration. The emerging themes for the factors contributing to academic integration are presented in Table 3.

Table 3

Weighting of Emerging Themes for Factors contributing to Academic Integration

Theme	Weighting
Interaction with academic staff (lecturing staff)	17
Classroom centrality	9
Preparatory education	8
Self-efficacy	8
Interaction with peers	7
Academic engagement	7

Motivation	6
First-generation	5

According to Tinto (1993), the factors that influence academic and social integration are (1) personal (pre-entry attributes and personal goal commitment of the student) and (2) institutional (the institutional attributes – goals and commitment - that contribute to or hinder student integration). The results of this review demonstrate these factors in various forms and degrees in an attempt to answer the research question: Which factors influence the academic integration of first-year higher education students? The predominant themes emanating from the review to answer this research question, in order of frequency, are:

5.3.1.1.1. Interaction with academic staff. The critical role of academic staff emerges in the review as the leading factor contributing to the academic integration of first-year students. The results of this review are replete with students indicating that relating to academic staff helped them achieve academic success. Frequent meetings and interactions with teaching staff are associated with the higher likelihood of persistence for students. This is demonstrated in many of the studies in the review, for example, Bradbury and Mather (2009); Brooman and Darwent (2014); Fergy, Marks-Maran, Ooms, Shapcott and Burke (2011); Hixenbaugh et al. (2012); Leveson, McNeil and Joiner (2013); Mamiseishvili (2012a); and, Turner and Thompson (2014).

The review results confirm the findings from previous literature by Tinto (1993); Astin (1993); Pascarella and Terenzini (1991); Tillman (2002); Rhodes and Nevill (2004); Wilcox, et al. (2005); McKay and Estrella (2008); Deil-Amen (2011); and many others. Astin (1993) and Pascarella and Terenzini (1991), for example, found that students who interact more frequently with academic staff report significantly greater satisfaction with the university environment. Likewise, Deil-Amen (2011) noted that access to instructors helped students feel more integrated and connected to campus. Lecturing staff thus have a positive influence on retention. However, Deil-Amen (2011) also found academic integration, through interaction with teaching staff, to be of greater significance for community college students (USA two-year higher education institutions) than social integration and relations with classroom peers. In contrast, the review indicates that the results are different for four-year degree institutions, where

social integration is found to be of greater significance for the first-year cohort, especially in the beginning (Wilcox, et al., 2005).

The results are presented under the following sub-themes that emerged from the review.

- *Personal interest.* Knowing that staff care has a significant impact on a student's success. For example, Hixenbaugh et al. (2012) found that when students in their first year encountered staff who cared about teaching and took an interest in their students' development, they were more likely to do well in their degree. This sentiment of caring and supportive staff, is echoed by many others. For example, in a qualitative study by Bradbury and Mather (2009), participants initially reported a lack of confidence in their ability to succeed; however, intimidation waned "particularly when students realized their professors cared about their success" (p.269). Bradbury and Mather (2009) further mention that "[r]esponsiveness, a congenial atmosphere, and concern for students' needs" were factors that eased participants' entry into university (p.269). The students enjoyed the inclusive environment and some were even "surprised and pleased by the overall helpfulness of [academic, professional and administrative] staff" (Bradbury & Mather, 2009, p.270).

The importance students place on staff knowing their names is emphasised by Fergy et al. (2011). Students who perceived that their facilitators knew them and understood their learning issues showed greater persistence and success. This speaks to feelings of validation felt by students, leading to greater confidence in their ability, especially for those who are the first in the family to enter higher education (Fergy et al., 2011).

Emphasising the value placed on this connection with teaching personnel, an interviewee in a study by Madge, Meek, Wellens and Hooley (2009) sums it up quite well: "The university has many immensely educated members of staff, but throughout my academic life, the teachers in whose classes I performed best were those with whom I had the best relationships, irrespective of their level of knowledge. - female, Law, age 19" (p.151).

Academically, first-year students are most likely to leave for reasons relating to their lecturers or administrative staff appearing unsupportive or inaccessible (Willcoxson, 2010). In addition, Willcoxson (2010) claims that this happens especially in the first semester of the first year, emphasising the need for staff to focus on early

connections and for the university and faculties or departments to provide such opportunities.

Further advantages of staff support are reported by Brooman and Darwent (2014), who observe that students who perceived greater staff support reported higher academic efficacy and a greater sense of belonging, with both of these factors also receiving prominence in this review.

Furthermore, it has also been found that students who are better prepared for university (Pan, Guo, Alikonis & Bai, 2008), as well as those who communicate well (Waldron & Yungbluth, 2007) have greater contact with staff and other inter-relations in general, and this enhances their returning to university the following year.

- *Learning Communities*. Small group contexts like Learning Communities and tutorials provide ideal opportunities for closer relations between students and staff. For example, Severiens and Schmidt (2009) argue that the higher scores on academic integration in PBL [Problem-based Learning, a small-group academic intervention at a Dutch university] imply that teachers in a PBL environment more often make an effort to know their students, take them seriously and "invite them into the profession" (p.67). This warm and inviting pedagogical approach is laudable given its potential positive impact on the attractiveness of a profession to students.

Similar results have been found by Fowler and Zimitat (2008) in their Learning Community, Common Time, at an Australian university. They demonstrate that students appreciated the opportunity to talk with academic staff as individuals, on a level "almost independent of the student–academic staff relationship" (p.43). For some it decreased stress and increased confidence, and for others, it was seen as a longer-term investment in their professional future. It is noteworthy that these informal interactions with students were occasions where staff probably exerted their greatest socialising influence on students by sensitising them to the "tacit norms and values of academics and their professional discipline" (Fowler & Zimitat, 2008, p.43), similarly to Severiens and Schmidt (2009) above. This is an extraordinary contribution towards students' socialisation not only into the customs and culture of higher education, but also into their future career.

Zaitseva, Milsom and Stewart (2013) also found that those students who felt supported by their tutors were more likely to mention the university in favourable comments, referring to the university as "being helpful" and feeling that they had made

the "right choice" by coming to the university (p.233). The students were also likely to mention their course in a favourable context when they felt accepted and integrated into the learning community, supported by staff and if they felt engaged. In addition, Zaitseva et al. (2013) suggested that the availability of lecturing staff contributed directly to a positive feeling about the course. In a similar vein, these findings are endorsed by Wilcox et al. (2005), who comment that failure to connect with a personal tutor contributed to students' ultimate decision to leave. They assert that if academic staff are aware of the "intense anxiety and fear" that new students experience in relation to the social aspects of transition to university, then personal tutors can play a significant part in conveying to students that these feelings are "not unusual" (p.719).

In conclusion of this section, the broad implications are that students who develop an interactive relationship with academic staff increase their chances of academic persistence (Turner & Thompson, 2014).

5.3.1.1.2. Classroom centrality. Several studies in the review highlight the fact that the teaching and learning that takes place in the classroom has a significant impact on student retention and persistence. These findings in the review support the past research of Tinto (2015), Pascarella and Terenzini (1980, 2005) and Kift et al. (2010), who urge us to take seriously the importance of classrooms, for student retention. Tinto (2015) views classrooms of the first year as critical "ports of entry" that provide new students entry to the broader academic and social communities of the university (p.10).

The following sub-themes emerged for the importance of classroom centrality.

- *Role of academic staff*. The seminal work of Tinto (2015) highlights the important role academics play in institutional efforts to promote student retention, and emphasises the "impact of pedagogy" and the ability of academics to construct classrooms, especially in the first year, in which students are required to be actively engaged, preferably with other students, in learning activities (p.10).

Likewise, it is also clear from this review that academic staff can play a substantive supportive role in aiding first-year academic and social integration into higher education. For example, Baker (2012) used classroom karaoke as an icebreaker in a big class at the beginning of the year in an attempt to reduce students' anxiety and to get them to make friends in class. The activity rendered the lecture

theatre a more informal space, leading a number of students to report feeling relaxed and, therefore, open to participation and engagement. The exercise altered students' perceptions of the learning environment in a positive way. This point accentuates lecturing staff skills in enhancing the teaching and learning context.

Interestingly, similar findings in the review are reported by Willcoxson (2010), who points out that academically, first-year students are most likely to leave for reasons relating to the skills of lecturing staff. Willcoxson (2010) is of the opinion that if lecturers fail to create learning experiences characterised by "clarity of content and expectations, engagement and helpful and timely feedback," students are at greater risk of withdrawal (p.627). It is thus notable that those likely to depart are strongly influenced by perceptions of teaching quality and support.

Teacher qualities (expressed in the review) are further underscored by first-year students commenting extensively on "passionate," "engaging," "inspiring" teaching, and "genuinely enthused" lecturers and seminar leaders who make their time at the university enjoyable (Zaitseva, et al., 2013, p.233).

- *Active learning*. Wilcox et al. (2005) report that much of the recent work on retention has emphasised the importance of the teaching process for academic and social integration into the institution. Classrooms must also offer opportunities for students to engage with the subject in a meaningful way, as Braxton et al. (2008), in the review, point out. In this regard, they found that the use of active learning practices plays a significant role in the retention of first-year higher education students. Their study indicates that active learning practices that lecturing staff employ, shape in students the perception that their university is committed to their "welfare in general and their growth and development in particular" (p.81), a perception that leads to their sense of integration.

The participants in Braxton et al.'s (2008) study found their classroom experiences "energizing: they were treated as adults" (p.81), they were invited to participate in class discussions and interact with the lecturers, and encouraged to actively engage in projects and activities. Likewise, Bradbury and Mather (2009) report that many of the participants in their study mentioned that they enjoyed the variety of instructional methodologies employed by their lecturers. The techniques increased their interest and involvement in classroom activities. They especially enjoyed the in-class discussions and opportunities to interact with academic staff, appreciated the

"easy going style" of some of their lecturers, and found the use of technology "engaging and helpful" to their learning processes (Bradbury & Mather, 2009, p.270). It, therefore, becomes apparent that the role played by active learning and in-class teaching practice is closely linked to academic engagement, another significant factor found to contribute to student success.

In addition, analysis by Severiens and Schmidt (2009) show the direct positive effects of the learning environment on study progress: students in their PBL groups obtained more credits compared to students in more conventional curricula. Moreover, the levels of social and academic integration were also higher among students in the PBL curriculum. These research results indicate that activating learning environments foster both academic and social integration.

- *Role of the institution***.** Teaching practices that encourage students to engage in doing and thinking during class, as opposed to passively listening, influences students' belief about how much their institution cares about their success (Bradbury & Mather, 2009). These researchers are of the opinion that there is a positive relationship between active learning and student perception of the institution's commitment to their achievement. The review results thus suggest that institutions can influence retention rates, though they may be constrained in some ways. In this regard, Leveson et al. (2013) suggest that learning is "an outcome of the interplay between student and institution" (p.941) and how students experience their learning is determined by many factors, including their educational beliefs and background, how they perceive the learning context and how they approach their learning. Institutions help shape student perceptions and learning approaches in the ways they structure the learning context – for example, the design of "teaching approaches, learning spaces, course design, assessment, support programs" (Leveson, et al., 2013, p.941). It is this structure that determines the opportunities and motivational incentives necessary for student involvement. From this perspective, retention sits firmly in the sphere of institutional influence and in the critical importance of factors such as teaching and the teaching context in engaging and retaining students (Leveson, et al., 2013).

The review results with regard to the importance of institutional commitment in the retention discourse, confirm the value placed on this factor by Tinto (1993, 2015).

- *Assessment.* Some authors raise the importance of fair assessment (Bitzer, 2009) and timely feedback (Zaitseva, et al., 2013) as institution-related academic factors that seem to be potentially major contributors to the student learning process and to student integration. Zaitseva et al. (2013), for example, found that first-year students in their study valued feedback that is “timely,” “constructive,” “easy to understand” and “boosts confidence” (p.233). The ability of the feedback to explain what was done well and to give a clear direction of how the work could be improved, was positively commented upon by the first-year students in their study. Comments demonstrated that prompt and helpful feedback served as an indication of progress and evidence that the student *fits into* the institution, thus enhancing confidence and belief in their ability. The consistency of the feedback was also indicated as particularly important; inconsistent feedback led to confusion and not knowing how to improve (Zaitseva, et al., 2013).

- *Commuter students*. The review demonstrates that the centrality of the classroom experience is of special importance for commuter students, since many of them may tend to come to campus mainly to attend class, use the library and go home, with little or no further engagement with the university after that. The classroom is thus the common denominator for all students; it is the one place where they all have to be, where most students are to be found, and where lecturers have their attention at most. The classroom therefore holds a powerful position in its importance of influencing student retention.

- *First-generation students*. Bradbury and Mather (2009) explain that because free time is absorbed into work for many first-generation students, the classroom experience of these students may be particularly important. That is, small classes and interactive academic experiences allow students to find a connection to the campus when their opportunities for connecting outside the classroom may be more limited. This is similar to previous literature findings, for example, Deil-Amen’s (2010), that the classroom is the fulcrum for student learning and engagement, and as such, requires serious attention as a factor for student retention and persistence.

Lastly, it is clear that the classroom experience is closely linked to a few other important academic integration themes, for example, academic engagement, the importance of students' interaction with academic staff and self-efficacy.

5.3.1.1.3. Preparatory education (previous academic achievement). As could be predicted, several studies in the review indicate that preparatory education remains a highly significant determinant of first-year study success (Arnold, 2013; Bass, 2011; Bitzer, 2009; Gomez-Arizaga & Conejeros-Solar, 2013; Hixenbaugh, et al., 2012; Mamiseishvili, 2012b; Nel, Troskie-de Bruin, & Bitzer, 2009; Willcoxson, 2010).

These studies indicate that previous academic achievement and having clear degree goals (cf Tinto's, 1993, goal commitment) have significant positive effects on academic integration, and academic integration in turn has significant positive effects on the persistence of undergraduate students, including international students. For example, Hixenbaugh et al. (2012) found that having higher entry qualifications was significantly related to degree outcome and that older students were better suited to the demands of university than younger students. Similar findings are echoed by Willcoxson (2010): academically, first-year students are most likely to leave if they feel they lack the academic preparation necessary for university study.

Given its inequitable past, South African studies in the review by far make the strongest points about academic under-preparedness. For example, studies by Bass (2011), Bitzer (2009), and Nel et al. (2009), demonstrate that the majority of first-year students enter higher education with academic backlogs that require academic support, and unless this support is adequately provided, the backlogs can affect their academic integration negatively. This is true for most programmes and it is mainly due to a weak high school system (Bitzer, 2009). These results confirm the findings of previous research by Letseka and Maile (2008), Manik (2014), Manik (2015b), Ramrathan and Pillay (2015), and Sibanyoni and Pillay (2014), who argue in general, that South African students are under-prepared for the demands of higher education.

Furthermore, Bass (2011) comments that students often arrive at university with "a false sense of security that they are actually competent people" (Bass, 2011, p.49). A participant in Bass's study expresses concern with regard to the discrepancy between Grade 12 results and a student's real potential:

> The other challenge that I - the other problem that I'm greatly concerned with is the results of what they attained in matric. Um, what's on paper and the potential of the student is quite different. They do not speak the same language if you may say that. And that for me is the greatest challenge (p.49).

This sentiment is echoed by Nel et al. (2009), who also found that learners who wished to enter higher education perceived themselves to be ready and well-prepared for university study. However, when they actually entered university they realised that their schools, especially previously disadvantaged schools, had left them unprepared or under-prepared for university studies. They also had unrealistic expectations with regard to maintaining their school academic performance at university, and about specific subjects and career options. In addition, the impact of sudden social freedom has a negative influence on their progress. Nel et al. (2009) are of the opinion that when universities market themselves to prospective students they generally paint an attractive picture for prospective students, but they ought to provide a more realistic picture of the academic challenges that students have to face in higher education.

Bass (2011) indicates that the majority of students entering South African tertiary education can be classified as at-risk learners. Many come from rural areas and have difficulty in adjusting to city life. Moreover, the institutions that they attend are large and they can become alienated in the system. In addition, they very often have financial difficulties. Furthermore, they may come from "highly regimented schools and have succeeded by following instructions" (Rutherford & Matlou, 1998, p.153). When they arrive at university, they generally find that the expectations of them in terms of personal autonomy and "strange academic practices" overwhelming, and "[t]hey may spend the first few weeks of term in a fog, trying to adjust to a very alien environment" (Rutherford & Matlou, 1998, p.154). The study by Nel et al. (2009) shows that, as a group, students from disadvantaged schools are academically less prepared for university than their peers from privileged schools. This coincides with various past studies on retention and throughput rates in higher education (Letseka & Maile, 2008; Tinto,1993). Under-preparedness influences both the successful transition from school to university and throughput rates. It seems impossible for universities to catch up during the transitional phase or even in the first academic year with the backlogs, which are embedded in the remaining inequalities of the South African school system (Nel, et al., 2009).

Unrealistic expectations, even of top school achievers, hamper the transitional process and contribute even further to under-preparedness for university studies. These review findings also resonate with the past results of international researchers like Yorke and Longden (2008), who emphasise the negative role that unrealistic perceptions and expectations have on academic success in higher education. Current review results, similar to Bass (2011) and Nel et al. (2009), are reported in a Chilean study for gifted students: academic preparedness also has an influence on the adjustment of gifted students to a post-secondary academic setting, and this adjustment affects the way they see themselves (Gomez-Arizaga & Conejeros-Solar, 2013). This, of course, also relates to the theme of self-efficacy and feeling confident and competent. In the Chilean study, one of the main problems with adaptation for the group from vocational schools, was the lack of content knowledge needed to meet the minimum requirements for success in their university courses (Gomez-Arizaga & Conejeros-Solar, 2013). Being unprepared is one of the reasons for their academic struggles.

As far as special interest groups are concerned, results for international students and gifted students demonstrate the same results as for other students. International students who come to the USA with better academic preparation and language skills are more likely to persist than students who lack the language proficiency and academic preparedness (Mamiseishvili, 2012b, p.13). In addition to academic performance, degree plans and aspirations have a positive effect on international student persistence. Mamiseishvili (2012b) also maintains that the determination to earn a degree in the USA seems to ensure that international students will pursue their studies, despite the likely challenges of adjusting to a foreign culture and unfamiliar higher education environment.

Some review studies show that ineffective career guidance is one of the main reasons why students struggle. This confirms previous findings by Moodley and Singh (2015) and Manik (2014) that inadequate career guidance can lead to unrealistic expectations with regard to specific study programmes and incorrect study choices, which hampers effective academic integration.

The above confirms that under-preparedness has a negative effect on academic integration.

5.3.1.1.4. Self-efficacy/Feeling competent. In accordance with previous research, a substantial number of the studies in the review illustrate the utility of self-efficacy in predicting student success. As such, these studies have shown that self-efficacy is a positive determinant of desired academic outcomes, and students reported that having confidence in their academic abilities (self-efficacy) aided them in achieving their goals.

The following sub-themes emerged from the review.

- *Definition and description.* Self-efficacy refers to an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1977). Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behaviour, and social environment. In a similar vein, Tinto (2015) contends that self-efficacy is “typically defined as a person's belief in their ability to succeed at a specific task or in a specific situation” (p.7). It is one manifestation of how individuals come to perceive themselves from past experiences and interaction with others and their capacity to have some degree of control over their environment. Thus, according to Tinto (2015), self-efficacy is learned and not inherited.

Tinto (2015) also notes that a sense of self-efficacy influences, in turn, how a person addresses goals, tasks, and challenges. A strong sense of self-efficacy promotes goal attainment. Persons with high self-efficacy will engage more readily in a task, expend more effort and persist longer in the completion of that task and do so even when they encounter difficulties. Conversely, a weak sense of self-efficacy tends to undermine achievement. Tinto (2015) stresses that self-efficacy is the foundation upon which student persistence is built and that “students have to believe or come to believe that they can succeed in university. Otherwise there is little reason to continue to expend the effort to do so” (p.7).

Studies in this review reiterate the findings in previous literature like Tinto’s (2015), that confidence plays a critical role in student integration and success. For example, Wood, Newman and Harris (2015) suggest that greater integration is associated with greater self-efficacy.

The results mainly demonstrate which factors influence self-efficacy and confidence, namely, the important role of teaching staff, including feedback about

progress, academic skills in bolstering students' confidence in their own academic ability and the case for students from disadvantaged backgrounds. These factors are described below.

- *Role of teaching staff*. In a study by Bradbury and Mather (2009), all of the participants were initially intimidated by their "professors" (p.269). Lacking familiarity with the academic environment and not knowing what to expect, intensified their [the students'] feelings of insecurity. The students generally lacked confidence in their ability to succeed; however, intimidation faded, "particularly when students realized their professors cared about their success" (Bradbury & Mather, 2009, p.269). In a similar vein, Wood et al. (2015) report that students with high levels of academic staff interaction achieved greater scores for English self-efficacy. Likewise, Fowler and Zimitat (2008) found that students appreciated the opportunity to talk informally with teaching staff as individuals and for some, it decreased stress and increased confidence. In their longitudinal study, Brooman and Darwent (2014) demonstrated that students who perceived greater support from staff at the beginning of the first year reported "higher self-efficacy, autonomous learning beliefs and study habits at [the end of the first semester]" (p.1537). The perception of staff support strengthened by the end of the first semester, and at this point, students who perceived greater staff support, reported higher academic efficacy.

Similarly, in a South African study by Bass (2011), students report how the academic literacy lecturer helped them adjust successfully to university, implying that the nature of the intervention programme for these Dental Technology students, promotes feelings of competence and hence, academic integration.

- *Feedback*. Zaitseva et al. (2013) comment on the important role of feedback in the student learning process: first-year students valued feedback that is "timely," "constructive," "easy to understand" and "boosts confidence" (p.233). The ability of the feedback to explain what was done well and to give clear direction of how the work could be improved, was positively commented upon by the first-year students. Comments demonstrated that prompt and helpful feedback served as an indication of progress and evidence that the student *fits into* the institution, thus enhancing confidence and belief in their ability.

- *Academic skills*. Turner and Thompson (2014) demonstrate that the development of academic skills positively influences a student's self-confidence, self-efficacy, attitude toward education and academic persistence. Related to the acquisition of academic skills, of particular concern, is that by the second semester, students likely to depart are not only more strongly influenced by “their perceived inability to succeed at university”, but also by added feelings of inadequacy related to writing skills and a perception of work overload (Willcoxson, 2010, p.634). It is in this regard that Tinto (2015) remarks that universities need to be sensitive to the issue of student self-efficacy and the need for students to come to believe that they can succeed in their studies.

With regard to other academic skills, Wood et al.’s (2015) study shows that maths self-efficacy was significantly predictive of several academic integration measures, including talking to academic staff about academic matters, and amongst others, using the internet to access library resources. This is indicative of the perception of mathematical ability as an important skill. As reported in Wood et al. (2015), Bean and Eaton’s (2001) *psychological model* suggests that perceptions of academic competence and confidence prior to university serve as the foundation for the psychological processes underlying integration, and as a result, persistence. Wood et al.’s (2015) study provides some evidence to support the role of self-efficacy in this process.

- *Students from disadvantaged backgrounds*. Some students, especially those from disadvantaged backgrounds, have doubts about their ability to succeed. Interestingly, for Black males in particular, self-efficacy is a critical facilitator of their persistence and achievement at university (Wood, et al., 2015). Tinto (2015) suggests that this might arise from societal views of the capability of different types of students. Universities should take heed of this stereotype threat and its impact on student performance. However, he hastens to add that such doubts can arise among students regardless of background (Tinto, 2015). Even those who begin confident in their ability may encounter challenges during their adjustment to university study that lead them to question their ability to succeed. In this regard, it is noteworthy that recent research has shown that a student’s self-efficacy measured at the mid-point of the first year is a better predictor of first-year performance. This is a good reason why support offered by the university throughout the first year is important to retention.

In summary, results in the review are clear that self-efficacy has a positive influence on student success.

5.3.1.1.5. Interaction with peers. Though it does not feature in the review as prominently as interaction with their lecturers, students' relationships with peers is also a major contribution to their academic integration in the first year of study (Fergy, et al., 2011; Fowler & Zimitat, 2008; Mamiseishvili, 2012b; Severiens & Schmidt, 2009; Wilcox, et al., 2005; Zaitseva, et al., 2013).

Collaboration with peers is explored under the following sub-themes that emerged in the review.

- *Learning Communities*. Fergy et al. (2011) found that learning from fellow students was a significant feature of the Academic, Personal and Professional Learning (APPL) model of support developed and implemented for student nurses as a pilot project in the Health and Social Care Sciences at a UK university. The aim of the project was the enhancement of the social, academic and professional integration of students into the university and the nursing profession. They report that students benefit from the help of a facilitator to set up collaborative networks to enable students to help each other. Peer networks and the support of peers enable individuals to discover opportunities and to develop critical thinking skills.

In a similar context, Fowler and Zimitat (2008) report that students in their study were clear about particular aspects of Common Time (a Learning Community at an Australian university) that they found most beneficial: next to the opportunity to interact with staff, was the opportunity to interact with their peers and the sense of support they experienced. Fowler and Zimitat (2008) explain that students who tended to visit campus only to attend lectures or use the library, rather than be part of the university, did so to their own detriment. This is in accordance with past research by Tinto (1993), who demonstrates that students who retained strong commitments to previous social networks rather than forming new campus-based social groups (one of the first steps in social integration), consequently have their expectations left unfulfilled. These expectations that a university experience offered are "intellectual challenge and social excitement" (p.43). Students who had not become involved in the academic or social community of the campus beyond the car park and their lecture theatre, missed out on opportunities that could energise them and provide a more enriching university

experience (Fowler & Zimitat, 2008). This is closely linked to the factor of involvement, a theme dealt with later in this study.

- *Study groups*. Other findings in the review also highlight the importance of study groups and peer interactions outside of class about coursework, assignments, or other academic matters (Mamiseishvili, 2012b), and of the importance of interactions with staff and interaction with peers to enhance students' returning to university for re-enrolment (Pan, et al., 2008). Severiens and Schmidt (2009*)* also assert that higher levels of social and academic integration of students in a PBL environment, indicate that these students were more satisfied with the quality of formal and informal contacts with their lecturers, as well as the quality of formal contacts with their peers. Moreover, as reported earlier, students were also likely to mention their course in a favourable context when they felt accepted and integrated into the learning community, supported by staff and peers, and engaged (Zaitseva, et al., 2013).

- *Facebook*. A few studies report on the use of *Facebook* as a means of connecting with university peers. Students tend to use this social media platform as an important link for keeping in touch with family and old friends from home in the transition period to higher education. However, as students become more embedded in university life, *Facebook* is increasingly used by some students for contacting other students to organise group meetings for academic project work, revision and coursework queries. This platform becomes more than just a *social* network for some students and starts to become an informal educational network as well (Madge, et al., 2009).

The ways in which *Facebook* could be used included providing social and peer-led academic support for students in departments, revision opportunities and using *Facebook* to inform students of changes to lecture times. Notably most of these suggestions are not to do with the pedagogic aspects of teaching and learning, but more to do with departmental or module-related administrative arrangements (Madge, et al., 2009).

The above findings confirm previous studies by Deil-Amen (2011); McKay and Estrella (2008); Nunez (2009); Rienties et al. (2012); Sibanyoni and Pillay (2014); and Tinto (2015), who highlight the value of peer interactions and establishing friendship networks in the first year of study.

5.3.1.1.6. Academic engagement. Academic engagement is closely connected to both the themes of classroom centrality and interaction with academic staff (teaching/lecturing staff), since the classroom is the epicentre of such engagement, and the skill of lecturing staff is an important feature of engaging students in a meaningful way.

Studies in the review suggest that engagement (also sometimes referred to as involvement) contributes significantly to student success. These findings are consistent with what others have said. Seminal research by Astin (1993) and Kuh (2008), refers to the benefits of involvement and engagement respectively. Likewise, Tinto (1993) is also of the opinion that the more students are engaged and involved in their own learning, the more "quality effort" (p.615) they invest in their learning.

In a similar vein, participants in a review study by Bradbury and Mather (2009) attributed their academic success to several factors during their first term at university: "(a) involvement in campus activities; (b) attending class, taking notes, and studying; (c) sitting in the front of the class; (d) actively participating; (e) creating a course schedule with breaks between classes; and (f) completing homework before going out with friends" (p.270). These factors are supported by Kane, Chalcraft and Volpe (2014).

The following sub-themes were discerned from the review.

- *Classroom experience*. Fowler and Zimitat (2008) argue that meaningful involvement requires more than just attendance: it requires higher-order intellectual functions and ultimately "culminates in students becoming self-directed learners" (p.42). The more students were involved meaningfully in the academic and social systems of the institution, the more they invested in their own learning. Most students do not arrive in a new degree programme or new institution as independent learners. Rather, they should be encouraged and assisted to develop this capacity and other skills over time with "scaffolding" within their programme (Fowler & Zimitat, 2008, p.42).

Related to this, participants in Bradbury and Mather's (2009) study found their classroom experiences energizing: they were "treated as adults", invited to participate in class discussions and interact with the teaching staff, and "encouraged to actively

engage in projects and activities" (p.269). Many of the participants also enjoyed the variety of instructional methodologies employed by their lecturers. The techniques increased their interest and involvement in classroom activities (Bradbury & Mather, 2009). This is supported by Leveson et al. (2013) who found that students who felt that their study was challenging, active and supported, and who interacted frequently with staff, were less likely to consider withdrawing from their studies.

Most noteworthy, especially for commuter students, Fowler and Zimitat (2008) caution that students who did not become involved in the academic or social community of the campus "beyond the carpark and their lecture theatre" consequently had their expectations of "intellectual challenge and social excitement" that a university experience offered, unfulfilled (p.43). For some students, if not the majority of students, the only time they are on-campus is in the classroom. When class is over, many leave to attend to other obligations, or simply because of travel arrangements. It is for this reason that Tinto (2015) claims that if they are not engaged in the classroom, it is unlikely they will become engaged elsewhere. Once again, this emphasises the criticality of the classroom as the all-important pivotal point for academic integration.

- *Active learning and role of the institution*. The use of active learning practices is closely linked to the classroom experience referred to above. Such learning practices play a significant role in the retention of first-year higher education students. This assertion forms the primary conclusion of a study by Braxton et al. (2008). As pointed out earlier in this study, active learning practices used by teaching staff shape in students the perception that their university is committed to their welfare in general and their "growth and development in particular", a perception that leads to their sense of academic and social integration (Braxton, et al., 2008, p.81).

Likewise, Leveson et al. (2013) argue that institutions help shape student perceptions and learning approaches in the ways they structure the learning context – for example, teaching approaches, learning spaces, course design, assessment, and support programmes. It is this structure that determines the opportunities and motivational incentives necessary for student involvement. From this perspective, retention sits firmly in the sphere of institutional influence, and the critical importance of factors such as teaching and the teaching context, in engaging and retaining students, as has been discussed earlier in this chapter. Leveson et al. (2013) maintain, though, that location and accessibility are largely out of the institution's control, as are

the hours students spend working and/or caring for others, and, therefore, universities should maximise the classroom opportunities for student engagement.

- *Learning Communities*. Learning Communities (LCs) provide more engagement opportunities for students. For example, Eck, Edge and Stephenson (2007) report that when students indicate that their courses include more engaging pedagogy, they (the students) deem these courses more effective. In addition, LC students were more likely than non-LC students to develop critical thinking skills, an important by-product of the right kind of engagement.

Similar results are reported by Jehangir (2009), in a significant study of a Multicultural Learning Community (MVLC) at the University of Minnesota. Critical thinking ability, an important quality of a university education, is one of the by-products of successful engagement in this Learning Community. Clark, cited in Jehangir (2009), observes that “critical reflection of one’s assumptions, discourse to validate the critically reflective insight” brings about transformational thinking and behaviour (p.47). Clark remarks that “transformational learning shapes people; they are different afterwards, in ways they and others can recognize” (Jehangir, 2009, p.47). Jehangir also postulates that the transformation that occurred for many students is one of greater self-awareness, which allows them to examine and question their sense of self. With regard to critical reflection, many students in this study, reported having moved away from “dichotomous thinking” to thinking about complex social issues (p.44). What these findings demonstrate is that critical thinking is the result of sound academic engagement and, as mentioned earlier, academic engagement has the potential to enhance academic integration.

In discourse with their peers, transformation is reflected in students’ ability to acknowledge and empathize with the experiences of others, express their own ideas, and engage in collective meaning-making with issues that may have previously divided them. Students also commented on the role of disagreement, debate, and discussion, or what Johnson et al. (as cited in Jehangir, 2009, p.44), refers to as “constructive controversy” as being critical to deeper learning. The students noted that this had been a new discovery for them. This finding is an excellent example of the true value of opening up discourse inside the classroom and of the ultimate effect of the role of academic engagement on academic integration.

Similarly, students attending and participating in Common Time, were involved in a “mutually reinforcing” academic and social experience, contributing to the process of academic and social integration that resulted in their taking greater responsibility for managing their own learning (Fowler & Zimitat, 2008, p.43). This self-directed learning or “autonomous learning beliefs and study habits” as Brooman and Darwent (2014, p.1537) put it, is regarded as the “hallmark” of successful academic integration (Fowler & Zimitat, 2008, p.43).

- *Role of teaching staff*. The part played by teaching staff is most obviously connected to a student’s classroom experience, which includes engaging teaching practice, like active learning, as mentioned earlier in this section. Astin’s (1993) seminal work argues that each student’s level of involvement has a great influence on his/her learning outcomes and that this is “mediated by engagement with teachers, both in and out of the classroom” (p.298). Likewise, this review suggests that early engagement through induction is an important factor, and emphasises especially the importance of early contact with personal tutors (Kane, et al., 2014). The NMMU induction programme includes *Meeting your Lecturer* sessions at least on three occasions before formal lectures start at the beginning of the first-year academic programme. These include both formal and informal opportunities to interact with academic staff (NMMU First-Year Guide, 2016).

- *Special interest groups*. As mentioned before in this study, results for the integration of students with disabilities are similar to those of able-bodied students. Therefore, participation in classes aided students with disabilities in their academic integration in the same way as for able-bodied students (Shepler & Woosley, 2012). Slightly different results were found for first-generation students: in support of past findings by Pascarella and Terenzini (1991), Bradbury and Mather (2009) in this review demonstrate that first-generation students derive a greater benefit from academic engagement than their continuing generation peers.

- *Extracurricular activities*. It should be noted that engagement with extracurricular activities is also highlighted in the review as a key factor in helping students in the transition into higher education (Kane, et al. 2014). This will be dealt with more in-depth in the social integration section that follows later in this review.

- *Perception*. An important point made by researchers in the review (Bradbury & Mather, 2009; Eck, et al., 2007; Kane et al., 2014; Leveson, et al., 2013) is that what matters is not engagement as such, but the *meaning* students derive from their engagement with other students, academic staff and administrators regarding their membership in the higher education community. This is in accordance with past research by Tinto (1993). More recently, Tinto (2015) points out that it is not integration as such that plays a role in students' success, but rather their *perception* of how they are integrated.

Nevertheless, it is clear from the findings of this review that students' intention to remain in the course was strengthened if their level of engagement was high.

5.3.1.1.7. Motivation. Studies in the review demonstrate that first-year students' perceptions of their levels of motivation have a positive influence on their integration and academic performance (Bitzer, 2009; Bradbury & Mather, 2009; Clark, Middleton, Nguyen & Zwick, 2014; Fergy, et al., 2011; Gomez-Arizaga & Conejeros-Solar, 2013; Mamiseishvili, 2012b).

In the case of Accounting in Bitzer's (2009) study, the perceived level of student motivation emerged as a strong factor that is associated with higher risk and a lack of integration. Likewise, Bradbury and Mather (2009) found that motivation to attend university played a big role in academic adjustment for the participants in their study. These findings are in accordance with seminal research: for example, Tinto (2015) notes that from the students' perspective, persistence can be understood as but one form of motivation. Students have to want to persist and do so despite the challenges they may encounter. Without motivation, persistence is unlikely (Tinto, 2015). He adds that student motivation is shaped, in turn, by a number of factors, most notably self-efficacy, sense of belonging, and perceptions of the value of the curriculum (Tinto, 2015).

One of the prominent studies on student motivation in this review was conducted by Clark et al. (2014). The key findings from the study suggest that "some types of intrinsic academic motivation are mediated by academic integration in their relationships with academic performance" (p.35). In other words, students who attend university for the satisfaction of accomplishing academic goals tend to believe that university helps them develop intellectually, which leads them to perform well

academically. However, it does appear that those who derive very little internal satisfaction in their accomplishments, will see few intellectual benefits of higher education and will be unsuccessful there. There is also evidence that those attending university because they enjoy learning new things, tend to believe that university will serve as a resource for this knowledge, which they successfully attain.

Although intrinsic motivation to accomplish things was found to be the only motivation type that made a unique contribution to academic performance through academic integration, Clark, et al. (2014) report that "intrinsic motivations to know and experience stimulation were also related to academic integration" (p.35). Therefore, it is reasonable to conclude that intrinsic motivation predicts students' ability to adapt to the intellectual demands of university. Regardless of the indirect relationship between academic motivation and academic performance, academic integration is positively correlated with first-year academic performance (Clark, et al., 2014; Fergy, et al., 2011).

In a similar vein, Gomez-Arizaga and Conejeros-Solar (2013) conclude that despite some students' initial "socio-emotional" adjustment difficulties (p.148), motivation for the students in the study helped them succeed and prevented their withdrawal from university. Students in the sample described motivation as an "affirmative dialogue with the inner self translated into a strong desire to overcome difficult experiences and succeed in their career paths" (p.148). Motivation and perseverance, therefore, act as triggers to implement coping strategies to successfully face university stressors, such as developing efficient study habits, managing time successfully, and compensating for the lack of content knowledge to face university courses. Students seemed to use problem-focused coping, a strategy that involves the use of problem-solving behaviours, to face a situation that could likely lead to withdrawal. Motivation to finish tertiary studies can be crucial to some students for whom university is a life-changing experience and a way through which social mobility can be achieved (Gomez-Arizaga & Conejeros-Solar, 2013).

Mamiseishvili (2012b) observes a similar trend for international students to the USA: the determination to earn a degree in the United States seems to ensure that international students will pursue their studies despite the likely challenges of adjusting to a foreign culture and unfamiliar university environment.

It is clear, therefore, that motivation and the determination to get a higher education qualification play a significant role in academic success.

5.3.1.1.8. First-generation students. First-generation students are students whose parents or guardians do not have a higher education qualification, in other words, these students are the first in the family to enter higher education.

It is generally believed that first-generation students have an especially difficult time integrating into higher education, demonstrated by studies in this review (Bradbury & Mather, 2009; Hixenbaugh, et al., 2012; Nel, et al., 2009; Jehangir, 2009; Pittman & Richmond, 2007). The lack of role models and information about the experience and the expectations of the demands of higher education leaves this cohort of students more vulnerable for withdrawal compared to their continuing peers. During their first month at university, many of these students feel uncomfortable and alone.

For example, in a United Kingdom study by Hixenbaugh et al. (2012), a large proportion, 42% of the participants, reported that they were the first in their family to attend university, a marker of social mobility typically reflecting transition from those in lower socio-economic groups. These students reported lower levels of physical health, and lower levels of peer group interactions but, interestingly, were more likely to engage with staff. However, the authors caution that the findings are mixed.

In a similar vein, Pittman and Richmond (2007) are of the opinion that students whose parents had not attended university had lower levels of university belonging than did other students, suggesting that parents with higher education experience, even those who had not graduated, share information that may help prepare their adolescent children for institutes of higher learning and help them feel as if they belong at the university. These researchers found that parental education was predictive of both university academic performance as well as internalising behaviours in students (Pittman & Richmond, 2007). However, they add, given the small effect sizes, it is likely that other student characteristics are more important in predicting university adjustment, although parental educational experiences may play a small role. Parental education, unlike what was predicted, did not moderate the relationship between university belonging and university adjustment (Pittman & Richmond, 2007).

Nevertheless, it must be noted that first-generation students rely just as much on the support from their parents as students whose parents completed their schooling or have a higher education qualification. According to Nel et al. (2009), though, it seems as if the parents of first-generation students do not always provide effective support. It is for this reason that Nel et al. (2009) point out that universities should not

only involve schools in the process of preparing prospective students, but parents as well.

The connection with other important factors for academic integration play a vital role for first-generation students: for example, Bradbury and Mather (2009) suggest that first-generation students derive a greater benefit from academic engagement than their continuing generation peers. Jehangir (2009), on the other hand, suggests that expressing identity is of particular importance for first-year, first-generation students, many of whom seek to hide rather than reveal their multiple identities in an effort to fit into the picture of a "typical university student" (p.40). Jehangir (2009) explains rather descriptively: "To give voice to one's identity is to lay claim to a stronger sense of self and in doing so to gain confidence to express ideas, engage in dialogue, and develop a capacity for self-authorship" (p.40).

To summarise, there are multiple factors that contribute to academic integration: a sense of support from both academic staff and peers, with the emphasis mainly on the former – the feeling that staff care and that they have your interests at heart; interaction with lecturing staff both inside and outside the classroom; informal talks with academic staff members is especially helpful; perceiving assessment as fair; good teaching and learning practice; engagement or involvement in and out of the classroom; self-efficacy or increased confidence, which derives from various sources, amongst others from positive interaction with academic staff; motivation and determination to succeed, which can also develop from amongst others, encouragement and assistance from academic staff; the acquisition of academic skills and knowledge; and whether a student is first-generation, all positively lead to academic integration.

Now that the factors contributing to academic integration have been described, the outcomes of academic integration will be considered.

5.3.1.2. The outcomes of academic integration. The weighting of the emerging themes for the outcomes of academic integration is provided in Table 4.

Table 4

Weighting of Emerging Themes for the Outcomes of Academic Integration

Theme	Weighting
Persistence	10
Academic success	9
Retention	6

Studies in the review confirm Tinto's (1993) seminal research and theoretical framework that the result of successful academic integration is student retention, persistence, academic achievement and eventually graduation (Burks and Barrett, 2009; Clark, et al., 2014; Fowler & Zimitat, 2008; Leveson, et al., 2013; Pan, et al., 2008; Nel, et al., 2009; Mamiseishvili, 2012b; Turner & Thompson, 2014).

Tinto's (1993) model states that goal and institutional commitment both influence and are influenced by academic and social integration, which in turn subsequently lead to retention, persistence and academic success. However, the studies in this review do not yield much in terms of results related to whether or how goal and institutional commitment affect or are affected by academic and social integration. They do not show negative results but just by way of omission, the influence either way is not strongly confirmed. The emphasis, rather, is on the personal and institutional attributes and conditions that have an influence on academic and social integration.

However, a few telling points are made. For example, Fowler and Zimitat (2008) stress that meaningful involvement is more than just attendance; it requires higher-order intellectual functions and ultimately culminates in students becoming self-directed learners. Since studies in this review have shown that meaningful involvement leads to academic (and social) integration, one can, therefore, assume that integration ultimately culminates in students becoming self-directed learners. This is a very important outcome for academic integration, since the aim of a good education is more than just improving graduation rates for the institution, and more than obtaining a certificate for a student.

The grand and ultimate educational ideal of inculcating in our students the higher-order intellectual functions of which Fowler and Zimitat (2008) speak, and helping them to become self-directed learners, are the important and definitive aims of higher education. Teaching students to be independent thinkers is the hallmark of

a good education. Therefore, involvement is one of the most important factors in facilitating these aims via academic (and social) integration. These results reflect the age-old question: it is well and good to say that higher education needs to advance retention, but we need to ask of our students: are they *learning* anything?

Continuing along the lines of espousing higher order achievement, Fowler and Zimitat (2008) suggest that taking responsibility for one's own learning is one of the "hallmark behaviours" resulting from positive perceptions of academic integration (p.44). Independent learning is indeed one of the trademarks of higher education.

On a similar higher level, Clark et al. (2014) declare that students who attend university for the "satisfaction of accomplishing academic goals" (p.35) tend to believe that university helps them develop intellectually (a very noble gain, not often heard in today's commercialised society), which leads them to perform well academically. There is also evidence that those attending university because they enjoy learning new things (another noble gain), tend to believe that university will serve as a resource for this knowledge, which they successfully attain. These honourable Socratic ideals and sentiments are not often heard today. Education has become merely utilitarian, a means to an end, and a commodity to achieve a better lifestyle. This is a worthy goal in a developing country where social mobility, economic freedom and upliftment from poverty are critical issues. However, our students should simultaneously be encouraged and supported to strive for higher intellectual gains.

On another tack, Burks and Barrett (2009) report that academic performance has been studied extensively in relation to persistence and "multiple researchers have found that increased academic performance is associated with higher levels of persistence and retention" (p.382). Similarly, Gray, Vitak, Easton and Ellison (2013) propose that academic success in higher education positively predicts re-enrolment. Academic performance and academic success, associated with retention and persistence, are achieved through academic integration.

Mamiseishvili (2012b) found similar outcomes for international students. The results of their study indicate that academic performance, degree goals, and academic integration have "significant positive effects on the persistence of undergraduate international students" (p.13) and that international students who come to the U.S. with better academic preparation and language skills are more likely to persist.

Lastly, Hixenbaugh et al. (2009) found that students who, in their first year, felt committed to their institution, were more likely to succeed (confirming Tinto's 1993

theory). Similarly, the results of a study by Mamiseishvili (2012b) indicate that degree plans and aspirations (commitment to goals) have a positive effect on the persistence of international students. The results of Mamiseishvili's study also show that if international students successfully integrate into the academic system of campus, they will more likely stay enrolled in the institution.

It is clear, therefore, that the outcomes of academic integration are academic success in all its facets: retention, persistence, academic achievement, graduation and the ultimate goal of independent, deeper and meaningful learning. All of these are seen as medium and long term outcomes. However, the immediate goals of academic integration for first-year students are re-enrolment the following year, also referred to as retention, and persistence, or persevering with one's studies and having the resolve to continue with one's education.

The above section concludes the discussion on academic integration. The investigation into social integration follows.

5.3.2. Social integration. Social integration is defined as "a strong affiliation with the university's social milieu: peer group interaction, interaction with academic staff [academic staff], and student organisations" (McKay & Estrella, 2008, p.357). Social integration involves the extent of congruence between an individual and his or her social environment. This type of integration occurs primarily through informal peer group associations, semi-formal extracurricular activities, and interaction with lecturing, professional and administrative staff within the university. Successful social integration involves varying levels of social communication, friendship support, staff support, the benefits of which affects the person's educational goals and institutional commitments.

Fowler and Zimitat (2008) report that social integration involves student participation in extracurricular activities (Tinto,1993), opportunities "for satisfying informal non-academic-related interactions between students and academic staff members, and the development of a professional relationship with at least one academic staff member" (p.44).

The factors contributing to social integration are now presented.

5.3.2.1. Factors contributing to social integration. The emerging themes with regard to the factors contributing to social integration are presented in Table 5.

Table 5

Weighting of Emerging Themes for Factors contributing to Social Integration

Theme	Weighting
Interaction with peers	22
Sense of belonging and identity	19
Interaction with staff	14
Involvement	9
Accommodation	8

According to Tinto (1993), as for academic integration, the factors that influence social integration are (1) personal (pre-entry attributes and personal goal commitment of the student) and (2) institutional (the institutional attributes – goals and commitment - that contribute to or hinder student integration). The results of this review demonstrate these factors in various forms and degrees in an attempt to answer the research question: Which factors contribute to the social integration of first-year higher education students?

Analysis of comments related to the key concepts support the research findings of Tinto (1993), which show that, in their first year, students experience a real emotional journey. Student success is heavily dependent on aspects of social integration.

The predominant themes emanating from the review to answer this research question are presented below.

5.3.2.1.1. Interaction with peers. The results of the review show that the strongest influence on students' social integration is the relationship they develop with their peers.

The participants in many of the studies in the review emphasised the importance of interactions with their student peers, amongst others in Allen-Collinson and Brown (2012); Baker (2012); Bass (2011); Burks and Barrett (2009); Fergy et al. (2011); Fowler and Zimitat (2008); Gilardi and Guglielmetti (2011); Gomez-Arizaga

and Conjeros-Solar (2013); Gray et al. (2013); Hughes and Smail (2015); Jehangir (2009); Lathrop, O'Connell and Howard (2012); and Madge et al. (2009).

Emerging sub-themes are explored below.

- *Support*. The importance of establishing good friendships, which could provide sustained social support, particularly in times of difficulty, was repeatedly highlighted by interviewees in a study by Allen-Collinson and Brown (2012), and is congruent with other research findings of the past (Pascarella & Terenzini, 1991; Tinto, 1993, 2015) and in the review (e.g., Baker, 2012; Fergy, et al., 2011; Gray, et al., 2013; Wilcox, et al., 2005). Participants described how student friends became "new family" and "friendly family" (Allen-Collinson & Brown, 2012, p.508). One participant pointed out poignantly: "If I didn't have this group of friends I'd probably have dropped out of uni" (Allen-Collinson & Brown, 2012, p.505).

Making new friends appears to be of primary importance for many students in the early months of university (Tinto,1993) and may be more important than academic engagement during this time. This finding is echoed in the review by Hughes and Smail (2015), who found that academic concerns did not emerge as a major pre-occupation at this stage of the year. Rather, student comments tended to reflect a focus on the social, personal and organisational aspects of university life. The small number who did make reference to the academic side of their experience focused on a lack of confidence in their own knowledge and skills, and discomfort that they did not fully understand what would be expected of them (Hughes & Smail, 2015).

Likewise, in accordance with previous research by Yorke and Longden (2008), Fergy et al. (2011) found that making new friends in the first year of higher education was an important factor in student retention and satisfaction, and recommended that "universities should facilitate socialisation by employing pedagogic approaches that engage students in collaborative learning activities" (p.127). Wilcox et al. (2005), emphasised, though, that making not just friends, but *compatible* friends, is of paramount importance for students in their decision to stay at university or withdraw. Their findings reveal the importance of making likeminded friends for successful integration into university, and they illustrate some of the processes by which social and academic integration is achieved. For example, in the first few days at university emotional support from family and friends at home provides a buffering effect against the stressful experience of being alone in a new situation, but as students develop

social networks at university, these become their main source of social support during term time (Wilcox, et al., 2005, p.712).

Those authors who have investigated aspects of students' lives outside their course have found that the wider student experience plays a significant role in their decisions about staying at university or leaving. For example, it has been found that leaving in the early part of the course frequently resulted from a failure in social integration, such as difficulties in making friends or homesickness, and it has been demonstrated that students' new social networks at university often provided support to overcome such difficulties (Wilcox, et al., 2005). Similar results by Severiens and Schmidt (2009) show that students who "cooperate well with fellow students," make friends, feel at home in their institute, generally do better academically (p.68). Forming interpersonal relationships with peers might also have longer-term academic impact.

- *Culture shock*. In common with previous studies of the transition to university (e.g., Pascarella & Terenzini, 1991), the findings by Wilcox et al. (2005) indicate that new students need support to deal with "not only the academic culture shock of adapting to the higher education environment, but also the emotional shock of moving from the familiar home environment to a very different life at university" (p.719).

Likewise, Gomez-Arizaga and Conjeros-Solar (2013) found that beyond the academic culture shock referred to by Wilcox et al. (2005), is that students' challenges included initial difficulties adapting to the new social contexts, particularly to environments that have a diverse "socio-cultural composition" (p.148). These difficulties were more evident for students from vocational high schools. This is typically the situation in the South African higher education context, as reported by Bass (2011), where, for example, students from rural schools arrive at university, and for the first time in their lives, are faced with a very diverse socio-cultural environment, and where a much higher level of English is spoken than they are used to. For such students the shock is intimidating and they characteristically are faced with a bigger social adjustment and social integration.

An example of this adaptation in Gomez-Arizaga and Conjeros-Solar's (2013) study was students' referral to "snobby" classmates (p.148), who were frequently students from upper socioeconomic classes that might talk, dress, and think in a different way. However, once the initial social connection was made, students showed "a clear progression in the adjustment to university's social environment by making

new friends and participating in study groups" (Gomez-Arizaga & Conjeros-Solar, 2013, p.148).

These findings are consistent with Astin's (1993) findings about the value of social networks in students' success and adjustment to their first year of post-secondary experiences.

- *Living arrangements.* Wilcox et al. (2005) believe that students' living arrangements are central to the process of making suitable friends. They claim that such friends provide direct emotional support, equivalent to family relationships, as well as buffering support in stressful situations. Course friendships and relationships with personal tutors are important but less significant, providing primarily "instrumental, informational and appraisive support" (Wilcox et al., 2005, p.718). Emotional support from friends provides a sense of belonging and can also help students when they face problems. The type of support that students receive from friends and tutors on their course is different from those provided by the friends in their accommodation, and it is more likely to be instrumental and "appraisal support" (Wilcox et al., 2005, p.718).

Although living in university residences facilitates social support during the early stages of the transition to university, it can also present problems for the maintenance of these friendships. Because of random placement, many first-year students may find themselves having to live with a small group of people with whom they are incompatible. Therefore, accommodation can, on the other hand, be a major source of student dissatisfaction, and the initial social advantage of living in university residences, is later replaced by "an experience of claustrophobia" and lack of privacy (Wilcox, et al., 2005, p.718).

Very importantly, therefore, Wilcox et al. (2005) state that the finding that first-year students' principal social networks are centred not on their course but on their accommodation, suggests that more attention needs to be paid to the aspects of integration into university life that are not directly connected to students' academic experience (Wilcox, et al., 2005). They also found that students who live at home with their parents and mature students benefit particularly from approaches that foster friendships between students on a course, and for other students too, social networks on the course provide support in relation to academic work, which is not available elsewhere.

Gilardi and Guglielmetti (2011) emphasise that even in non-residential contexts building relationships with academic staff members and other students plays a crucial role in retention through a stronger sense of integration for non-traditional adult students. Surprisingly, for traditional students, on the other hand, the protective factor seems to lie in the ability "to assign meaning to the learning experience" (Gilardi & Guglielmetti, 2011, p.48). Perceived social integration does not differentiate the traditional students who drop out from those who continue. This result is quite surprising compared to what is suggested in the literature on retention (e.g., Tinto,1993).

- *Learning Communities.* Not surprisingly, quite a few of the studies focusing on social integration, report on research conducted on the value of Learning Communities and mentoring programmes (see next section), which, they found, are important platforms designed for encouraging and facilitating social integration. Some of these programmes are Common Time (Fowler & Zimitat, 2008); Multicultural Voices Learning Community (Jehangir, 2009), Academic, Personal and Professional Learning (APPL) model of support (Fergy, et al., 2011), peer mentoring programmes by Bass (2011) and Collings, Swanson and Watkins (2014) and a karaoke icebreaker by Baker (2012). I will report on the findings of each of these.

Common Time (CT), a Learning Community at an Australian university (Fowler & Zimitat, 2008), helped students to establish peer networks that supported the psychological transition from high school graduate, at-home parent or employee, to that of university student. CT provided a social network within an informal academic setting for students who were struggling with the new demands of university life. It was a vehicle that "subtly facilitated later academic involvement" (Fowler & Zimitat, 2008, p.42). Notably, all students reported these friendships as important outcomes of CT and of their first-year experience (Fowler & Zimitat, 2008).

Fowler and Zimitat (2008) also found that those who appear to be more at risk are those who remain on the outskirts of university life in terms of social relationships, that is, those who have never engaged in interaction with the members of the university community, despite having assumed formally appropriate behaviour (such as attending lectures). This result raises some important questions about all the literature on adult learning which sees the class as the fulcrum of the adult learning experience (e.g., Deil-Amen, 2011). The relationship the adult learners develop with academic

staff members and other students becomes the most powerful influence on their academic experiences. This relationship can also develop outside the classroom, but it still revolves around the teaching/learning process. However, according to Fowler and Zimitat (2008), the social aspects of education are the foundation for building identification with the role of university student.

A significant result emanating from the study of Fowler and Zimitat (2008) is that students spoke of the "richness of learning" that results from interactions with others who have a diversity of views (p.44), a similar finding to that of Jehangir (2009) on Multicultural Voices Learning Community (MVLC) at the University of Minnesota. For students in the MVLC, the sharing of stories about their experiences, both those prompted by engagement with the curriculum and those elicited by peers, created a sense of place in which they were understood. The diversity of this peer group and the role this heterogeneity played in enhancing students' connections with each other, highlight the value of both diversity and a multicultural curriculum in allowing students to find their "place" (Jehangir, 2009, p.40).

In Jehangir's MVLC, students also found a sense of "family" within their community of diverse peers (p.40). Many students characterised this experience as a normalising one, in which peers filled in gaps in their learning, asked questions that they had wondered about themselves, or expressed confusion about the same problems with which they grappled. Given Astin's (1993) longitudinal study of 25,000 students, which revealed that the peer group was the most powerful influence on academic and personal development, it is not surprising to see that the peer group, also in this instance, had a significant impact on their sense of finding place (Jehangir, 2009).

In a nutshell, Waldron and Yungbluth (2007), sum it up well: LCs enhance student performance through the mechanisms of "(a) improved access to task information, (b) improved relational communication, and (c) social modelling" (p.297).

In their study on the APPL model used for student nurses at a London university, Fergy et al. (2011) explain that, in particular, it was clear that the need to build new social networks and to accomplish social integration, was a dominant preoccupation among the participants. Those who had found social networks, readily identified this as a key factor in early transition success. More importantly, it "loomed large in the thoughts of those who had not found their social place in the new environment and this lack was starkly expressed in emotionally negative terms"

(Fergy, et al., 2011, p.127). They found that the APPL model facilitated socialisation through its collaborative pedagogic approach that engages students.

- *Peer mentoring.* As mentioned in the previous section, mentoring programmes, especially peer mentoring, are indicated to be important platforms designed for encouraging and facilitating social integration, especially for first-generation students, minority students and students from disadvantaged backgrounds

One such significant study in the review was conducted by Collings et al (2014). Their comparative study of the impact of peer mentoring at two British universities found that students who were from the non-peer mentoring [NPM] university were four times more likely to want to leave university 10 weeks into their first semester. The peer mentoring university had slightly lower levels of dropout in general. This study demonstrates that peer mentoring moderated the impact of transitional stress on perceived social support, self-esteem and positive affect; these outcomes are discussed in greater detail below (Collings, et al., 2014, p.937).

Peer mentors provide advice on aspects of the "hidden curriculum" and information that could not be received through handbooks (Collings, et al., 2014, p.937). They have had first-hand experience of the teaching methods of lecturers and the style of writing expected by the university. Lack of advice and information could lead to high levels of uncertainty and ambiguity amongst the first-year cohort which in turn could affect levels of self-esteem and competence (Collings, et al., 2014, p.939). Extra support from a peer mentor may act as an "integrating agent" (p.940), introducing new students to one another and helping them feel more at ease within the university social environment. Peer mentored individuals showed a significant decrease in negative affect, whereas the non-peer mentored individuals showed no changes in their levels of affect between the first test at the beginning of the year and the second test at the end of the second semester in Collings et al.'s (2014) study. These findings are very useful for the small-group peer-led orientation programme I lead at NMMU.

The participants in a South African study by Bass (2011) reported that they found the mentorship programme "really helpful" (p.52). They remarked:

> There are some of the things that you could like tell your peer, somebody or a mentor and there is stuff that you can't really go to your lecturer and talk to. It's

> a very good concept. The mentorship, yes, I think it should be an ongoing programme because students do benefit from that. You need somebody, somebody who is on your level to speak to, if you're finding difficulties. Sometimes it's very hard to approach a lecturer, especially being new, in the new tertiary environment and stuff. You find it easier to talk to your peers rather than your lecturers, ja, somebody who can actually relate to what you're going through, who understands what you're going through. (p.52)

Therefore, one can conclude that the benefits of a peer mentoring scheme appear to offer higher levels of integration to university and lower levels of intention to leave university.

- *Teaching practices*. For many students, especially commuter students, mature and other non-traditional students, the classroom plays a central role in their social integration. For non-traditional students, the fundamental variables in sustaining the continuation of studies are a greater use of learning support services and higher levels of perceived social integration, i.e., perceiving academic staff and other students as social support to learning. Building relationships with academic staff members and other students plays a crucial role in retention through a stronger sense of integration for non-traditional adult students.

As demonstrated earlier in this study, good teaching practice is one aspect that can facilitate social integration. For example, Baker (2012) demonstrates how an innovative icebreaker, Classroom Karaoke, can be used in a mass lecture environment as a preliminary means of fostering the building of new social support networks for students. Baker (2012) claims that karaoke in the lecture lays the groundwork for student interaction in the small-group setting. Student feedback suggests that, when deployed in the first lecture, this icebreaker can support first-year students' academic and social integration (Baker, 2012).

Students reported that participating in the icebreaker reduced their levels of anxiety about university life and made them look forward to the semester ahead. Moreover, the song lyrics helped students identify the themes that underpin course content in a way that they could relate to their own life experience. In these ways, classroom karaoke, when used in the first lecture, "scaffolds both the academic integration and social integration of first-year students" (Baker, 2012, p.30).

Past research by Deil-Amen (2011), has also suggested that community college students in the USA, do not generally experience social integration in the same way as four-year institutions in that country do. Community colleges are two-year institutions that attract mainly non-traditional students. Likewise, Mamiseishvili (2012a), in this review, also indicates that social integration for community college students, is intertwined with academic integration, with the two forms of integration often developing simultaneously, mainly in the classroom and around other academic concerns. This is also the general case for commuter, mature and other non-traditional students, as well as for many universities in Europe (Gilardi & Guglielmetti, 2011). What these results again highlight, is the critical importance of the classroom, teaching staff competence and good teaching practice.

- *Facebook.* Studies on the effects of *Facebook* on social integration (Gray, et al., 2013) and (Madge, et al., 2009), also produce positive results for social integration. *Facebook* social networks is impactful for student adjustment, according to Gray et al (2013). Social information that is shared through *Facebook*, including information about upcoming events and information about individuals that can help strengthen relationships and establish common ground, should lead students to feel more connected. Students who have higher levels of social adjustment, those who participate in extracurricular activities and who engage with their fellow students through various other activities, are likely to have met, and *friended* more of their fellow students on *Facebook,* than those who do not participate in activities that would lead them to develop a connection to the university. Many of these students are likely connecting on both *Facebook* and face-to face, meaning these relationships may benefit from "multi-modal relational reinforcement or opportunities to exchange support" (Gray, et al., 2013, p.204). Friends on-campus appeared to be at an advantage in terms of social adjustment over those who had connected with fewer classmates.

A noteworthy use of *Facebook* is pointed out by Madge et al. (2009): data revealed that many students specifically joined *Facebook* during pre-registration, as a means of making new face-to-face friends at university, particularly with people in the same residence or on the same course. This strategy is particularly helpful to lessen students' anxieties before they arrive at university. The approach is currently being adopted for the first time for first-year orientation at NMMU for 2017.

Facebook is also used to keep in touch with current friends and family from home (Madge, et al., 2009) to ease homesickness while students adjust to university. It is clear therefore that *Facebook* is an important social tool used by the majority of the respondents in this study to aid transition to university. The importance of making new online friendships with people in the same residence, course or university is apparent – but so too is the importance of *Facebook* for keeping in touch with already existing friends as older offline relationships shift to the online domain. Thus, a complex picture is emerging whereby many students are not simply transferring offline relationships to an online mode, or moving from online to offline relationships; rather many students are doing both simultaneously (Gray, et al., 2013; Madge, et al., 2009). This "reiterative use" of the virtual and place-based worlds is important in providing a flexible multi-modal approach for young people traversing their new lives and identities as students (Madge, et al., 2009, p.144).

Once at university, students utilise *Facebook* to aid their settling in process. Finally, and most significantly, *Facebook* is used extensively to make social links with others at university, thus enriching their socialisation process (Madge, et al., 2009). *Facebook*, though, is not crucial in overcoming loneliness, suggesting the continued importance of face-to-face relationships when making the transition to university (Madge, et al., 2009). *Facebook* is only one aspect of students' social networking practices and clearly face-to-face relationships and interactions remain significant (Madge, et al., 2009, p.152).

- *Communication skills*. Another valuable contribution to social integration is having good communication skills. As can be expected, students with good communication skills tend to make friends more easily, and as indicated previously, friendships play an important role in social integration. This is demonstrated by McEwan and Guerrero (2010), who found that first-year students who perceive themselves as "communicatively skilled" at the beginning of the semester are more likely to report having used friendship formation strategies six weeks later (p.456). First years who report being communicatively skilled and using more friendship formation strategies also "perceive a higher availability of resources from their new social network" (p.456). Some skills, such as the ability to initiate interaction, appear to be especially critical during this process of social integration.

- *Psychological and social components.* There is also support for the view that transition has a psychological as well as a social component (Hughes & Smail, 2015). Students in this study were able to identify both positive and negative cognitive and behavioural strategies that had an impact upon their transition experiences. These researchers claim that "[e]ngaging with these strategies and supporting students to address negative thoughts, emotions and behaviours and to develop positive strategies and beliefs" could potentially ease student transition and build internal resilience (Hughes & Smail, 2015, p.477). In addition, it may send key messages to students that their new university cares about them, their well-being and achievements, and thus improve the early sense of belonging.

- *Induction.* Good induction programmes, or orientation, as it is generally known in South Africa, have been shown to provide an important platform for both academic and social integration (Hughes & Smail, 2015; Lathrop, et al., 2012). Elsewhere in this study it has been demonstrated that failure to make early connections with staff and peers is often cited as a major reason for early departure (Wilcox, et al., 2005).

In an innovative programme to enhance social integration, conducted at a Canadian university, participants in an outdoor orientation programme reported that they developed and continued to feel a strong "sense of community" with their peers and student leaders. They identified that these connections and enhanced social support networks helped them throughout the first term of their studies and they reported that helpful "tips" about campus life (e.g., importance of meeting lecturers, how to plan in advance for assignments) contributed to their academic success. (Lathrop, et al., 2012, p.94). A participant had the following to say:

> Our leaders did a fantastic job helping us understand what first year was going to be like and telling us about all the resources available to us. I think being in an "outdoor classroom" really helped us have more fun and become friends a lot faster than being part of a normal orientation. (p.94)

It is interesting to note that students generally express a preference for induction sessions in small groups to allow for team building and socialisation. Large gatherings in lecture theatres attracted more negative comments (Hughes & Smail, 2015). The small group peer-led orientation format is one currently used by NMMU

with the aim of facilitating socialisation and social integration (NMMU First-Year Guide, 2016). Small group induction sessions offer a safety net for students and can ease their anxieties about university. Hughes and Smail's (2015) view is supported by Pan et al. (2008), who state that higher education staff may also need to focus more on social- and academic-help-related specific programmes other than just general orientation to promote retention and to increase academic performance. For better prepared students, universities may need programmes that promote student social interactions with academic staff and their peers to promote retention and persistence. For the under-prepared students, academic assistance is required in greater quantities. A combination of academic help and social interaction may work better (Pan, et al., 2008). NMMU offers a well-balanced extended socio-academic orientation programme (NMMU First-Year Guide, 2016).

- *Excessive socialising*. The flip side of successful social integration is that students who spend too much time socialising, for example, by partying excessively, and spending too much time on *Facebook* (for social purposes), did so sometimes to the detriment of their academic studies.

Another negative factor related to social integration is that, in fact, the process of social inclusion for some, can become a process of exclusion for others, placing them at risk of isolation, giving rise to feelings of negativity and potentially leading to withdrawal or failure. While *bonding social capital* can positively predict the degree to which students feel they are adjusting socially to university (Gray, et al., 2013, p.203), it can also result in higher walls, excluding those who do not qualify (Hughes & Smail, 2015), with American university fraternities being a prime example of such bonding. *Bonding social capital* refers to the links between like-minded people, or the reinforcement of homogeneity. It builds strong ties, but can also result in putting up barriers. Addressing these concerns proactively would, therefore, seem to be a sensible step on the part of universities. Students who have been assisted to socialise through group work and team building exercises, specifically identify these measures as important and helpful (Hughes & Smail, 2015).

It is clear, therefore, that in order to retain students in both first and second semester of first-year studies at university, it is necessary to foster better social integration (Willcoxson, 2010).

In summary, student relations with their peers is shown to be a critical factor for social integration.

5.3.2.1.2. Sense of belonging and identity. Sense of belonging is a construct similar to university attachment; it is sometimes referred to as connectedness to one's university or perceived university membership or affiliation. Hausmann, Ye, Schofield and Woods (2009) define students' sense of belonging as their "psychological sense of identification and affiliation with the campus community" (p.650). The concept goes beyond just identification with one's institution; it includes individuals' *perceptions* of fitting in and belonging with others at the same institution (Pittman & Richmond, 2007), or, what is also called institutional fit. Included in this construct is a sense of commitment to the institution, an important concept in Tinto's (1993) theory of student persistence. According to Tinto (1993), commitment to the institution promotes academic and social integration. Although connected to the quality of specific relationships with friends, sense of belonging goes beyond friendships to "a more global sense of belonging and feeling connected to a larger community" of an institution (Pittman & Richmond, 2007, p.272).

In addition, Tinto (2015) espouses the idea that academic and social integration in the first year, especially in the classrooms of the first year, is very important, for such engagement not only promotes academic success, it also promotes students' sense of belonging, and in turn "the institutional commitment that serves to bind the individual to the university" (p.9).

Similar to Tinto's (1993, 2015) findings, sense of belonging emerges in the review as a strong indicator for successful social integration and, hence, has a powerful influence on student retention.

- *Identity.* Related to students' sense of belonging, is the issue of establishing an identity within their new environment. Expressing identity is of particular importance for first-year, first-generation students, many of whom seek to hide rather than reveal their multiple identities in an effort to fit into the picture of a "typical university student (Jehangir, 2009). Jehangir's study emphasises that expressing identity is about finding "voice" within a particular setting (p.40). In order to find voice is to discover a capacity to engage in self-expression and, in doing so, to construct knowledge. It is to "engage in the world of ideas, concepts, and feelings, both cognitive and affective" (p.40), and

to find ways to articulate one's place in that world. Finding voice is irretrievably tied to the notion of self within community, because one's voice does not exist in a vacuum; rather, it is embedded in and impacted by "context, language, and position" of the speaker and by the community in which he or she must speak (p.40).

This process of finding voice and finding self is demonstrated as students grapple with understanding, questioning, and articulating their own self-identity. A student relates her story in this regard:

> During my time in this small learning community I have found out many of [sic] things about myself. I have found parts of my identity that I didn't know I had. I have found my drive in life; I want to make a life for myself. I have began [sic] my quest for happiness and comfort, I want to have a career that I am passionate about and a family that depends on me. I want so many things in my life and the first step is my education. (India, fall 2005). (Jehangir, 2009, p.40)

Jehangir (2009) concludes that to give voice to one's identity is to lay claim to a stronger sense of self and in doing so to gain confidence to "express ideas, engage in dialogue, and develop a capacity for self-authorship" (p.41). For many students this process of actively expressing who they are and what they think is a new and empowering experience.

- *Subculture identity issues*. The treatment of in-group over out-group members or subculture identity and its relation to students' sense of belonging, is an issue that Allen-Collinson and Brown (2012) also raise in their study. Allen-Collinson and Brown (2012) found that were clear themes surrounding identity construction particularly in the early days of transition to university, when social acceptance was earnestly sought. Participants in this study at a predominantly sports-oriented institution, reported a high degree of caution in deciding to whom they made disclosure of their Christian identity. The ongoing nature of identity construction and negotiation within the "interactional milieu" emerged strongly from the data (Allen-Collinson & Brown, 2012, p.508). Participants had continuously to 'work' at negotiating a balance between their identities of Christian and Reddie (what students from Redwich University, USA, are called), involving ongoing judgements and decisions (Allen-Collinson & Brown, 2012, p.508).

The nature of the Redwich campus (jock culture) on which the students were housed exacerbated some of these identity anxieties: drinking culture associated both with university and with student sports.

Furthermore, it was clear that identity was not a 'once-and-for-all' accomplishment, but contingent and requiring ongoing identity work; it was always subject to potential contestation (Allen-Collinson & Brown, 2012, p.508).

Members of subcultures who are unable to meet role requirements may face ostracism and/or banishment from the group. Bolstered by strong friendships with Reddies who *did* accept and confirm their dual identity, however, participants' personal identification as both Reddie and Christian was strong. This finding by Allen-Collinson and Brown (2012) offers hope for new students who find themselves in a similar situation: finding friends with a mature mind-set and building strong friendships in this direction, certainly helps to make students feel accepted, endorsing their sense of belonging and hence easing their social integration into the university. The value of diversity appreciation skills for all first-year students, for example during induction, can clearly play a significant role in sensitising students to this need and creating an environment of acceptance and appreciation for all.

Furthermore, some of the identification processes in this study were found to be clearly applicable to first-year university students more generally: for example, Allen-Collinson and Brown (2012) explain that the potential identity disruptions and opportunities engendered by moving away from home to university. Similarly, decisions regarding "situational identity disclosure" confront individuals with any 'discreditable' identity, including in relation to religion, sexuality, ethnicity, dis/ability and a whole range of potentially stigmatising characteristics and conditions (Allen-Collinson & Brown, 2012, p.509). The desire to fit in with their student cohort, and with the campus culture generally, generate fears in students from subcultures especially when the values and norms conflict in many ways with those of the mainstream culture (Allen-Collinson & Brown, 2012).

Moreover, Allen-Collinson and Brown's (2012) study is related to what is also referred to as *bonding social capital*, a construct described previously in this chapter. To reiterate, *bonding social capital* (the connection between people who think the same and an association that promotes homogeneity) can positively predict the extent to which students feel they are adjusting socially to university; however, it can also have negative outcomes resulting in *putting up high walls*, excluding those who do not

qualify (Hughes & Smail, 2015). Therefore, while it fostered a sense of belonging and social cohesion, the very close-knittedness of the student community at Redwich meant that Christian students initially worried that disclosure of their faith would result in their *negative marking* (Allen-Collinson & Brown, 2012).

Participants all reported wanting to fit in and feel socially accepted, and were aware that failure to meet subcultural demands surrounding alcohol consumption might result in ostracism from the social group. The requirement to display commitment to the social life, excessive alcohol consumption and anti-intellectualism was clearly reflected by interviewees: “You’re expected to go out as much as possible, drink as much as possible, do as little work as possible” (Allen-Collinson & Brown, 2012, p.504).

The marked/unmarked framework has been used primarily in relation to analyses of race, class, gender and sexuality, but proves sufficiently generic to be applicable to other identities, amongst which we would include religious identity, where this constitutes part of a person’s visible or declared “presentation of self” (Allen-Collinson & Brown, 2012, p.504).

Similar issues around race and ethnicity are also common themes in transition literature, especially regarding African-American, Hispanic and Latino students. Black male students in particular seem to have a harder time adjusting to predominantly White institutions.

- *Psychological component of sense of belonging*. Hausmann et al. (2009) comment that it is unfortunate, that subjective sense of belonging has not maintained more prominence in research on student persistence, since research in the field of psychology has demonstrated that the need to belong is a fundamental human motivation that can have a powerful influence on behaviour. At a general level, failing to achieve an adequate sense of belonging can lead to increased stress, detriments in mental and physical health, and even suicide (Durkheim, 1956). Furthermore, feeling that one belongs to a group has a host of implications for “cognitions and behaviours,” such as preferential attitudes toward and treatment of in-group members over out-group members, as well as increased altruism and co-operation with the group. With such broad applicability to many other aspects of life, it seems likely that sense of belonging plays a distinct role in student persistence behaviour as well (Hausmann, et al., 2009, p.651).

- *Learning Communities and seminars*. Brooman and Darwent (2014) report that the most positive aspect of their study is the finding that, amongst others, tutor-led seminars predominant in the early part of transition coincide with developing social integration, including a sense of belonging and relationship with staff. Like Jehangir (2009) demonstrated in a study on a multi-cultural Learning Community, at the heart of successful retention and success is a strong sense of belonging in higher education for all students (cf. Wood, et al., 2015).

Hausmann, et al. (2009) tested the effects of a simple intervention designed specifically to increase students' sense of belonging during their first year of university. They found that the intervention had the intended effect on sense of belonging for White students, in that students who received the intervention reported more sense of belonging than students in a control group. The intervention also had significant indirect effects on White students' intentions to persist and their actual persistence. Sense of belonging and persistence of African American students, however, were unaffected by the intervention. (Hausmann, et al., 2009).

- *Hazing*. *Hazing* refers to humiliating and sometimes dangerous initiation rituals (online English Oxford Living Dictionaries). It is the practice of rites or rituals and other activities involving harassment, abuse or humiliation used as a way of initiating a person into a group including a team, club or university. Dias and Sa (2014) present controversial results of their study on the practice of hazing at a Portuguese university. The study reports that hazing, as a threatening initiation practice, elicits not only conformity in newcomers to the group, but also affiliation behaviours toward the group. In fact, the key trigger for the option to participate in hazing is clearly the need to conform, "to play the game" (p.462). Notwithstanding the fact that first-year students are aware of the threatening and, at times, violent nature of hazing, they choose to subscribe to it due to their need for conformity with the group, "playing by the rules" and accepting all outcomes. This compliance is also due to their desire for group affiliation and peer acceptance (Dias & Sa, 2014).

Hazing or initiation practices are generally condemned and outlawed at most universities worldwide, mainly owing to its potentially harmful physical and emotional outcomes. In Dias and Sa's (2014) study, however, the submissive relationship which underlies these initiation rituals is experienced by first-year students

as a “price to pay” for their entrance to the world of university (Dias & Sa, 2014, p.462). However, two different perspectives may be identified: one that is more centred towards first-years (newcomers who view hazing as a way to improve their integration) and another holding more external purposes (newcomers who view hazing as a ritual designed with institutional and community goals). The first perspective encompasses three different goals associated with hazing: (1) promotion of integration, (2) promotion of friendship and (3) freshmen’s enjoyment. The second has three different purposes: (1) older students’ enjoyment, (2) imposition of rules and (3) embarrassment (Dias & Sa, 2014).

Regarding the first perspective, nearly half of respondents believe that hazing promotes friendship relationships among peers. Nevertheless, there are some doubts as to whether hazing is really effective in fostering these relationships. Indeed, while some believe that hazing is an important way to meet other freshmen and even older students, others reflect on the “dichotomy between what is said and what is effectively done” (Dias & Sa, 2014, p.458). A student remarks: “They [older students] say that the aim is that freshmen become friends, but I think the true aim is not that. But it is not for the freshmen’s fun, it is for their own” (Dias & Sa, 2014, p.458).

- *Living arrangements*. According to Bradbury and Mather (2009), students’ living arrangements, on and off-campus, have a major effect on their sense of belonging. The participants living in campus housing enjoy apartment style layout, which facilitated the development of new friendships. They developed confidence in their abilities to manage conflict, live away from home, make new friends, and meet the rigours of university life (Bradbury & Mather, 2009). In particular, these relationships supported their emerging identity as university students.

This supports the research of Brooman and Darwent (2014) who found that, at the beginning of the first year, students living at home reported a lower sense of belonging than students living in university residences. However, this sense of belonging reduced as the year progressed, suggesting that the interventions offered at university may have been more important for those living at home. Students living at home miss out on activities and support which helps students in residences to settle into university at the beginning and who may feel more integrated.

- *Severing old relationships.* There is evidence that may contradict Tinto's (1993) suggestion that pre-existing personal relationships need to be partially severed in order to thrive at university. This study shows that those students who maintained old relationships were more likely to feel a sense of belonging and supported by staff. This may be influenced by two factors – the use of communication media to maintain old friendships and increased numbers of students living at home (Brooman & Darwent, 2014, p.1538).

- *Institutional commitment.* Hausmann et al. (2009) found that sense of belonging had a direct, positive effect on students' institutional commitment, and significant indirect effects on intentions to persist and actual persistence. Their study found that social integration, whose direct effect on institutional commitment has often been highlighted in previous research (Tinto,1993), actually has only an *indirect effect* on institutional commitment through its impact on sense of belonging. It also found indirect effects of sense of belonging on intentions to persist and actual persistence, via institutional commitment. In total, these results suggest that sense of belonging should be included as a variable in models of student persistence (Hausmann, et al., 2009).

Other factors that, to some extent, place some distance or barrier between the student and the university seem to be linked with a lower sense of belonging: physical distance (travelling time, which, as shown earlier, is the case for students living off-campus), and the university not being the first choice, seem to lead to a "diminished connection" with the place of study. The physical environment as a factor, in fact, underpins our sense of self (Kane, et al., 2014, p.200).

In summary, results suggest that a sense of belonging may be a key component of a positive experience for late adolescents in higher education contexts. Higher education students who reported a greater sense of belonging at university were doing better academically, felt more competent scholastically, had higher self-worth and reported experiencing fewer problems (Pittman & Richmond, 2007). Likewise, Hausmann et al. (2009) found evidence to support the inclusion of students' subjective sense of belonging as a "unique factor in a complex model of student persistence" (p.665), findings that are consistent with considerable existing evidence that factors related to students' subjective sense of belonging are related to positive educational

outcomes such as improved academic performance, satisfaction, commitment, and persistence.

5.3.2.1.3. Interaction with staff. Informal interaction with academic staff has a positive influence not only on students' academic integration, but also on their social integration. This is demonstrated by many authors, amongst others, Brooman and Darwent (2014); Hixenbaugh et al. (2012); Hughes and Smail (2015); Jehangir (2009); Settle (2011) and, Waldron and Yungbluth (2007).

A study by Settle (2011) found a strong association with persistence and the interaction of academic staff and students outside of the classroom. Higher education administrators, induction staff and faculties themselves, would therefore do well to review processes and procedures to encourage social contact with academic staff and students as a way to support the persistence of all students, though this is of special significance for first-generation students. Social-capital variables, particularly student integration to the collegiate environment, are strongly associated with persistence of first-generation students. Contact between students and academic staff members outside of the classroom environment is critical to the persistence of students.

Settle (2011) also claim that students must "match" with the social and academic environment of the campus (p.299).

Brooman and Darwent (2014), like others (Fowler & Zimitat, 2008; Jehangir, 2009; Waldron & Yungbluth, 2007) who conducted research on Learning Communities, found that the small-group model with a specified personal tutor or as in some instances, a variety of staff facilitators, appears to help students to integrate and develop support networks. Fowler and Zimitat's (2008) Common Time helped students establish personal links with teaching staff that would potentially inform their later professional life, as well as link with members of the broader community on-campus. The part played by personal tutors during the transition process is therefore important and has been recognised in many previous studies, and is significantly augmented by one-to-one feedback by the module leader.

Waldron and Yungbluth (2007) mention that, in particular, they believe that staff in LCs provide important examples of "social model[l]ing" to impressionable young students (p.297). The academic performance and retention numbers experienced by students in the LC conditions may be a by-product of improved relational communication (Waldron & Yungbluth, 2007).

Aspects of experience of particular relevance are the feeling that staff are concerned for the student's development and teaching and feelings of commitment to the university and its goals. These findings suggest that relationship issues are at the heart of a positive student experience (Hixenbaugh, et al., 2012).

Similarly, the dominant theme to emerge from both cohorts in Hughes and Smail's (2015) study, and from both positive and negative responses, are related to the importance of social support and integration. A student comments:

> I have found the activities to get to know the lecturers and other students useful as they made me get to know people. … Being put into very large lectures during induction week and not having any sort of team building exercises to get to know anyone [was unhelpful]. (Hughes & Smail, 2015, p.471)

The preoccupation with the importance of social integration was not confined to the need to make friends. Interactions with staff, in particular lecturing staff, also appeared to have a significant bearing on early experiences of university. Again, students made reference to this, both when asked for things that helped:

> The friendly and knowledgable (sic) approach of the lecturers that help in making you feel confident to approach them to discuss anything. …I have found that the lecturers have been inspirational as they have had pasts similar to my own, and they have shown we can achieve what they have. (Hughes & Smail, 2015, p.471)

Or when asked what they found unhelpful:

> My … teacher who is not very helpful and I don't think I'll enjoy doing [my course] because of her. (Hughes & Smail, 2015, p.471)

And:

> From the very first day, all staff have been very welcoming, and the chat with the man from the wellbeing service informed me very clearly where I need to go if I need any help or support. …The amount of support available is fantastic

> … taking the time to go over things such as student wellbeing shows that the uni wants and cares that their students succeed. (Hughes & Smail, 2015, p.474)

Of huge significance is the fact that many students commented on how validating it was to be asked about themselves as individuals and to hear about the identities of their peers. Students noted that this process of being recognized and valued was central to finding place (note the connection to sense of belonging and identity). These findings also feature in the literature on community colleges in the USA (e.g., Deil-Amen, 2011) and are applicable to any education environment that is not mainstream or with a significant number of non-traditional students, like minority students or first-generation students. Rendon's (1994) research on first-generation students reflects the importance of this type of validation for first-generation students, and found that students who have "validating encounters," that is, positive experiences with other students, academic staff members, and other staff, felt affirmed about their place in higher education, thus confirming the importance of finding place at an individual level (Jehangir, 2009, p.39).

Therefore, the studies confirm that academic staff play a vital role in ensuring successful transition.

5.3.2.1.4. Involvement. Involvement and engagement positively influence social integration, and successful social integration, in turn, further strengthens commitment and engagement at university. Involvement (Astin, 1993) is defined as the amount of physical and psychological energy and time students invest in their academic life on-campus. Past research by Astin provides ample evidence to suggest that frequent student–student and student–academic staff interactions produce positive correlations with student outcomes. Several other researchers (e.g., Kuh, 2008; Pascarella & Terenzini, 1991) also affirm that involvement or engagement with the academic and social life on-campus plays a key role in students' higher education experience. Pascarella and Terenzini (1991), based on the extensive analysis of the existing research on educational attainment and persistence, concluded that ''student involvement—both generally and in an array of specific academic and social areas or activities—is related in some fashion to intended or actual persistence into the next academic year'' (p. 426). Similarly, Kuh (2008) suggests that student engagement in

educationally purposeful activities on-campus was related to desired outcomes of university.

Several studies in the review support the above-mentioned research, and are also in accordance with Tinto's (1993) statement that involvement in the social and intellectual life of higher education helps learning and persistence (Kane, et al., 2014; Pan, et al., 2008; Zaitseva, et al., 2013). Involvement or engagement in both classroom and out-of-classroom activities promote social integration. Zaitseva et al. (2013) is of the opinion that student success is heavily dependent on aspects of social integration that involve the affective dimensions of their engagement with higher education, while Kane et al. (2014) mention that engagement with extracurricular activities is also highlighted as a key factor in helping students in the transition into higher education.

Furthermore, Kane et al (2014) reports that in the same way as participation in the various aspects of curricular activities (i.e., attendance at lectures/classes, participation in discussion, meeting with academic advisers etc.) is strongly and positively linked with a higher sense of belonging, engagement with extracurricular activities is also highlighted as a key factor in developing a sense of belonging, thereby helping students in the transition into higher education. This finding is supported by Kuh et al. (2005).

In the same way, Mamiseishvili and Koch (2011) also show that students who have never participated in any of the academic or social on-campus activities, are less likely to persist into the second year, than students who were engaged at least seldom, in any of these activities. Academic engagement or involvement activities include meeting informally with academic staff, participating in study groups, talking with academic staff outside class about academic matters, etc. Social engagement or involvement activities include participation in university clubs, sports, and cultural activities. Moreover, results in Mamiseishvili and Koch’s (2011) study suggest that social integration has a stronger positive influence on persistence than academic integration. It is for this reason, as well for the fact that a significant number of students in their study showed a poor sense of belonging midway in the first semester, that Kane et al. (2014) suggest that early engagement through induction is an important factor.

In a South African study, Govender (2014) states that if one examines what else, apart from language proficiency, characterises the behaviour of the successful

student, it appears that student engagement is high on the list. One participant in this study clarified his own position with respect to the effort he had put into engaging with other students and staff as follows: "The University must give the students the environment in which they can have fun and in the process have lived a full university life. They need to encourage that." (p.22).

Similarly, in a study by Gray et al. (2013), using a scale that assessed a variety of dimensions of students' social adjustment, including getting along with roommates, participating in extracurricular activities, and feeling satisfied with one's social life, results demonstrate that students were adjusting socially to university through the dimensions indicated.

In addition, studies by Mamiseishvili and Koch (2011) and Shepler and Woosley (2012) highlight the importance of involvement of students with disabilities in co-curricular activities on-campus and the benefits associated with informal interactions with peers. Results, however, also suggest that students with disabilities integrate in a similar manner to students without disabilities and that students, regardless of disability status, are likely to respond similarly when campus environment, commitment to obtaining a degree, basic academic behaviours, and expected level of involvement in campus organisations are factors in place (Shepler & Woosley, 2012). These results support the hypothesis that Tinto's (1993) model is applicable in understanding the integration of students with disabilities.

Living and Learning Communities (LLCs) provide ideal opportunities for involvement, hereby promoting social integration. For example, Eck et al. (2007) found that LLCs improve student engagement within and outside the classroom. Results in this study show increased academic achievement through social engagement for first-year students. As LLCs continue to extend learning beyond the classroom, the researchers anticipate that first-year to second-year retention and six-year graduation rates will improve and that students at this institution will experience other benefits during their experiences here and beyond.

Likewise, a study by Jehangir (2009) showed significant educational outcomes for engagement. Students in a multi-cultural LLC at the University of Minnesota, engaged in interpersonal bridge-building by engaging with their peers in personal and social ways. These connections among the students impacted them in two critical ways: first, students developed relationships with people from diverse racial and ethnic cultures and religious backgrounds; secondly, studying material from a multicultural

perspective is one thing, but experiencing that learning with culturally diverse peers who are part of one's learning community is quite another. According to Jehangir (2009), the importance of this dual combination demonstrates that bridge building facilitates "meaning making" and helps students ask "big questions" that allow them to think about opportunities for potential transformation of self and community (p.43). This contributes towards what Jehangir (2009) calls "transformational learning" (p.43).

Another example of the positive effects of student involvement is demonstrated in a study by Huesman, Brown, Lee, Kellogg and Radcliffe (2009), who found that first-year students who use campus recreational facilities (CRFs) are better integrated; they also add that these results are noteworthy because they represent positive changes in retention and graduation rates. The authors report that the rich communal potential within CRFs promotes social integration of students with the campus community, which in turn contributes to persistence and academic success. The findings of this study provide strong evidence for continuing to pursue this line of thought (Huesman, et al., 2009).

Taking all of the above together, we can conclude that involvement in higher education is associated with positive educational outcomes for all students.

5.3.2.1.5. Accommodation. On-campus (versus off-campus) accommodation as well as pleasant accommodation seem to be highly supportive of successful academic and social integration. Living on-campus is associated with supportive relationships and meaningful ties, which augurs well for social integration.

For example, findings by Gray et al. (2013), like those of Wardley and Belanger (2013) found that students who live on-campus experienced better adaptation to university than those students living off-campus. The findings suggest that students living on-campus may perceive increased support, potentially due to the proximity of associated ties around them, and are more likely to report being socially adjusted to the higher education experience (Gray, et al. 2013; Wardley & Belanger, 2013). University residences post notices of social events, study groups, sports, clubs and volunteering opportunities. With encouragement from roommates and residence leaders, it becomes easier for the students living on-campus to become integrated within the new community through social situations, which eased their transition and incorporation within the university (Wardley & Belanger, 2013). Moreover, Gray et al.

(2013) found a positive association between on-campus residence and bonding social capital.

Huesman et al. (2009) report similar findings, commenting that living off-campus reduced the expected likelihood of success by 6%. They claim that living in residence halls in the first semester is positively related to future academic success and, in addition, non-resident students are less likely to be successful than their in-state counterparts (i.e., students who are from a different state in the USA have a lesser chance of success, supporting the belief that proximity to the university influences integration).

In addition, Wardley and Belanger (2013) also found that students without easy access to their prior community (ranges between 51 and 500+km) made more progress in adapting to university than those students with easy access (5–50 km) to their permanent home. This finding supports the importance of separation in the transition process. These students had severed contact with their previous networks, so there was little opportunity to experience conflicting priorities (Wardley & Belanger, 2013). For some students, over attachment to social contacts at home can lead to withdrawal from university. Their data suggest that students who lived off-campus within an easy commute to their permanent residence appeared to have the most difficulty with transitioning to university. These findings support those of Tinto (1993) that separation must take place before integration into a new group can be successful. Wardley and Belanger (2013) also report that off-campus students stated that their living arrangements restricted their opportunities to meet other students in extracurricular situations. These students were not on-campus enough to be included in after-class social interactions, even if they did start to make connections with classmates. There was a tendency for them to only attend classes and then return home.

Students who live off-campus and within an easy commute to their previous community struggle more with their transition to university. The way for off-campus students to overcome these limitations could include becoming involved in extracurricular activities, which could create social interactions similar to on-campus living.

Wardley and Belanger (2013) suggest that the best combination to improve the transition to university appeared to be living on-campus without easy access to prior communities. This combination represented the most progress towards not only an

easier transition to university but also becoming incorporated within the university. For these students, their environment helped to impact their behaviour and ability to adapt. With more ready contact with peers and fewer opposing priorities from prior networks and communities, they were free to embrace the university and its social systems (Wardley & Belanger, 2013).

A South African study by Nel et al. (2009) suggests that financially needy students generally prefer private accommodation at university in order to save money, but they often find it difficult to cope with the ensuing challenges (such as those related to transport and social integration). Residence accommodation, particularly in the first academic year, plays a major role in students' academic and social integration. This confirms studies by Pascarella and Terenzini (1991). In the South African education context, where there are still classifications in terms of population groups, cultural factors play a role in the transition process. When Black students from previously disadvantaged schools enter a mainly White, Afrikaans campus (such as Stellenbosch University) it could cause them to experience a culture shock – especially as far as accommodation at university residences is concerned. The same applies to any student who enters a university with a dominant culture which is different from his/her own (Nel, et al., 2009), supporting research by Rendon (1994), who is renowned for research related to race issues within higher education.

Furthermore, according to Bradbury and Mather (2009), students' living arrangements, on- and off-campus, has a major effect on their sense of belonging. In this study, participants living in campus housing enjoyed the apartment style layout, which facilitated the development of new friendships. These students also revelled in the freedom to live on their own, be responsible for only themselves, and to develop and follow their own schedule. They developed confidence in their "abilities to manage conflict, live away from home, make new friends, and meet the rigo[u]rs of university life" (Bradbury & Mather, 2009, p.271).

In contrast to the previous studies, Burks and Barrett (2009) claim that students who live off-campus have higher levels of interaction with academic staff and are more likely to persist to the next year of study. The finding, associated with first-year primary place of residence, appears to be an anomaly when compared to the existing research. Existing literature shows the opposite, in that living on-campus is significant with persistence (Chickering, 1993; Pascarella & Terenzini, 1991). Two possible explanations for this anomaly stem from the limitations of the survey concerning the

specific living arrangements of those living off-campus (with or without parents) and that age of participant was not included from the survey.

Taking all of the above into account, it would be safe to say, therefore, that students' accommodation arrangements have an influence on their social integration and on their persistence and academic success.

In summary, the review demonstrates that multiple factors have a positive influence on social integration and that these factors themselves are multi-faceted. The above section concludes the description of the factors contributing to social integration. The outcomes of social integration are considered below.

5.3.2.2. The outcomes of social integration. The weighting of the emerging themes for the outcomes of social integration is provided in Table 6.

Table 6

Weighting of Themes for the Outcomes of Social Integration

Theme	Weighting
Persistence	11
Retention	7
Academic success	7
No effect	4

Studies in the review demonstrate that the main outcomes of social integration (as for academic integration) are student retention and persistence. A small minority of studies in this review found that there was no effect. It has also become apparent that there is rarely only one factor involved in a student's decision to either stay or leave higher education before graduating. Withdrawing from university is a process which occurs over time.

The positive outcomes for social integration are consistent with Tinto's (1993) theoretical formulations. For example, Braxton et al. (2008) found a positive relationship between social integration and a student's subsequent level of institutional commitment and a positive relationship between a student's subsequent level of institutional commitment and their likelihood of persistence. In addition, a student's

level of institutional commitment has a positive influence on his or social integration, and this social integration in turn has a positive influence on the student's persistence.

Some further examples of the review findings for the effects of social integration are now presented.

Severiens and Schmidt (2009) found that formal social integration affects study progress, which is in line with many studies that have shown that social integration is an important predictor of study success. In a similar vein, Gray et al. (2013) propose that a student's perceived level of social adjustment, together with his or her academic success in higher education, and on-campus residence, positively predicts re-enrolment (retention). Academic success is a by-product of social (and academic) integration; therefore, social integration positively influences re-enrolment.

Hausmann et al. (2009), on the other hand, emphasise the effects of sense of belonging on social integration, and in turn, of social integration on persistence. They conclude that students who are more integrated into the university community, and who are thus likely to have an enhanced sense of belonging, are more likely to remain enrolled. This study also found evidence to support the inclusion of students' subjective sense of belonging as a unique factor in a complex model of student persistence. They found that sense of belonging had a direct, positive effect on students' institutional commitment, and significant indirect effects on intentions to persist and actual persistence. These findings are consistent with considerable existing evidence that factors presumed to be similar or related to students' subjective sense of belonging are related to positive educational outcomes such as academic performance, satisfaction, commitment, and persistence.

However, in contrast to Tinto's (1993) previous research, which found that social integration had a direct effect on institutional commitment, Hausmann et al.'s (2009) study found that social integration actually has only an indirect effect on institutional commitment through its impact on sense of belonging. They also found indirect effects of sense of belonging on intentions to persist and actual persistence, via institutional commitment (Hausmann, et al., 2009).

As indicated in the previous section, factors like interaction with peers, participation in Learning Communities, peer mentoring, living on-campus, participation in extracurricular (now preferably called co-curricular) activities, and involvement, influence social integration in a positive way. Social integration, in turn, positively influences retention, persistence and eventually graduation. In accordance with Tinto

(1993), many of the studies in the review show the direct relation between these factors and retention and persistence. The assumption here is that the factors affect retention and persistence through social integration.

For example, Collings et al. (2014) demonstrate that peer mentoring has slightly lower levels of dropout in general, while in Fowler and Zimitat's (2008) study, students spoke of the "richness of learning" that results from interactions with others who have a diversity of views in their LC (p.44), and Huesman et al. (2009) found that student use of campus recreation facilities to have a significant influence on both predicted probability of first-year retention and "predicted probability of 5-year graduation" (p.59).

Similar to other LC research, for example, by Fowler and Zimitat (2008), Jehangir (2009) and Waldron and Yungbluth (2007) found that the academic performance and retention numbers experienced by students in the LC conditions may be a by-product of improved relational communication (the latter is an important predictor of social integration). Likewise, Settle (2011) has shown that social-capital variables, particularly student integration to the collegiate environment, are strongly associated with persistence of first-generation students. In particular, contact between students and academic staff members outside of the classroom environment is critical to the persistence of these students.

In conclusion, social integration has positive educational outcomes for first-year students. A combination and orchestrated interaction of all of the themes frame and shape the student experience.

A summary of the findings in the study is now presented.

5.4. Summary of Findings

In general, the findings demonstrate that there are several factors that contribute to the academic and social integration of first-year students into higher education and that the outcomes for academic and social integration are similar.

5.4.1. Factors contributing to academic and social integration. The study reveals that some factors contributing to academic and social integration are, in fact, common to both types of integration. The following common factors were found: interaction with staff, interaction with peers, engagement or involvement, the centrality of the classroom and the curriculum, and sense of belonging or identity. Several of the themes or factors are closely intertwined and connected to one another. In addition, some of the sub-themes within the wider themes, are similar.

Support from academic staff and university friendship networks are both strong influences on academic and social integration. While interaction with academic staff emerges as the dominant influence on students' academic integration, relations with their peers is by far the most important feature of their social integration. It becomes clear that academic staff play a very powerful and commanding role both inside and outside of the classroom. Several studies show that the availability and helpfulness of staff produce positive outcomes for students (Fergy, et al., 2011; Fowler & Zimitat, 2008; Hixenbaugh, et al., 2012; Zaitseva, et al., 2013). In addition, when students feel that staff care about them and that they are committed to teaching them and supporting them, they feel motivated and are more likely to persist. Validation from staff was also found to be central to students' sense of belonging and identity (Jehangir, 2009), which also motivates them and in turn eases their integration, and promotes academic success.

Furthermore, academic staff attributes, the kind of classroom they create, the teaching methodologies they employ as well as their teaching expertise, are closely linked to the importance of the centrality of the classroom and the curriculum, and to academic engagement. These factors are all of special significance in students' academic and social integration (Bradbury & Mather, 2009; Wilcox, et al., 2005). For example, when students are actively engaged and involved inside the classroom and when they are intellectually challenged, profound and meaningful learning takes place, resulting in increased confidence, self-efficacy and competence within students, which in turn strengthens their motivation, and all in all, contributes to their integration (Braxton, et al., 2008; Bradbury & Mather, 2009; Brooman & Darwent, 2014; Clark, et al., 2014; Fergy, et al., 2011; Gomez-Arizaga & Conejeros-Solar, 2013; Wood, et al., 2015). In addition, students' sense of motivation is also influenced by factors like goal commitment and institutional commitment (Bitzer, 2009; Clark, et al., 2014).

From this it is clear, as mentioned earlier, that the themes of staff and peer interaction, classroom and curriculum centrality, academic engagement, motivation, self-efficacy and sense of belonging are closely interlinked. They have a mutual influence on one another.

The review also demonstrates the value of a few other factors as determinants of integration. For example, preparatory education or prior academic achievement remains a highly significant element in first-year academic integration (Arnold, 2013; Bass, 2011; Bitzer, 2009; Gomez-Arizaga & Conejeros-Solar, 2013; Hixenbaugh, et al., 2012; Mamiseishvili, 2012b; Nel, et al., 2009; Willcoxson, 2010).

In addition, first-generation students have a harder time adjusting to university because of a lack of role models and experience of knowing what to expect (Hixenbaugh, et al., 2012; Jehangir, 2009; Nel, et al., 2009; Pittman & Richmond, 2007). Students who are the first in the family to enter higher education derive greater benefit from academic engagement and interaction with staff than their peers whose parents have some form of higher education (Bradbury & Mather, 2009).

Moreover, involvement or engagement in both classroom and out-of-classroom activities promote social integration (Kane, et al., 2014; Pan, et al., 2008; Zaitseva, et al., 2013). The wider student experience appears to be a significant factor in integration in general.

Social integration is purported to be more important than academic integration at the beginning when first-year students are trying to find their way in the new environment and trying to establish their new identity (Allen-Collinson & Brown, 2012; Hughes & Smail, 2015; Wilcox, et al., 2005). Peers can help them adapt with greater ease into their new, and often foreign, social contexts in higher education.

It is noteworthy that sense of belonging emerges as a strong indicator for successful social integration and hence has a powerful influence on student retention (Hausmann, et al., 2009; Jehangir, 2009). The need to fit in with the campus culture is a key factor for new students. Related to students' sense of belonging, is the issue of establishing an identity within their new environment. Expressing identity is of particular importance for first-year, first-generation students, many of whom seek to hide rather than reveal their multiple identities in an effort to fit into the picture of a typical university student (Jehangir, 2009).

Another emerging theme is that of student accommodation, which is closely linked to financial issues of affordability, and student involvement on-campus. Living

in campus housing facilitates the development of new friendships and greater involvement in co-curricular activities of the university, therefore, expediting both social and academic integration (Bradbury & Mather, 2009; Brooman & Darwent, 2014).

The value of Learning Communities and the important role played by the institution in both academic and social integration appear as sub-themes in many of the main themes (Brooman & Darwent, 2014; Kane, et al., 2014; Hausmann, et al., 2009; Jehangir, 2009; Severiens & Schmidt, 2009; Waldron & Yungbluth, 2007; Wilcox, et al., 2005). Learning Communities provide an ideal platform for staff-student and student-student interaction and collaboration, and hence valuable opportunities for student academic, personal and social development. The seriousness with which an institution takes student success is evident in the many facets of its organisation, mainly through the nature of the support it offers to students, but also, importantly, through the efficiency of its administration.

Lastly, it has become clear that academic and social integration are almost inextricable from each other and that there is a strong connection between the two for student retention, persistence and success.

5.4.2. Outcomes of academic and social integration. The broad outcomes of academic and social integration are student retention, persistence and success. These general outcomes include adjustment to higher education culture and demands, self-responsibility for learning, academic performance and achievement, independent thought, higher order intellectual functions, and ultimately, graduation. All of these are seen as medium and long term outcomes. However, the immediate goals of integration for first-year students are persevering with their studies, re-enrolment the following year and having the resolve to continue with their education (student retention and persistence).

5.5. Concluding Remarks

In this chapter, the steps of the systematic review were applied and the characteristics of the final sample were provided. In order to answer the research question, findings of the reviewed studies (the final sample) were provided according to various themes.

Exploring the factors influencing, as well as the outcomes of, academic and social integration, allows for a more in-depth understanding of how first-year students

transition into higher education, and how higher education should respond to the needs of students to improve student success. Findings from this study could be used to determine effective strategies and interventions aimed at improving student retention and persistence rates for first-year students in particular, and also for all students in general. These recommendations are presented in the following chapter.

Chapter 6

Conclusion and Recommendations

6.1. Overview of Chapter

A thematic analysis of the results of the study was presented in Chapter 5. Chapter 6 presents a synoptic overview of the study. The conclusion is drawn and reflections are offered. The value of the study is presented and the recommendations emanating from the study are outlined. Lastly, the limitations of the study are discussed.

6.2. Conclusion and Reflections

This systematic review has yielded many themes that impact students' commitment to their goals and to the institution, which in turn contribute to positive institutional experiences, and which lead to positive academic and social integration. Academic and social integration in turn strengthen goal and institutional commitment, resulting in student retention, persistence and, ultimately, in graduation. While academic integration is closely associated with students' goal commitment, social integration is more closely associated with their institutional commitment. The findings are therefore in accordance with Tinto's (1993) theory of student integration and also with findings by other past research.

Reflecting on the study, it is worth noting that the final sample in the study is made up of a wide diversity of local and international studies: United States of America (USA), United Kingdom (UK), Australia, The Netherlands, Italy, Portugal, Chile and South Africa. This eclectic assortment and wide variety of studies from around the globe, in my opinion, certainly contributes to the strength of the review.

Interestingly, studies from the UK and Australia were the easiest to read: language was simple, not unnecessarily highbrow, obscure or difficult to read, and yet of good academic quality. The quality of the studies was not compromised in any way owing to the unpretentious use of language. I also found that the issues raised and discussed in the UK and Australian studies resonate especially well with concerns in the South African higher education context. It might be useful for South African higher education institutions to collaborate with some of these institutions for enhancing best

practice for teaching and learning issues, as well as for professional support disciplines. It was interesting to find, for example, that the University of Derby in the UK runs a similar peer mentoring orientation programme to the one I coordinate at NMMU.

I found the systematic review not an easy methodology to administer on this subject. Reading hundreds of articles and managing them in various stages is extremely time-consuming and labour intense. However, the process afforded me the opportunity to glean insights from the extensive amount of research on the topic, an intense undertaking one would not normally just easily conduct.

Lastly, in retrospect, I found, just like Tinto (2015) suggested, that it is perhaps artificial to separate academic and social integration. Their mutual influence on one another is evident from this review. The constructs are, in fact, inseparable and too interconnected to be divided for discussion, and I would recommend that for future research, they are not split.

The value of the study is considered below.

6.3. Value of the Study

While much effort has been placed on improving success rates for students, higher education nationally and internationally still struggles with retention and throughput rates (Rhodes & Neville, 2004; Sibanyoni & Pillay, 2014). Past research therefore acknowledges that a gap still exists. This review provides a response to this critical challenge facing higher education to increase student success rates by providing insights into the factors contributing to first-year academic and social integration, as well as into the outcomes for academic and social integration.

Since a systematic review of academic and social integration has never been conducted in South Africa, and a literature review shows only one other international study like this, this study offers ground-breaking methodology on the topic. The evidence gleaned in the study is gained after reviewing an exceptionally wide and comprehensive range of studies in the field. The findings of the study are extracted from the best research in the field. Through this process, the study hopefully provides greater insight into understanding the value of the academic and social integration of first-year students in the higher education context and its contribution to student retention, persistence and success. Findings from this review have generated themes that can be used to inform higher education policy makers and staff regarding the

challenges faced by students so that appropriate intervention strategies may be formulated and implemented.

The study contributes to existing theory by confirming that certain factors contribute to academic and social integration in higher education through goal and institutional commitment. In turn, academic and social integration strengthen goal and institutional commitment, which leads to student retention, persistence and success. This can be illustrated along a continuum, similar to Tinto's theory of student integration:

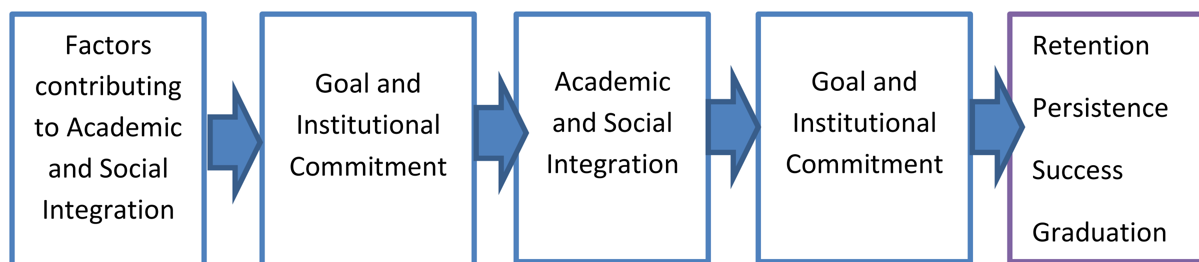

Figure 4. Continuum of the Process of Academic and Social Integration.

In addition, the study adds value to theory in that it confirms the critical importance of engagement espoused by Kuh (1991) and involvement advocated by Astin (1993), and strongly endorsed by Tinto (2015).

Based on the findings from the study, recommendations are now presented.

6.4. Recommendations

It is not enough to increase the recruitment of students without a concurrent emphasis on helping them to complete their chosen courses successfully.

Given the concerns over poor retention and given the critical importance of academic and social integration for student success, it has become imperative for institutions of higher learning to pay closer attention to the value of the factors that produce successful integration. The development and implementation of firm policy in this regard would be testimony to an institution's real commitment to student retention and persistence. As Tinto (2015) has observed, student success does not arrive by chance. It is rather the outcome of an "intentional, structured, and proactive set of strategies that are coherent and systematic in nature and carefully aligned to the same goal" (p.10). For a start, access with success requires increased funding from the

state, who, as Dr Lehohla from Statistics South Africa, earlier recommends, needs to make education a priority.

Below are some of the key recommendations for higher education emanating from this study.

6.4.1. First-Year Experience programmes. Under the mass education model, institutions worldwide have recognised the need to assist students in their transition to higher education. This recognition has led to policy implementation in many instances, for example, of First-Year Experience (FYE) programmes nationally and internationally. However, commitment to the programme and its proper implementation are crucial for the success of these programmes. For example, Baker (2012) suggests that this process should be offered to students in their transition to university life by "scaffolding" their academic engagement and social experience. An understanding of student development issues and the progression of student needs along the first-year continuum would be most helpful in the implementation of Baker's (2012) scaffolding process.

6.4.2. Classroom and curriculum centrality. Classroom and curriculum centrality, as shown in the review results, are significant contributors to academic and social integration, and in turn, academic success. This then is the juncture where academic and social integration can be of special significance in advancing student success in general, and in particular, in the African context. The nature of the curriculum, the kind of classroom teaching staff create, the teaching methodologies they employ as well as their teaching expertise, are all of special significance in students' academic integration and success (Bradbury & Mather, 2009; Wilcox, et al., 2005). It is here that access can perhaps be met with success.

Likewise, Bovill et al. (2011) point out that existing research clearly identifies the curriculum as the key driver for improving student engagement, and thereby student success. However, more importantly, Tinto (2015) argues that students' perception of the value and relevance of the curriculum also has an impact on whether a student will withdraw or not. These are important points to take into consideration in the light of the current #FeesMustFall movement call for a decolonised curriculum in the South African Higher Education context. We would do well to remember to design what Krause (2006) calls a "responsive curriculum" (p.7) to the African context in order

to advance our students' perception of the value and relevance of the curriculum, as Tinto (2015) puts it, and hopefully promote improved retention.

It is interesting to note that the humanising pedagogy approach to education in higher education, is not promoted solely in the South African context. It is clear from the review that it is, in fact, a philosophy encouraged in higher education around the world, since it advances a more humane approach to its students in response to the challenges of massification and widening diversity. A more benevolent, compassionate and kinder pedagogy is necessary for improved student retention and success in the post-secondary scenario of today.

For Krause (2006), a supported academic transition is central to the FYE. In the first year of university, students are confronted with "vast amounts of disciplinary knowledge and sources of information" and academics therefore "need to scaffold student learning" so as to assist students in adjusting to the university curriculum (pp.6-7). The key to a rewarding FYE, argues Krause, is a "responsive first-year curriculum, custom designed learning resources, and supportive approaches to learning and assessment" (Krause, 2006, p.7).

Furthermore, student engagement can be advanced by creating a learning environment that encourages peer collaboration and in which students participate actively and develop a sense of belonging. As such, curriculum design should "enhance interactive and social experiences for students" by providing them with "a wide range of opportunities to form alliances with other students" and teaching staff (Wilcox, et al., 2005, p.720).

Apart from increasing the amount of time academic staff devote to their students, adapting learning environments to students' needs, instead of the other way around, may also be a good way to improve levels of academic integration. This could be done, for example, by taking students' approaches to learning as a starting point when designing curricula and assessment methods, or, likewise, taking students' stages of intellectual development and patterns of reasoning into consideration in the design of curricula. Academic staff would certainly benefit from knowledge related to students' intellectual and social development.

In this regard, raising awareness among lecturing staff of the critical nature of classroom centrality with its multiple factors that enhance integration would be particularly helpful. Central to the classroom as the pivot of academic integration, is the importance of the lecturer as commanding role-player.

Last but not least, the value of swift and meaningful feedback to students encourages the development of confidence and competence within students.

6.4.3. Interaction with academic staff. Further to alerting lecturers to the value of the classroom experience for students, is sensitising them to the powerful nature of their role inside and outside the classroom in supporting students. The availability and expertise of teaching staff, and how they interact with their students, are leading factors in student integration.

The caring and nurturing nature of teaching staff is a reflection of an appreciation for the more progressive humanising pedagogy approach in higher education today and an approach that should be encouraged. The humanising philosophy is also closely connected to the current call from students in South Africa for decolonised education as mentioned above and introduced in Chapter 1. One element of a decolonised approach to the teaching and learning context, is the interpretation that, unlike colonial or Eurocentric education with its punitive, tough and unforgiving stance towards students, a more humane, Afrocentric approach, with its emphasis on the person at the centre, is preferable. Such a philosophy is especially important in the South African higher education context where the majority of students are from disadvantaged schooling and socio-economic backgrounds where vast inequality still exists.

Teaching staff have the potential to encourage student confidence and competence. In this regard, Tinto (2015) remarks that universities need to be sensitive to the issue of student self-efficacy and the need for students to come to believe that they can succeed in their studies.

6.4.4. Interaction with peers. Given the critical importance of social integration for academic success, universities cannot assume that social integration will happen naturally or leave socialisation entirely to the Student Affairs department. It is imperative that higher education institutions pay attention to findings described in this study and intentionally put in place appropriate programmes to maximise opportunity for their students' social integration, which includes supportive relations with both students and staff, and both the formal and informal curriculum. Student involvement in co-curricular activities, being of equal importance to curricular ones, deserve to be

encouraged, for example, with the introduction of an official dual transcript, or Co-Curricular Record, like the one offered at NMMU.

Opportunities for interaction with their peers are also at best not left to chance, but organised within the classroom, especially at institutions where the majority of the students are commuter students. Special attention to living arrangements within university residences in terms of compatibility, should also be given due consideration.

6.4.5. Support programmes. Manik (2015a) advocates that in order to be able to provide timeous and appropriate academic support, institutions need to be able to identify at-risk students at an early stage, to track and monitor their progress, and to evaluate the effectiveness of support systems and programmes offered. This is true especially for those who enter higher education with gaps in their knowledge and with poor academic skills. However, strategies have to be shaped through the lens of each unique institution. This is also a view held by Tinto (1993), who warns that research findings are context-specific and that what works in one context may not necessarily be of benefit in another. This view is also echoed by Moodley and Singh (2015): the challenges of attrition and strategies of retention must be looked at contextually, where each challenge is evaluated based on an institution's individual circumstances. Well-planned and directed university interventions can have a positive impact on student transition experiences (Hughes, & Smail, 2015, p.477). To this end, Fergy et al. (2011) recommend that institutions get to know their students and what their needs are.

Highly recommended for inclusion in best practice is the development of a comprehensive set of guidelines for the implementation of Learning Communities in university settings, suggest Severiens and Schmidt (2009). Well-structured Learning Communities provide an important platform for amongst others, collaboration with staff and students, and its subsequent academic and social integration gains.

Finally, mentoring from older students who are near-peers provides significant benefits to new cohorts, producing higher levels of integration to university and lower levels of intention to leave university (Bass, 2011; Lathrop, et al., 2012). Collings et al. (2014) demonstrate that peer mentoring moderates the impact of "transitional stress on perceived social support, self-esteem and positive affect" (p.937). This type of peer mentoring should ideally be introduced in induction or orientation already. The How2@nmmu Buddy Programme provides this kind of peer mentoring support.

6.4.6. Induction programmes. Preparation is the key to how people experience a significant transition such as entering higher education. Study success for the first-year student might depend not only on personal characteristics and university characteristics, but also on the quality of the preparation. By its nature, secondary education has a significant share in the preparation for higher education. Though universities rightly argue that secondary school education is out of their control, they still need to deal with the students who arrive at their doors. Therefore, it is important for them to consider how best they can assist students in their transition to the demands of higher education.

One of the first things to consider is that the fit between secondary and higher education might be an important determinant of first-year achievement. Research has shown that insufficient preparation for – and thus a poor fit with – university, leads to adjustment and integration problems, resulting in early withdrawal (Yorke & Longden, 2008). Another important form of fit concerns guidance towards appropriate study choice; withdrawal may be a result of poor career and study programme choices.

A further implication might be whether students have formed the right expectations of university and how well they are oriented to education at the subsequent level. This brings us to the need to sensitise students to the requirements of university-level academic work and of experiencing heavy workloads. Bitzer (2009) recommends that it is important to check whether students might not confuse 'much to do' with levels of complexity. In the former case improved time management and organisation skills might solve the potential problem, while the latter case might require new learning strategies or even different module or programme choices for students.

All of the above resonates with the value of a good induction programme. Sensitising academic staff to the value of a good induction programme for first-year students is critical. Perhaps a good start is to raise awareness of the theoretical underpinnings of student transition, or what Kift, et al. (2010) aptly refer to as *transition pedagogy*. Also of importance is the need to clarify the contributing factors and outcomes of successful academic and social integration into university.

Elements of a good induction programme should include sufficient opportunities for students to check their programme fit, opportunities for formal and informal interaction with teaching staff and other staff, and interface with peers, preferably in small groups. Peer mentoring should preferably continue during the first semester, as advocated by Hughes and Smail (2015) and similar to the one currently offered at

NMMU. Encounters with staff who seem to care about their welfare and making friends on the course and in their residences at the very beginning, offer students the reassurance that they are not alone and build their confidence in being able to cope. Best practice also suggests that the content of the programme should cover some form of preparation on how to deal with the academic challenges and expectations of successful university studies.

NMMU has already put in place a first-year induction programme underpinned by the theoretical considerations espoused by Tinto (1993). The programme takes into account Tinto's (1993) constructs of academic and social integration, and considerations of student involvement (Astin,1993) and engagement (Kuh, 2008). The agenda covers the opportunities and best practice mentioned above: creating a welcoming environment which starts with an address by the vice-chancellor to both parents and new students; it then moves along a continuum to a meeting with the faculty in which the student is studying, with an address by the Dean of the Faculty, followed by opportunity to interface with the Head of Department, lecturers and faculty administrative staff. The programme continues the following week with first-year students being divided into small groups within their academic programme to be led through a transition programme by a *buddy* in the same programme. The buddies are near-peers who are mainly in their second or third year of study, and who are selected for and trained in this role. Further opportunities are provided for both formal and informal meetings with teaching staff. Many social and cultural interaction opportunities are provided for helping students to understand the value of involvement in co-curricular activities.

It also follows that as much thought and planning should go into the design of these processes as into the early introductions to the curriculum and the available support. Similarly, problems experienced by students should be swiftly addressed to avoid alienating the student from their new environment.

Furthermore, the successful transition of students into higher education is now generally regarded as a longer, more complex process than *induction*. This idea has received some criticism but has also been found to be beneficial in, for example, the case of institutions recognised as performing well in the retention of students from lower socio-economic groups (Yorke & Longden, 2008). It is also useful to define the terms so that induction ('first-contact' during week one) forms part of the overall

transition strategy, which is seen as the longer process of acclimatisation during the first year.

Establishing the early development of closer contact with a personal tutor, involvement of second and third years in *guidance* seminars, the use of a reflective diary and a summative reflective assessment of the transition period are examples of the value of including students much more actively in transition rather than treating them as passive receivers of information and paperwork (Brooman & Darwent, 2014).

When students arrive at university, they generally find that the expectations of them in terms of personal autonomy and foreign academic practices overwhelming, and they may spend the first few weeks of term in a daze, trying to adjust to a very alien environment (Bass, 2011, p.51). This is where mentoring plays an important role.

6.4.7. Academic success programmes or interventions. Pan et al. (2008) assert that participation in more than one academic success programme greatly helps students both in retention and increase of their academic performance. Moreover, Turner and Thompson (2014) view the development of effective study skills as a challenge. The development of these academic skills affects a student's self-confidence, self-efficacy, attitude toward education and academic persistence.

In terms of the under-preparedness of students, it becomes imperative that higher education institutions ought to provide suitable academic support to first-year students. Bass (2011) suggests that if the development of academic practices and the acquisition of discipline specific language are integrated within the discipline specific subjects themselves, then significant learning occurs.

Nel et al. (2009) argue that the university can be involved by utilising focused intervention programmes. However, it is rarely possible in a relatively short time to make up for lost ground in subjects (e.g. Mathematics and Physical Science) through such programmes, as these backlogs accumulate over many years. Moreover, such interventions are labour intensive and costly. Higher education institutions should, therefore, focus on teacher-training in schools in order to reach and support more students.

Given the critical importance of social integration for academic success, universities cannot assume that social integration will happen naturally or leave socialisation entirely to the Students' Union or Student Affairs; it is imperative that higher education institutions pay attention to findings such as these described here,

and intentionally put in place appropriate programmes to maximise opportunity for their students' social integration.

Furthermore, the role of the institution in enhancing academic and social integration now features more prominently in the literature as opposed to the past. Emerging as the new discourse is the question of how institutions may improve student outcomes, replacing the previously dominant discourse which placed the onus on the student to fit into the institution. The new discourse challenges this view, and argues that institutions should adapt to students and cater for their needs, in order to stimulate outcomes.

6.4.8. The role of administrators. The findings of the study also suggest that universities must carefully consider all of their actions and interactions within the first few weeks of term as potentially having a significant impact on the transition experiences of their students. Small administrative and organisational oversights and problems can apparently have a weighty negative impact. It, therefore, follows that practical, procedural processes and arrangements should be designed around the transition needs of students as much as the administrative needs of the institution. Student success is everybody's business, from the university senate, university council, chancellor, vice-chancellor, to the cleaning staff. The overarching aim for each higher education staff member, regardless of employment status, is student success.

6.4.9. The use of theory. Tinto (2015) recommends that educators use more than one theory on which to base their work in higher education. No *one* theory is likely to explain the development of every aspect of any *one* student. Integration concepts from several theories can often provide a more comprehensive understanding of student development**.**

Lastly, it is hoped that the implementation of some or all of these recommendations could in some way provide a response to some of the South African higher education issues emanating from the #FeesMustFall uprising described in Chapter 1 of this study. Even though dealing with ever widening access is a challenge, the imperative is that access is matched with success.

Recommendations for future research are considered in the next section.

6.5. Recommendations for Future Research

As mentioned several times in the study, despite extensive literature on student retention and persistence, success rates in higher education remain a critical concern (Fowler & Zimitat, 2008; Wilson-Strydom, 2011). Tinto (1975) postulates that a large part of the problem is that much remains unknown about the *nature* of the dropout process. In large measure, the failure of past research to delineate more clearly the "multiple characteristics of dropout" can be traced to two major shortcomings, namely, "inadequate attention given to questions of definition and to the development of theoretical models that seek to explain, not simply to describe" (p.89) the processes that bring individuals to leave institutions of higher education.

To improve this *status quo*, Tinto (2015) recommends that more qualitative studies be conducted, in the hope of improving research with regard to academic and social integration, which have been found to be critical determinants of student retention, persistence and success. Qualitative research offers evidence that is more rich in quality than quantitative research, and hence might offer deeper insight into the phenomena of academic and social integration as it pertains to student success.

It might also be more useful for future research on academic and social integration to delineate the study by restricting it to an investigation of only one of the factors contributing to either academic integration or social integration, or contributing to both. The reason for this is that I found the research on the topic to be vast and extremely wide, making it difficult to manage in a study of all the factors. Furthermore, because academic and social integration are so closely inter-related, it might be less artificial not to separate the constructs in any investigation.

The limitations of the study are now presented.

6.6. Limitations of this Study

The following limitations were identified.

- Only the electronic databases subscribed to by the Nelson Mandela Metropolitan University were used. This is a limitation since relevant data may have been missed. Other universities might have more or different databases.
- Another limitation of this review is that only a limited number of studies found in the literature search, were based in South Africa. Given South Africa's

unique cultural context, the findings from mainly Western countries may have limited generalisability to the South African higher education context. However, the systematic manner in which the review was carried out did not allow for preference to be awarded to some studies over others.

- A further limitation was that it was not possible to obtain theses and dissertations from other countries. This is noted in the Inclusion/Exclusion Table in Appendix B.
- Likewise, full texts for some articles were also not available. Where applicable, this is noted in the Inclusion/Exclusion Table in Appendix B.
- Another limitation was related to language: the study was limited to the exclusive use of English articles.
- Lastly, there is always the limitation of human error creeping in. In an attempt to limit the possibility of error, great care was taken at each stage of the review to check and double check the review process. Expert librarians were consulted before the start of the review, and during the critical appraisal stage, an external consultant was used to check the quality of studies that were found doubtful. I conducted this research as honestly and rigorously as possible to provide a summary of the best-quality evidence on the topic.

6.6. Concluding Remarks

An overview of the study was provided in this chapter, presenting the conclusion and reflections on the study. The value of the study was considered and recommendations emanating from the study were discussed. The limitations of the study were also provided.

In providing a synthesis of the literature on the academic and social integration of first-year students in higher education, it is my hope that the study offers a good overall view of the common themes in some of the best research on the topic, and provides some answers with regard to how higher education can improve student retention, persistence and success.

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Appendix A

Inclusion/Exclusion

Reference List of Articles

Ref No	Articles Retrieved for Inclusion/Exclusion
1	Adamo, G. (2009). Students' intent to persist: An analysis of a selected post-secondary for-profit institution. (69), ProQuest Information & Learning, US. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2009-99070-408&site=ehost-live&scope=site Available from EBSCOhost psyh database.
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15	Banks, J. (2010). Female nontraditional students in higher education. ProQuest LLC. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED522647&site=ehost-live&scope=site
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171	Townsend, B. K., & Wilson, K. B. (2008). The academic and social integration of persisting community college transfer students. *Journal of College Student Retention: Research, Theory and Practice, 10*(4), 405-423. doi: 10.2190/CS.10.4.a
172	Townsend, B. K., & Wilson, K. B. (2009). The academic and social integration of persisting community college transfer students. *Journal of College Student Retention: Research, Theory and Practice, 10*(4), 405-423. doi: 10.2190/CS.10.4.a
173	Turner, P., & Thompson, E. (2014). College retention initiatives meeting the needs of millennial freshman students. *College Student Journal, 48*(1), 94-104.

174	Tyson, W. (2011). Modeling Engineering degree attainment using high school and college Physics and Calculus course-taking and achievement. *Journal of Engineering Education, 100*(4), 760-777.
175	Utter, M., & DeAngelo, L. (2015). Lateral transfer students: The role of housing in social integration and transition. *Journal of College and University Student Housing, 42*(1), 178-193.
176	Van de Poel, K., & Gasiorek, J. (2012). Academic acculturation: The case of writing in an EFL teaching and learning environment. *Journal for Language Teaching*, *46*(2):58-72. http://reference.sabinet.co.za/webx/access/electronic_journals/langt/langt_v46_n2_a5.pdf
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179	Van Zyl, A., Gravett, S., & De Bruin, G. P. (2012). To what extent do pre-entry attributes predict first year student academic performance in the South African context? *South African Journal of Higher Education, 26*(5), 1095-1111. http://reference.sabinet.co.za/webx/access/electronic_journals/high/high_v26_n5_a16.pdf
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184	Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science, 331*(6023), 1447-1451. doi: 10.1126/science.1198364
185	Wang, X. (2013). Baccalaureate expectations of community college students: Socio-demographic, motivational, and contextual influences. *Teachers College Record, 115*(4).

186	Wardley, L., & Belanger, C. (2013). Rites of passage: Does adaptation to university mean severing connections? *Tertiary Education and Management, 19* (1), 32-51.
187	Wawrzynski, M. R., & Jessup-Anger, J. E. (2010). From expectations to experiences: Using a structural typology to understand first-year student outcomes in academically based Living-Learning Communities. *Journal of College Student Development, 51*(2), 201-217.
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189	Willcoxson, L. (2010). Factors affecting intention to leave in the first, second and third year of university studies: A semester-by-semester investigation. *Higher Education Research and Development, 29*(6), 623-639.
190	Winter, J., & Dismore, H. (2010). Investigating the experiences of foundation degree students progressing to an honours degree: an integrated approach. *Journal of Further and Higher Education, 34*(2), 253-270. doi: 10.1080/03098771003695502
191	Wood, J. L., Newman, C. B., & Harris, F., III. (2015). Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college. *Western Journal of Black Studies, 39* (1), 3-17.
192	Wright, L. L. (2010). Social, demographic, and institutional effects on African American graduation rates in U.S. colleges and universities. ProQuest LLC. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED520846&site=ehost-live&scope=site
193	Xueli, W. (2013). Baccalaureate expectations of community college students: Socio-demographic, motivational, and contextual influences. *Teachers College Record, 115*(4), 1-39.
194	Young, D. J. W. (2012). College satisfaction among students enrolled at religious four-year colleges: A longitudinal study. ProQuest LLC. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED548324&site=ehost-live&scope=site
195	Yu, T., & Richardson, J. C. (2015). An exploratory factor analysis and reliability analysis of the Student Online Learning Readiness (SOLR) instrument. *Online Learning, 19*(5), 120-141.
196	Zaitseva, E., Milsom, C., & Stewart, M. (2013). Connecting the dots: Using concept maps for interpreting student satisfaction. *Quality in Higher Education, 19*(2), 225-247.

Appendix B

Inclusion/Exclusion Criteria and List

Article Ref. No.	2005+	Population	Language	Type			Content		Action		
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	Reason
1	x	x	x							x	International dissertation; not available
2	x	x	x							x	International dissertation; not available
3	x	x	x							x	International dissertation; not available
4	x		x			x	x	x		x	Population not first-year undergraduate students
5	x	x	x							x	International dissertation; not available
6	x	x	x			x	x	x	x		
7	x	x	x		x					x	Content not specific to academic or social integration
8	x	x	x	x							No full text available
9	x	x	x							x	Content not specific to academic or social integration
10	x	x	x		x				x		
11	x	x	x		x					x	No full text available
12	x	x	x							x	No full text available
13	x	x	x							x	No full text available
14	x	x	x		x	x	x	x	x		
15	x	x	x							x	International Dissertation; not available
16	x	x	x							x	No full text available
17	x	x	x							x	No full text available
18	x	x	x							x	No full text available
19	x	x	x			x	x	x	x		
20	x	x	x							x	International dissertation; not available

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
21	x	X	x		x		x	x	x		
22	x	X	x							x	International dissertation; not available
23	x	X	x		x	x	x	x	x		
24	x	X	x			x	x	x	x		
25	x	X	x							x	International dissertation; not available
26	x	X	x		x			x	x		
27	x	X	x		x			x	x		
28	x	X	x		x			x	x		
29	x	X	x							x	International dissertation; not available
30	x	X	x							x	International dissertation; not available
31	x	X	x							x	No full text available
32	x	X	x			x	x		x		
33	x	X	x			x	x	x	x		
34	x		x		x		x	x		x	Majority population second-year students
35	x	X	x		x			x	x		
36	x	X	x							x	No full text available
37	x	x	x							x	International dissertation; not available
38	x	x	x							x	International dissertation; not available
39	x	x	x		x		x	x		x	Population mixed first-years and sophomores (second years)
40	x	x	x							x	International dissertation; not available

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
41	x	x	x							x	No full text available
42	x	x	x							x	International dissertation; not available
43	x	x	x							x	International dissertation; not available
44	x	x	x		x			x	x		
45	x	x	x			x		x	x		
46	x		x		x	x	x	x		x	Population not specific to first-year students
47	x	x	x		x		x	x	x		
48	x	x	x		x	x				x	Content not specific to academic or social integration
49	x	x	x		x		x	x		x	Population not specific to first-year students only.
50	x	x	x		x	x	x	x	x		
51	x	x	x							x	International dissertation; not available
52	x	x	x							x	International dissertation; not available
53	x	x	x							x	No full text available
54	x	x	x		x		x	x	x		
55	x	x	x		x			x		x	Insufficient/Insignificant content for this study.
56	x	x	x							x	International dissertation; not available
57	x	x	x							x	International dissertation; not available
58	x	x	x		x	x	x	x	x		
59	x	x	x							x	International dissertation; not available
60	x	x	x			x	x	x	x		

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
61	x	x	x			x	x	x	x		Content not specific to academic or social integration.
62	x	x	x		x			x	x		
63	x	x	x							x	No full text available
64	x	x	x							x	International dissertation; not available
65	x	x	x							x	No full text available
66	x	x	x							x	International dissertation; not available
67	x	x	x		x					x	Content not specific to academic or social integration
68	x	x	x		x			x	x		
69	x	x	x							x	International dissertation; not available
70	x	x	x							x	No full text available
71	x	x	x							x	International dissertation; not available
72	x	x	x							x	International dissertation; not available
73	x	x	x							x	No full text available
74	x	x	x		x		x	x	x		
75	x		x		x	x				x	Population and content not specific to academic or social integration
76	x	x	x			x				x	Content not specific to academic or social integration
77	x	x	x		x		x	x	x		
78	x	x	x			x	x	x	x		
79	x	x	x							x	International dissertation; not available
80	x		x		x		x	x		x	Population not specific to first-year cohort

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
81	x	x	x								No full text available
82	x	x	x			x		x	x		
83	x	x	x		x			x		x	Content not specific to academic or social integration.
84	x	x	x		x			x	x		
85	x	x	x							x	No full text available
86	x	x	x							x	International dissertation; not available
87	x	x	x							x	International dissertation; not available
88	x	x	x							x	International dissertation; not available
89	x	x	x							x	International dissertation; not available
90	x	x	x							x	International dissertation; not available
91	x	x	x								No full text available
92	x	x	x							x	International dissertation; not available
93	x	x	x			x				x	Content not specific to academic or social integration
94	x	x	x							x	No full text available
95	x	x	x							x	International dissertation; not available
96	x	x	x							x	International dissertation; not available
97	x		x				x	x		x	Content and population not specific to academic or social integration
98	x	x	x							x	International dissertation; not available
99	x	x	x		x		x	x			
100	x	x	x							x	No full text available

Article Ref. No.	2005+	Population	Language	Type			Content		Action		
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	Reason
101	x	x	x		x	x		x	x		
102	x	x	x		x		x	x	x		
103	x	x	x							x	No full text available
104	x	x	x							x	No full text available
105	x		x							x	Population not first-year students
106	x	x	x							x	No full text available
107	x	x	x		x			x	x		
108	x	x	x							x	International dissertation; not available
109	x	x	x							x	No full text available
110	x	x	x							x	No full text available
111	x	x	x							x	International dissertation; not available
112	x	x	x		x		x	x	x		
113	x	x	x		x		x	x	x		
114	x	x	x		x		x	x	x		
115	x	x	x							x	No full text available
116	x	x	x							x	International dissertation; not available
117	x	x	x							x	International dissertation; not available
118	x	x	x		x			x	x		
119	x	x	x							x	International dissertation; not available
120	x		x			x	x			x	Population not first-year students; topic inappropriate for this study

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
121	x	x	x							x	International dissertation; not available
122	x	x	x							x	International dissertation; not available
123	x	x	x		x			x		x	Content not specific to topic
124	x	x	x							x	International dissertation; not available
125	x	x	x							x	International dissertation; not available
126	x	x	x								No full text available
127	x	x	x								No full text available
128	x	x	x								No full text available
129	x	x	x		x	x	x			x	Content not related to topic of this study
130	x	x	x							x	International dissertation; not available
131	x	x	x		x	x	x	x	x		
132	x	x	x							x	No full text available
133	x	x	x			x	x	x		x	Content not sufficient evidence for this study.
134	x	x	x							x	No full text available
135	x	x	x		x		x			x	Population consists of only low performance students
136	x	x	x							x	No full text available
137	x	x	x							x	No full text available
138	x	x	x		x			x	x		
139	x	x	x	x						x	International dissertation; not available
140	x	x	x							x	International dissertation; not available

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
141	x	x	x		x		x	x	x		
142	x	x	x							x	International dissertation; not available
143	x	x	x							x	International dissertation; not available
144	x	x	x							x	International dissertation; not available
145	x	x	x							x	Content not suitable to this study
146	x	x	x		x			x		x	Content not suitable to this study.
147	x	x	x							x	International dissertation; not available
148	x	x	x							x	International dissertation; not available
149	x	x	x							x	No full text available
150	x	x	x							x	No full text available
151	x	x	x							x	International dissertation; not available
152	x	x	x		x		x	x	x		
153	x	x	x		x		x	x	x		
154	x	x	x							x	No full text available
155	x	x	x		x		x	x	x		
156	x	x	x							x	International dissertation; not available
157	x	x	x							x	International dissertation; not available
158	x	x	x							x	International dissertation; not available
159	x	x	x							x	No full text available
160	x	x	x							x	International dissertation; not available

Article Ref. No.	2005+	Population	Language	Type			Content		Action		Reason
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	
161	x	x	x							x	International dissertation; not available
162	x	x	x							x	No full text available
163	x	x	x							x	No full text available
164	x	x	x							x	No full text available
165	x	x	x							x	International dissertation; not available
166	x	x	x							x	No full text available
167	x	x	x							x	International dissertation; not available
168	x		x		x	x		x		x	Year level of student population not specified
169	x	x	x							x	No full text available
170	x	x	x							x	No full text available
171	x	x	x							x	Duplicate
172	x	x	x							x	Duplicate
173	x	x	x			x	x	x	x		
174	x	x	x		x		x			x	Population not restricted to first-years; Content not applicable
175	x	x	x			x		x		x	Population not restricted to first-year students
176	x	x	x		x		x	x		x	Content not suitable to this study.
177	x		x		x	x				x	Population not restricted to first-year students
178	x		x		x					x	Student population not specified; Content not suitable for this study
179	x	x	x		x		x			x	Content not suitable to this study.
180	x	x	x							x	International dissertation; not available

Article Ref. No.	2005+	Population	Language	Type			Content		Action		
		First-year undergrad students	English	Systematic Review	Quantitative	Qualitative	Academic Integration	Social Integration	Include	Exclude	Reason
181	x	x	x							x	International dissertation; not available
182	x	x	x		x	x	x	x	x		
183	x	x	x							x	International dissertation; not available
184	x	x	x								No full text available
185	x	x	x								No full text available
186	x	x	x		x				x		
187	x	x	x							x	No full text available
188	x	x	x			x		x	x		
189	x	x	x		x			x	x		
190	x		x			x	x			x	Population not first-year students
191	x	x	x		x		x		x		
192	x	x	x							x	International dissertation; not available
193	x	x	x							x	No full text available
194	x	x	x							x	No full text available
195	x	x	x		x					x	Online learning. Content not applicable to this study
196	x	x	x			x	x	x	x		

Appendix C

Critical Appraisal of Included Studies

SK = Reviewer

NN = Independent Reviewer

Red colour indicates appraisal by NN

The selection for this sample is based on the following criteria:

- 3 studies that were accepted outright
- 2 studies that were doubtful
- 1 that was not accepted

Data Appraisal Sheet

Title	The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education.
Author(s)	Collings, R., Swanson, V., & Watkins, R.
Publishing Details	*Higher Education: The International Journal of Higher Education and Educational Planning, 68*(6), 927-942. (2014).
Decision	**Accepted**

Criteria	**Yes**	**No**	**Comment**
1. Was the purpose / research question clearly stated?	x		
2. Was relevant background literature reviewed?	x		
3. Was the study design appropriate for the research question?	x		
4. Was the sampling method appropriate?	x		
5. Was the data collection method described clearly and completely?	x		
6. Was the process of data analysis described adequately?	x		
7. Was there evidence of trustworthiness?	x		
8. Were the conclusions appropriate?	x		

Data Appraisal Sheet

Title	Students' transition from school to university: Possibilities for a pre-university intervention.		
Author(s)	Nel, C., Troskie-de Bruin, C., & Bitzer, E.		
Publishing Details	*South African Journal of Higher Education*, *23*(5), 974-991. (2009).		
Decision	**Accepted**		
Criteria	**Yes**	**No**	**Comment**
1. Was the purpose / research question clearly stated?	x		
2. Was relevant background literature reviewed?	x		
3. Was the study design appropriate for the research question?	x		Mixed method: quantitative followed by qualitative
4. Was the sampling method appropriate?	x		213 Black Grade 12 learners from 70 schools in the Western Cape who attained an aggregate of 70 per cent and higher at the end of Grade 11
5. Was the data collection method described clearly and completely?	x		
6. Was the process of data analysis described adequately?	x		
7. Was there evidence of trustworthiness?	x		
8. Were the conclusions appropriate?	x		

Data Appraisal Sheet

Title	Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college.
Author(s)	Wood, J. L., Newman, C. B., & Harris, F. III.
Publishing Details	*Western Journal of Black Studies, 39*(1), 3-17. (2015).
Decision	**Accepted**

Criteria	Yes	No	Comment
1. Was the purpose / research question clearly stated?	x		This study sought to determine whether self-efficacy had an effect on integration for Black male students in the community college.
2. Was relevant background literature reviewed?	x		
3. Was the study design appropriate for the research question?	x		Quantitative; data taken from national survey
4. Was the sampling method appropriate?	x		First-year Black male students in the community college. Sample of 212,703 students
5. Was the data collection method described clearly and completely?	x		Educational Longitudinal Study (referred to as ELS 2006/2012).
6. Was the process of data analysis described adequately?	x		
7. Was there evidence of trustworthiness?	x		
8. Were the conclusions appropriate?	x		Findings corroborate findings from other studies that faculty interaction plays a role in academic interaction (see Kamphost et al, 2015; Mamiseishvilli, 2012a and Settle, 2011). This indicates that faculty interaction is an important factor regardless of biographical variables (i.e. gender, race, nationality or SES)

Data Appraisal Sheet

Title	I'm a Reddie and a Christian! Identity negotiations amongst first-year university students.
Author(s)	**Allen-Collinson, J., & Brown, R.**
Publishing Details	*Studies in Higher Education*, *37*(4), 497-511. (2012).
Decision	SK = No; NN = Yes**. Final: Accepted**

Criteria	Yes	No	Comment
1. Was the purpose / research question clearly stated? **Changed to Yes.**	x x	x	This article explores issues of identity construction amongst a group of first-year undergraduate students based at a UK university, who self-identify as committed Christians
2. Was relevant background literature reviewed?	x x		
3. Was the study design appropriate for the research question?		x x	No clear research question
4. Was the sampling method appropriate?		x x	5 interviewees - purposive or 'criterion-based selection'
5. Was the data collection method described clearly and completely?		x x	
6. Was the process of data analysis described adequately?	x x		
7. Was there evidence of trustworthiness?		x x	
8. Were the conclusions appropriate?	x x		

Data Appraisal Sheet

<table>
<tr><td>Title</td><td colspan="3">Am I "that" talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level.</td></tr>
<tr><td>Author(s)</td><td colspan="3">Gomez-Arízaga, M. P., & Conejeros-Solar, M. L.</td></tr>
<tr><td>Publishing Details</td><td colspan="3">High Ability Studies, 24(2), 135-151. (2013).</td></tr>
<tr><td>Decision</td><td colspan="3">SK = Iffy, not sure of quality; NN = Yes, but wary of selected sample. Final: Accepted</td></tr>
<tr><td colspan="4"></td></tr>
<tr><th>Criteria</th><th>Yes</th><th>No</th><th>Comment</th></tr>
<tr><td>1. Was the purpose / research question clearly stated?</td><td>x
x</td><td></td><td>Compares the academic preparedness and adjustment, and social and emotional adjustment to university of gifted first-year students from regular schools vs vocational schools</td></tr>
<tr><td>2. Was relevant background literature reviewed?</td><td>x
x</td><td></td><td>But not in sufficient depth</td></tr>
<tr><td>3. Was the study design appropriate for the research question?</td><td>x
x</td><td></td><td></td></tr>
<tr><td>4. Was the sampling method appropriate?</td><td>x
x</td><td></td><td>Study focused on experiences of gifted students</td></tr>
<tr><td>5. Was the data collection method described clearly and completely?</td><td>x</td><td>x</td><td>Page 5 - 7</td></tr>
<tr><td>6. Was the process of data analysis described adequately?</td><td>x</td><td>x</td><td>Page 7</td></tr>
<tr><td>7. Was there evidence of trustworthiness?</td><td>x</td><td>x</td><td>Page 7 in data analysis section</td></tr>
<tr><td>8. Were the conclusions appropriate?</td><td>x</td><td>x</td><td>Not sure; could be a language issue
Findings show that vocational students face more challenges due to lack of college preparation from their schools and feeling intimidated by “upperclass” students</td></tr>
</table>

Yes, because the study highlights that students from disadvantaged or lower quality schools struggle the most to adjust to university. However, the study focuses on the experiences of gifted students (may not be representative of all first-year students).

Data Appraisal Sheet

Title	The emotional impact of learning in small groups: Highlighting the impact on student progression and retention.		
Author(s)	Cartney, P., & Rouse, A.		
Publishing Details	*Teaching in Higher Education*, *11*(1), 79-91. (2006).		
Decision .	SK = No; NN = No. **Final: Not accepted**		
Criteria	**Yes**	**No**	**Comment**
1. Was the purpose / research question clearly stated?	x x		
2. Was relevant background literature reviewed?	x x		
3. Was the study design appropriate for the research question?		x x	Not clearly stated
4. Was the sampling method appropriate?		x x	Not clearly stated
5. Was the data collection method described clearly and completely?	x	x	Not clearly stated
6. Was the process of data analysis described adequately?		x x	Not clearly stated
7. Was there evidence of trustworthiness?		x x	Not clearly stated
8. Were the conclusions appropriate?		x x	

Appendix D

Data Extraction from Final Sample

The sample selection of studies of data extraction is based on the same selection as the sample of studies of critical appraisals.

DATA EXTRACTION SHEET

<table>
<tr><td>TITLE</td><td colspan="2">The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education.</td></tr>
<tr><td>AUTHOR</td><td colspan="2">Collings, R., Swanson, V., & Watkins, R.</td></tr>
<tr><td>PUBLISHING DETAILS</td><td colspan="2">Higher Education: The International Journal of Higher Education and Educational Planning, 68(6), 927-942. (2014).</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>PURPOSE</td><td colspan="2">Hypotheses:
1. Mentored students will show significantly lower levels of stress and intention to leave university and also higher levels of university integration.
2. The impact of mentoring on intention to leave university will be mediated by integration.
3. Mentoring will moderate the impact of the transition to university on levels of social support, general affect and self-esteem. P930</td></tr>
<tr><td><u>POPULATION</u>
The sample consisted of students from within the Department of Psychology from two universities: one with a peer mentoring scheme (PM) and one without (NPM). Universities were matched in respect to student withdrawal numbers, type of university (glass plate/post 1960s), and being campus based. P930</td><td><u>SAMPLE SIZE</u>

229 participants at both universities completed the T1 questionnaire; NPM total = 112, PM total = 117. P931

(approximate figures per year for the PM = 175 and for the
NPM = 200) P930</td><td><u>QUALITATIVE/QUANTITATIVE/BOTH</u>

Quantitative. a controlled comparative methodology
A matched longitudinal comparison between two universities adopting a survey based methodology was adopted. Data collection points consisted of: 5 days (T1) and 10 weeks (T2) into university. Variables measured at both time points consisted of self-esteem and negative affect. Social support from home was measured at T1 and social support from
university (excluding mentors) was measured at T2. Additional measures taken at T2 were perceived stress, integration to university and intention to leave. P930</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3"></td></tr>
</table>

FINDINGS		
TOPIC	**CAUSES**	**CONSEQUENCES**
ACADEMIC INTEGRATION		
SOCIAL INTEGRATION	...there were three main findings: differences between universities in levels of integration to university were approaching significance and students who were from the NPM [non peer mentoring] University were four times more likely to want to leave university 10 weeks into their first semester. Secondly Tinto's (1975) construct of integration mediated the relationship between mentoring and retention in accordance with Jacobi's suggestion. Lastly, peer mentoring moderated the impact of transitional stress on perceived social support, self-esteem and positive affect; these outcomes are discussed greater detail below. P937 Although the universities were matched in as many ways as possible, including dropout statistics, the peer mentoring university had slightly lower levels of dropout in general. Matching was achieved using national statistics (HEFCE), however, these do not summarise departmental dropouts and it is possible that the differences in wanting to leave were due to natural differences in subject of study, availability of resources, other support offered by the universities and the composition of the student body rather than the presence of peer mentoring per se. It is also possible that a university with a mentoring scheme may have a more supportive environment in general. P939 Analysis indicated that significant moderating effects occurred for self-esteem: non-peer mentored individuals experienced decreases in self-esteem and yet peer mentored individuals indicated no changes. Peer mentors provide advice on aspects of the hidden curriculum and	

	information that could not be received through handbooks. They have had first-hand experience of the teaching methods of lecturers and the style of writing expected by the university (Phillips 2009). Lack of advice and information could lead to high levels of uncertainty and ambiguity amongst the student body which in turn could affect levels of self-esteem. P939 Although students from both universities experienced a decrease in perceived social support over time, for the peer mentored students this was not significant and at T2 the non-peer mentored had a significantly lower level of perceived support from university friends than their peer mentored counterparts. Extra support from a peer mentor may act as an integrating agent, introducing new students to one another and helping them feel more at ease within the university social environment. Peer mentored individuals showed a significant decrease in negative affect whereas the non-peer mentored individuals showed no changes in their levels of affect between T1 and T2. These three factors may interact with one another and the effects of social support and increasing self- esteem may lead to the decrease in negative affect. Little is known about the relationship between the three or the mechanisms in which peer mentoring acts upon these factors. P940 In conclusion, the benefits of a peer mentoring scheme appear to offer higher levels of integration to university and lower levels of intention to leave university. Integration also mediated the relationship between mentoring and retention supporting Jacobi's (1991) suggested framework of analysis. Furthermore, peer mentoring moderated the effects of the transition to university on levels of social support, positive affect and self-esteem. P941	

RECOMMENDATIONS	A limitation of this study, and the peer mentoring literature in general, is the variability of peer mentor commitment; so it is difficult to measure directly a mentee's experience of the scheme. The experience of peer mentoring and its effects are notoriously difficult to measure objectively and although there were few significant differences between the two universities with regards to college adaptation, and wellbeing it may be that the measurement of peer mentoring per se was not sensitive enough. Mentee engagement and satisfaction were not measured here as an overall view was sought. Additionally filtering the effects of a formal peer mentoring scheme and those of informal relationships with peers in upper years is complex. All these factors need to be considered in future research. P940 Additionally with advances in technology it is plausible that mentoring can become an outreach programme to incoming students before they register. P940 This research supports recommendations that peer mentoring schemes can be used as an effective retention strategy as well as providing a level of support to incoming first year students. P941
ADDED NOTES	Some of the literature argues that withdrawal decisions are consolidated within the first few critical days (Earwaker 1992; Tinto 1993) of university and this decision is mostly predicted by integration at both academic and social levels. Therefore, it appears that this could be an important area for a peer mentoring scheme to focus on. P938 It is argued that later year students have direct and recent experience of the circumstances which new students may be struggling with (Phillips 2009). Although the concept of mentoring is not new and has attracted research interest in organizational literature for decades the concept of formal peer mentoring specifically in higher education is relatively novel, and research into its potential benefits is limited (Crisp and Cruz 2009). In a review of the literature on all mentoring types, including faculty mentoring, within education, Jacobi (1991) highlighted several methodological flaws which are also evident in many of the peer mentoring evaluations. The greatest limitation is the lack of a universal mentoring definition and theoretical explanations for the effects of mentoring. Within the educational setting Jacobi (1991) proposes that mentoring should be studied in line with Tinto's (1975) model of student attrition, specifically relating to the constructs of social and academic integration P928 The evaluation of mentoring schemes is minimal and a review of the literature indicated a high proportion of papers focused on discussions of mentoring and/or establishing a scheme. P928 Tinto argues that integration to university at both the academic and social level is a key element in students' withdrawal decisions above and beyond an individual's personal attributes and background characteristics (e.g. pre entry ability, gender, social economic status) all of which have been identified as important variables in student withdrawal. P929 Peer mentors could potentially act as additional support in a new environment and thus buffer the effects of the transition. Therefore it is argued that peer mentoring can aid a potentially stressful transition to university by acting in two ways. Firstly peer mentors can help in the adaptation and integration into the new environment which will lead to higher retention rates

	(integration mediates the relationship between mentoring and intention to persist.) Secondly peer mentors may buffer the possible negative effects during the transition to higher education (the moderating effects of mentoring). P930

DATA EXTRACTION SHEET

TITLE	Students' transition from school to university: Possibilities for a pre-university intervention.	
AUTHOR	**Nel, C., Troskie-de Bruin, C., & Bitzer, E.**	
PUBLISHING DETAILS	*South African Journal of Higher Education*, *23*(5), 974-991. (2009).	
PURPOSE	We elaborate next on a study at one South African university to identify factors that play a role in the school-university transition phase. The study is used as a basis to establish an integrated framework to address pre-university interventions. P978 The aim was to investigate factors that play a role in the transition from school to university in the pre-university phase. P978	
POPULATION	**SAMPLE SIZE**	**QUALITATIVE/QUANTITATIVE/BOTH**
The study involved black1 newcomer first-year students who participated in a Stellenbosch University bursary project in their Grade 12 year at high school and took a bursary test.	213 black Grade 12 learners from 70 schools in the Western Cape who attained an aggregate of 70 per cent and higher at the end of Grade 11 and participated in a University bursary project in 2004.	A mixed-mode approach using questionnaires and interviews was utilised to generate quantitative and qualitative data. The data was generated in two phases: a questionnaire to prospective pre-university students followed by semi-structured interviews with the same group of students after enrolment. The interview schedule was based on a literature review and the quantitative results of the pre-university survey. P978 Second phase of inquiry Participants in this phase of the study consisted of a representative group of 17 first-year students from a group of 96 who participated in the bursary project and were enrolled as students in 2005. Semi-structured interviews on the transition process were conducted after participants received their first midyear examination results. The aim of the interviews was to generate data on students' perceptions of the factors that play a role in the transition from school to university once students have entered university. P979

FINDINGS		
TOPIC	**CAUSES**	**CONSEQUENCES**
ACADEMIC INTEGRATION	The underpreparedness of prospective university students, especially those from disadvantaged schools, is of great concern. The study has shown that, as a group, learners from these schools were academically less prepared for university than their peers from privileged schools. This coincides with various studies on retention and throughput rates in higher education (Tinto 1993; Mushishi 1997; Maxakato 1999; Foxcroft and Stumpf 2005; Kivilu 2006; Jones et al. 2008). Underpreparedness influences both the successful transition from school to university and throughput rates. It seems impossible for universities to catch up during the transitional phase or even in the first academic year with the backlogs, which are imbedded in the remaining inequalities of the South African school system. P984 Ineffective career guidance and unrealistic perceptions and expectations of top school achievers hamper the transitional process and contribute even further to underpreparedness for university studies. This confirms previous findings that inadequate career guidance can lead to unrealistic expectations with regard to specific study programmes and incorrect study choices (Maxakato 1999; Sedumedi 2002). Researchers such as Yorke (2002) and Lowe and Cook (2003) also emphasise the negative role that unrealistic perceptions and expectations have on academic success in higher education. P984 The academic skills required to adjust successfully to higher education should already be developed at school level (York 2002; Eiselen and Geyser 2003). It is therefore important for learners to master these skills at school. The university can be involved by utilising focused intervention programmes. However, it is rarely possible in a relatively short time to make up for lost ground in subjects (e.g.	

	Mathematics and Physical Science) through such programmes, as these backlogs accumulate over many years. Moreover, such interventions are labour intensive and costly. Higher education institutions should therefore focus on teacher training in order to reach and support more learners (Frick 2007a). P986 However, first-generation students rely just as much on the support from their parents as students whose parents completed their schooling or have a higher education qualification. Yet it seems as if first-generation students' parents do not always provide effective support (Thomas and Quinn 2007). Universities should therefore not only involve schools in the process of preparing prospective students, but parents as well. P986 It was found in this study that learners who wished to enter higher education perceived themselves to be ready and well prepared for university study. However, when they actually entered university they realised that their schools, especially previously disadvantaged schools, had left them unprepared or underprepared for university studies. They also had unrealistic expectations with regard to maintaining their school academic performance at university, specific subjects and career options, as well as the impact of sudden social freedom. When universities market themselves to prospective students they generally paint an attractive picture for prospective students (Yorke 1999). Institutions ought to provide a more realistic picture of the academic challenges that learners have to face in higher education. P987	
SOCIAL INTEGRATION	Learners in schools with a low socio-economic status (by implication first-generation learners) indicated that their teachers had assisted them in obtaining information on studies and bursaries, while second- or third-generation learners whose parents had a higher education	

<table>
<tr><td></td><td>experience and who were in schools with a higher
socioeconomic
status, identified their parents as their source of help.
P986

It seems that needy students generally prefer private accommodation at university in order to save money, but they often find it difficult to cope with the ensuing challenges (such as those related to transport and social integration). Residence accommodation, particularly in the first academic year, plays a major role in students' academic and social integration (Pascarella and Terenzini 1991). P987

Cultural factors that play a role in the transition process are mostly contextual (Richardson and Skinner 1992). In the South African school system there are still classifications in terms of population groups. When black learners from previously disadvantaged schools enter a mainly white, Afrikaans campus (such as Stellenbosch University) it could cause them to experience a culture shock – especially as far as accommodation in university residences is concerned. The same applies to any student who enters a university with a dominant culture which is different from his/ her own (Rendón 1992). If learners in the pre-university phase (and their parents) are introduced early to the university and the campus they could gain a realistic view of the university environment. In this regard universities should make use of role models in schools to break down negative perceptions and encourage learners to be receptive to cultural diversity.
P87</td><td></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>RECOMMENDATIONS</td><td colspan="2"></td></tr>
<tr><td>ADDED NOTES</td><td colspan="2">Besides academic and social adaptation, first-generation non-traditional students also face challenges of cultural adaptation (Pascarella and Terenzini 1991). In the South African context these are mostly black students. Serious concerns are being voiced about their high dropout rate at South African universities (Tait et al. 2002; Nair 2002). PP975-976</td></tr>
</table>

	In the context of the new South African school curriculum and the National Senior Certificate that produced the first intake in higher education in 2009, there is great uncertainty about first-year student quality at higher education institutions. It also remains doubtful whether a new school curriculum will solve current challenges, such as resource constraints, inadequately trained teachers, poor socio-economic conditions and a lack of parent involvement (Jenkins 1990; Van der Berg 2004; Phurutse 2006; Legotlo et al. 2002), in the school system. It has therefore become increasingly important to investigate, at school level, the factors that play a role in the transition from school to university and eventual academic success. P976 Although it is necessary for secondary schools and higher education institutions to co-operate in facilitating the process of transition (Chaffee 1992; Frick 2007a), it seems that higher education institutions do not make contact with schools early enough. If higher education institutions want to improve their retention rates, intensive interventions are necessary at the earliest possible phase – not only to identify potential students at risk, but also to prepare prospective students (Bitzer and Troskie-de Bruin 2004; Thomas and Quinn 2007). P976 Good academic preparation at school directly correlates with academic success at university (Frick 2007b). Furthermore, prospective students should develop the necessary skills at school level to cope with the possible challenges (Nel 2006). In this regard Foxcroft and Stumpf (2005, 18) maintain that higher education should be very clear about the entry-level competencies expected of entering students. They urge higher education institutions to develop partnerships with FET colleges and the school sector 'as to actively engage with them and the community with a view to developing learners who are prepared for further studies and the world of work'. P976 Various studies point at pre-university and partnership projects that aim at facilitating access and transition. Some programmes focus specifically on information dissemination on study opportunities whilst others aim at preparing students academically for the transition. Thomas and Quinn (2007) indicate the importance of using role models or student mentors in activities in schools or on campus whilst Frick (2007a) highlights the importance of open days. Padron (1992) emphasises the successes of pre-university programmes in, amongst others, study methods, computer skills, mathematics and language skills before the commencement of the first academic year. Chaffee (1992) confirms the value of a high school on campus to prepare especially first-generation students for higher education. P976 To effectively identify and target potential prospective students, especially those from low socio-economic backgrounds remains a challenge. There is no guarantee that an intervention will target the 'right' student that will benefit most from the intervention (Thomas and Quinn 2007). Padron (1992) argues that, because of their intensive and personal nature, most pre-university programmes only reach some high school learners as it is impossible to reach large groups with such interventions. It is therefore important that institutions should also visit their feeder schools and distribute information more broadly. P977 Another challenge faced by universities, in addition to underpreparedness, is the rapidly-decreasing pool of potential university students (Malan 2007). Both the literature and the results of this study emphasise that factors such as inequalities in the school system, weak academic results (especially in mathematics and physical science) and the shortage of sufficient financial support to study at university contribute to the decreasing pool, especially in disadvantaged communities. This study further indicated that learners from low socio-economic circumstances are less inclined to enter higher education than their

	peers from privileged environments. The backlogs in skills, particularly in core subjects such as Mathematics, Physical Science and Information Technology, also impact negatively on access – especially for black students. Universities are increasingly forced to find ways to enlarge the potential student pool to provide for the developmental needs of the country (Department of Education 2006) as the pool of learners from schools is decreasing. P984 From the results of the study a theoretical framework for such a holistic pre-university intervention (see Figure 1) is proposed according to which a university can play a role at school level to prepare prospective students more effectively for university studies and thus facilitate a smoother school-university transition. This integrated approach to interventions, rather than the fragmented efforts of every faculty or department that works in isolation in schools, could make a difference in learners' preparedness for university studies. PP984-985 [See p985 for proposed framework).

DATA EXTRACTION SHEET

TITLE	Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college.	
AUTHOR	**Wood, J. L., Newman, C. B., & Harris, F, III.**	
PUBLISHING DETAILS	*Western Journal of Black Studies, 39*(1), 3-17. (2015).	
PURPOSE	…the intent of this research was to examine the effect of academic self-efficacy on academic integration in the community college among first-year Black male students. PP3-4 Guided by Bean and Eaton's (2011) theory, this study sought to determine whether self-efficacy had an effect on integration for Black male students in the community college. Specifically, this study focused on the integration experiences of these men during their first-year of college. An important notion imbedded in the *psychological model of college student retention* is that self-efficacy is 'task-specific.' For instance, Bean and Eaton stated, "an individual's belief that she or he is capable in one area, such as mathematics, does not transfer to another area" (p. 77). Interestingly, the vast majority of research on self-efficacy examines efficacy as a general construct. Departing from this approach and embracing the notion that self-efficacy is task specific; the researchers of this current study were interested in investigating whether different types of self-efficacy (specifically math and English self-efficacy) resulted in differential integration outcomes	
POPULATION	**SAMPLE SIZE**	**QUALITATIVE/QUANTITATIVE/BOTH**
Black male students enrolled in the community college. These men were selected given the marked challenges that community colleges have in facilitating their successful remediation, persistence, achievement and transfer (Bush & Bush, 2004, 2005). For	Black males accounted for a weighted sample of212,703 students. P6	Quantitative. Data from this study was derived from the Educational Longitudinal Study (referred to as ELS 2006/2012). ELS is a survey conducted by the National Center for Education Statistics (NCES) that tracks the experiences and outcomes of youth. The survey follows youth from high school and into college and/or the workforce.

instance, as noted by Esters and Mosby (2007), Black male community college students have the lowest graduation rates of all their racial/ethnic and gender counterparts, with only 16% graduating within a three-year timeframe		
	FINDINGS	
TOPIC	**CAUSES**	**CONSEQUENCES**
ACADEMIC INTEGRATION	…suggesting that greater integration was associated with greater self-efficacy. Specifically, students with higher levels of math self-efficacy were more likely to interact with faculty and meet with advisors. Further, students with high levels of faculty interaction also had greater scores for English self-efficacy [see info below]. These findings seem to complement prior research, which has demonstrated the positive effects of self-efficacy on student academic outcomes (Aguayo et al., 2011; Bong, 2011; Choi, 2005; Gore, 2006; Majer, 2009; Vuong et al., 2010). P14 This study showed that math self-efficacy was significantly predictive of several academic integration measures, including talking with faculty about academic matters, meeting with advisors, and using the internet to access library resources. Bean and Eaton's (2001) *psychological model* suggests that perceptions of academic competence and confidence prior to college serve as the foundation for the psychological processes underlying integration, and as a result, persistence. This study provides some evidence to support the role of self-efficacy in this process. P14	

	Interestingly, English efficacy had little to no effect on academic integration in most of the models. In fact, when English self-efficacy was significantly predictive of an integration measure (studying in the library) it had an inverse relationship on the comparison for 'never' and 'sometimes.' As such, English self-efficacy does not seem to be an important factor in the psychological processes identified by Bean and Eaton (2001), at least with respect to the effect of initial self-efficacy perceptions on first-year college experiences. As a result, the findings regarding math self-efficacy were more salient than those for English self-efficacy. P14	
SOCIAL INTEGRATION	.	
RECOMMENDATIONS	Therefore, strengthening educational practices that facilitate the development of self-efficacy, in particular math self-efficacy, for Black men in community colleges to improve academic integration and increase students' completion and student success outcomes. P14 Another key insight derived from this study was that students with higher levels of math self-efficacy were more likely to meet with faculty and academic advisors compared to students with lower levels of math self-efficacy. Interactions with faculty and advisors are integral to student persistence and success (Bean & Eaton, 2001; Wood, 2012). Given that these measures of integration are a function of self-efficacy, the onus of such interactions cannot be left to students alone. Faculty must be diligent in proactively engaging with Black males in the community college. Investing time in establishing personal relationships with students can provide authentic affirmation of their abilities or potential. Faculty may consider mandating attendance at office hours as one possibly strategy to ensure that such relationships are fostered. These meetings can be used as spaces for academic encouragement. Moreover, colleges must establish structures that ensure regular contact between students and advisors, such as intrusive advising. P15	
ADDED NOTES	Research has illustrated the utility of self-efficacy in predicting college student success. As such, studies have shown that self-efficacy is a positive determinant of desired academic outcomes (Aguayo et al., 2011; Bong, 2011; Gore, 2006; Majer, 2009; Vuong et ah, 2010; Zimmerman, 2000). While several studies have shown that self-efficacy has a direct effect on achievement (Abd-El-Fattah, 2005; Brown, Tramayne, Hoxha, Telander, Fan & Lent, 2008), others have found that self-efficacy impacts academic outcomes through indirect measures.	

	For example, higher levels of self-efficacy have been shown to: **a) reduce students' stress and anxiety** (Abd-El-Fattah, 2005; Solberg & Villarreal, 1997; Torres & Solberg, 2001; Zajocova, Lynch & Espenshade, 2005); **b) enhance socio-cultural adjustment in college** (Chemers, Hu, & Garcia, 2001; Ramos-Sanchez & Nichols, 2007); **c) increase college satisfaction** (DeWitz & Walsh, 2002); **d) lead to clarity in life purpose** (Dewtiz, Woolsey & Walsh, 2009); **e) improve writing-grammar performance ability** (Collins & Bissell, 2004); **f) support the development of challenging goals** (Brown et ah, 2008); and **g) advance individual's pursuit of personal and academic development** (Hsieh, Sullivan & Guerra, 2007). Based on the aforementioned findings, the **benefits of self-efficacy on the college student experience are manifold**. P4 Qualitative research conducted with Black males has shown that self-efficacy is a critical facilitator of their persistence and achievement in college (Ihekwaba, 2001; Wood, 2010). Some evidence even suggests that self-efficacy can serve as a resilience factor in the college persistence process. For example, Wilkins (2005) interviewed Black men to better understand coping mechanisms that enabled these men to overcome racially hostile college settings. Students reported that having confidence in their academic abilities (self-efficacy) aided them in achieving their goals. Specifically, Wilkins reported that "men demonstrated self-efficacy, resiliency, and self-regulation in achieving their educational goals. These attributes, unified under the rubric of agency, manifested themselves in different ways, in varying degrees, and for different reasons" (p. 207-208). In particular, participants suggested that their confidence enabled them to embrace challenges in academic contexts, where they felt it was necessary to prove those, who doubted their academic abilities, (particularly faculty) wrong. P4 The theoretical underpinning of this study is based upon Bean and Eaton's (2001) *psychological model of college student retention.* They asserted that academic and social integration are outcomes of psychological processes that begin prior to college and are modified during college. P4 This point is significant, as their model indicates that academic and social integration lead to an enhanced commitment to the institution and, as a result, student persistence. P5

DATA EXTRACTION SHEET

TITLE	I'm a Reddie and a Christian! Identity negotiations amongst first-year university students.	
AUTHOR	**Allen-Collinson, J., & Brown, R.**	
PUBLISHING DETAILS	*Studies in Higher Education*, *37*(4), 497-511. (2012).	
PURPOSE	…this article explores issues of identity construction amongst a group of first-year undergraduate students based at a UK university, who self-identify as committed Christians. In this article we have considered the key themes that emerged from a study of first-year Christian university students and their ongoing construction and negotiation of Christian and jock identities. P508	
POPULATION . First-year Sports Science students at Redwich University, UK	**SAMPLE SIZE** 5 (four women, one man) were selected via purposive or 'criterion-based selection' (LeCompte and Preissle 1993, 69), based on: (1) being a full-time, first-year student based at the Redwich campus; (2) self-identifying as a committed, practising Christian. P501	**QUALITATIVE/QUANTITATIVE/BOTH** Qualitative
FINDINGS		
TOPIC	**CAUSES**	**CONSEQUENCES**
ACADEMIC INTEGRATION		
SOCIAL INTEGRATION	For all participants, their Christianity was highlighted as holding 'identity salience' (Stryker and Burke 2000), and, in the words of one, constituted the very essence of 'who I am'. They also strove to balance this with their Reddie identity. Interviewees charted their journeys of transition to university, from initial fears of loneliness and 'negative marking' due to their Christianity, through to a point when they felt confident and comfortable with a visible, 'public' presentation of Christian identification. The	

	transition from initial self-questioning, 'what if I don't make friends and fit in?', to an attitude of 'if they don't accept me then they're not the right friends' reflects such growth in confidence. P508 Although the findings are based on a very small-scale, exploratory study, nevertheless clear themes surrounding identity construction and negotiation could be discerned, some congruent with the theoretical literature and some contrasting with previous empirical research P508 In relation to our theoretical framework, commensurate with the symbolic interactionist theorisation of identity as relational, our participants emphasised the importance of interactions with their student peers. As Goffman (1974) reminds us, one's role performances are often tightly controlled in interaction with strangers. Particularly in the early days of transition to university, when social acceptance was earnestly sought, participants reported a high degree of caution in deciding to whom they made disclosure of their Christian identity. The ongoing nature of identity construction and negotiation within the interactional milieu also emerged strongly from the data. Participants had continuously to 'work' at negotiating a balance between their identities of Christian and Reddie, involving ongoing judgements and decisions P508 Although interviewees reported feeling more confident in revealing Christian identity as time went on, this was not across all interactional contexts. Furthermore, it was clear that identity was not a 'once-and-for-all' accomplishment, but contingent and requiring ongoing identity work; it was always subject to potential contestation (cf. Allen-Collinson 2007). In relation to certain sporting subcultural groups within the campus subculture, for example, participants reported not being accorded full Reddie status, due to their lack of 'full on' engagement with the jock behaviours deemed requisite. P508	

	Donnelly and Young (1988, 226) contend that members of subcultures who are unable to meet role requirements may face ostracism and/or banishment from the group, noting that, whilst some subcultures are less rigorous in their policing procedures and allow role conflicts to persist, others require unconditionally that such tensions be resolved. The heterogeneity of the Reddie subculture meant that whilst some individuals and social groups within the subculture were respecting of compromises made by Christian students in not fulfilling all Reddie membership criteria, others were less accepting, and not prepared to accord full Reddie social identity to the Christian students. Bolstered by strong friendships with Reddies who *did* accept and confirm their dual identity, however, participants' personal identification as both Reddie and Christian was strong. PP508-509 Some of the identification processes we found to be salient in participants' accounts are clearly applicable to first-year university students more generally: for example, the potential identity disruptions and opportunities engendered by moving away from home to university or college. Similarly, decisions regarding situational identity disclosure confront individuals with any 'discreditable' identity (Goffman 1990), including in relation to religion, sexuality, ethnicity, dis/ability and a whole range of potentially stigmatising characteristics and conditions. P509 Confronted with a changing social environment, however, one's belief systems may provide the requisite sense of continuity portrayed by Silver (1996); for our participants, their Christian beliefs were reported to provide a source of comfort and strength in times of change. They did, however, express having doubts as to their social integration into the new university life, given potential conflicts between Christian and student identifications. The wish to fit in with their student cohort, and with the campus culture generally, generated fears that Christian	

<table>
<tr><td></td><td>identity might have to be compromised in some way, particularly given that the jock culture on campus promoted values and norms that conflicted in many ways with those of a committed Christian. P503</td><td></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>RECOMMENDATIONS</td><td colspan="2"></td></tr>
<tr><td>ADDED NOTES

These notes belong to the Social Integration section.
Placed here for ease of fitting the info into the space.</td><td colspan="2">…research setting, approximately 220 students were living on or close to the Redwich campus, the great majority of whom were studying a Sport and Exercise Science degree. The close-knittedness and friendly ambience of the campus were repeatedly mentioned by interviewees, who referred to it as a ‘friendly family’ and ‘little community’. P501

This was highlighted as one of its most reassuring and ‘homely’ features. Redwich had a significant history as a physical education teacher training campus, and sport constituted an important part of campus life. Indeed, the campus had a reputation for proudly upholding a jock culture whose traditions were transmitted from generation to generation over decades by ‘Reddies’ (students perceived as committed to the norms and values of the sports-student Redwich subculture). P501

All participants reported being acutely aware of the drinking culture associated both with university and with student sports, even prior to their arrival at university. This pre-socialisation information (Donnelly and Young 1988) provoked significant anxiety about integration into the Reddie subculture: I wasn’t really into that whole drinking, clubbing lifestyle, I thought I’d just sort of … stick out, not make any friends. Participants all reported wanting to fit in and feel socially accepted, and were aware that failure to meet subcultural demands surrounding alcohol consumption might result in ostracism from the social group (cf. Donnelly and Young 1988). The requirement to display commitment to the social life, excessive alcohol consumption and anti-intellectualism noted by other researchers (Macdonald and Kirk 1999; Skelton 1993; Sparkes, Partington, and Brown 2007) was clearly reflected by interviewees:

You’re expected to go out as much as possible, drink as much as possible, do as little work as possible.

The oft recounted legends of initiation ceremonies, glorifying heavy drinking as fulfilling a key ‘commandment’ for social acceptance (Sparkes, Partington, and Brown 2007), presented first-year students with a dilemma, for conformity to the student drinking culture would conflict directly with their religious beliefs. P503

A female student, for example, confessed to feelings of uncertainty regarding coping with pressure to conform, but noted that social support from older Christian students had eased the interactional dilemma at her first social event PP503-504</td></tr>
</table>

	The nature of the Redwich campus on which the students were housed exacerbated some of these identity anxieties. The smallness of the campus (the campus being a self-contained part of a larger institution) was perceived as both a positive and negative feature. Whilst it fostered a sense of belonging and social cohesion, the very close-knittedness of the student community meant that Christian students initially worried that disclosure of their faith would result in their ‘negative marking’ (Allen- Collinson 2009; Brekhus 1998, 2008) by fellow students, … P504 Brekhus (2008, 1062) uses the marked/unmarked distinction, derived from linguistics, to analyse the relationship between the ‘deviant’, stigmatising, non-normative (marked) and the privileging, normative and ‘generic’ aspects of social identities. As he notes (1062–63), the marked/unmarked framework has been used primarily in relation to analyses of ‘race’, class, gender and sexuality, but proves sufficiently generic to be applicable to other identities, amongst which we would include religious identity, where this constitutes part of a person’s visible or declared ‘presentation of self’ (Goffman 1974). P504 Whilst disclosure was to some extent within the control of our students, others’ responses were not, and could have significant repercussions for social acceptance within the tight-knit community P505 The importance of establishing good friendships, which could provide sustained social support, particularly in times of difficulty, was repeatedly highlighted by interviewees. Congruent with other research findings (e.g. Wilcox, Winn, and Fyvie-Gauld 2005), participants described how student friends became ‘new family’ and ‘friendly family’. The social acceptance stakes were high, however, as, without the support of good friends accepting of their Christianity, some students feared they would have left higher education altogether: If I didn’t have this group of friends I’d probably have dropped out of uni P505

DATA EXTRACTION SHEET

TITLE	Am I "That" Talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level.	
AUTHOR	**Gomez-Arízaga, M. P., & Conejeros-Solar, M. L.**	
PUBLISHING DETAILS	*High Ability Studies*, *24*(2), 135-151. (2013).	
PURPOSE	The aim of this study was to **explore and describe the stories of a group of Chilean gifted students from two different educational backgrounds** – those who attended public and those who went to voucher schools – about their postsecondary experiences. The following research questions guided the study: (1) What are gifted students' perceptions about their academic preparedness at a postsecondary level? (2) How do gifted students describe their social and emotional experiences in postsecondary settings? (3) What is the impact of students' participation in an enrichment program for the gifted in their postsecondary experiences? P139	
POPULATION	**SAMPLE SIZE**	**QUALITATIVE/QUANTITATIVE/BOTH**
Participants were former students from a university-based enrichment program, the BETA (Buenos Estudiantes con Talento Académico) program, and were part of it for three consecutive years (grades 10–12). Chile, South America	Therefore, students who presented capabilities that placed them in the top 10% of their age group were eligible to enter the program. The modality for recruiting students for the program was based upon teacher nominations as the first stage and used preset scales. Once students were nominated from their educational institutions, they participated in an evaluation process at the BETA program. P140 The BETA program provides systematic opportunities for students aged 11–17 to develop their talent potential. The program offers courses and workshops all year long (two academic semesters plus a summer session) every Friday afternoon and Saturday morning in different topics according to students' motivations and interests and classes are taught by university professors. The courses are not part of school curricula; they are specially designed for these students and they focus on specific and in-depth content knowledge, providing numerous hands-on and challenging experiences for students to	A qualitative methodology was chosen because it allowed us to unfold people's stories by analyzing the meaning of their narratives (Bogdan & Biklen, 1982). The qualitative approach also was a suitable option because many of the current studies on gifted college students have been conducted quantitatively with the use of surveys or other self-report measures. P139 Because no previous research was found on this topic in Chile, we took an exploratory-descriptive approach to capture participants' experiences. P139

	develop high-order cognitive skills such as critical thinking, problem-solving, and creativity. P140 Twelve students participated in the focus group sessions. According to their postsecondary experiences, they were divided into Group 1, former BETA students with one year of college experience (5 male, 4 female; 6 who attended vocational high school, 3 who attended voucher high schools); and Group 2, former BETA students who deferred college entrance and attended private academic preparation courses to retake the national college entrance test (3 males who attended vocational high schools). Three participants in the sample attended voucher schools; whereas, nine came from vocational high schools.	
FINDINGS		
TOPIC	**CAUSES**	**CONSEQUENCES**
ACADEMIC INTEGRATION	Academic preparedness has an influence on the adjustment of gifted students to a postsecondary academic setting, and this adjustment affects the way they see themselves. For the group from vocational schools, one of the main problems with the adaptation was the lack of content knowledge needed to meet the minimum requirements for success in their college courses. On the other side, students from voucher schools adapted easily to college academic demands. The lack of academic preparation of students from vocational schools is consistent with Adelman's (2006) findings about current differences in the academic intensity of high school curricula. P147 In summary, these vocational schools do not prepare students for college entrance, and being unprepared is one of the reasons for the academic struggles and low achievement faced by students from vocational high	

	schools in this study. Students' low performance in college could be conceptualized as underachievement; however, we prefer to use the definition proposed by Steele and McDonald (2008), which is gifted students who are academically unprepared but academically capable. P147 For students from vocation and voucher schools, one substantial problem was to modify their study habits to meet the academic rigor of college courses, which is consistent with the findings made by Coleman (2002) about the "shock" to face growing and complex academic demands in highly competitive and demanding environments. Gifted students' transition to college, therefore, requires constant adaptations related to study habits, rigor, time management, and finding balance between leisure and study time. The complex scenario of postsecondary academic rigor, academic difficulties, perceptions that they lack preparedness, and doubt about their own capacities is complicated by the assumption that giftedness predetermines academic success. Academic success, within the specific results of this research, is shown to be related to the ability to keep up with classmates and achieve the necessary level of content knowledge. Gifted students are no longer "special," standing out in the crowd. They meet peers of similar abilities, and their uniqueness is lost within the "academic elite" that makes up the college population in Chile. P148 Despite initial socio-emotional adjustment difficulties, motivation for the students in the study acts as a "safety net" that helps them succeed and prevents their withdrawal from college. Students in the sample described motivation as an affirmative dialogue with the inner self translated into a strong desire to overcome difficult experiences and succeed in their career paths (Hammond et al., 2007). Motivation and perseverance act as triggers to implement coping strategies to successfully	

	face college stressors, such as developing efficient study habits, managing time successfully, and compensating the lack of content knowledge to face college courses. Students seemed to use problem-focused coping, a strategy that involves use of problem-solving behaviors to face a situation that is likely to change in the future knowing that social and other supports are available (Holahan & Moos, 1987). Also, motivation to finish tertiary studies can be crucial to some students, to whom college is a life-changing experience and a way through which social mobility can be achieved. P148	
SOCIAL INTEGRATION	The participants in the study encountered social and emotional complexities related to their initial experiences in postsecondary settings. Their challenges included initial difficulties adapting to the new social contexts, particularly to environments that have a diverse socio-cultural composition. These difficulties were more evident for students from vocational high schools. An example of this adaptation was students' referral to "snobby" classmates who were frequently students from upper socioeconomic classes that might talk, dress, and think in a different way. However, once the initial social connection was made, students showed a clear progression in the adjustment to college's social environment by making new friends and participating in study groups. These findings are consistent with Astin's (1993) findings about the value of social networks in students' success and adjustment to their first year of postsecondary experiences. P148 However, participants stated that being identified as a gifted student sometimes had a negative impact on their first year of postsecondary experiences. The "gifted" label, for some of the participants, had a negative effect because of the higher expectations held by other individuals (e.g. students and professors) who knew about this label. The negative impact of labeling found in this	

	study is consistent with the findings of Hertzog (2003) who found that college students refer to the label of gifted with caution because of the expectations the label carries and the chance of disappointing people in their close environment. P149	
RECOMMENDATIONS	A monitoring model for first-year gifted students that includes a support system devised to meet the different needs of these students should be developed through initiatives such as mentoring, counseling, and academic preparation for college. Mentoring can be a meaningful experience for gifted students, especially for those who are struggling with academic and social integration during their first year of tertiary education. Interactions with experienced members of the university learning community also can be a significant contribution and a life-changing experience. However, even if academic support is available for gifted students, and many Chilean universities have implemented remedial programs for freshmen students to reinforce academic contents, support also is needed to help students develop study skills. Skills associated with studying, such as self-regulation, learning strategies, and time organization, can be important when facing college academic demands and for gifted students can be as important as the task itself. P149 Creating opportunities for students to access extra-curricular academic preparation is a short-term suitable option. For example, college entrance preparation centers, called Preuniversitarios in Chile, have proven to be a powerful tool for students to acquire the necessary skills for entering college. Creating more centers or promoting free access to the existing ones can be a suitable option for students from low socioeconomic backgrounds who do not have these opportunities, especially those from vocational schools.	
ADDED NOTES	The societal and institutional expectations are that gifted students will succeed academically without additional support. However, Olszewski-Kubilius and Laubscher (1996) found that gifted students experienced higher academic stress than their non-gifted counterparts. Also, special populations of gifted students, such as students from lower socioeconomic backgrounds, have conflicting college experiences and are likely to face financial, social, and personal difficulties (Hollis & Guzman, 2005). P136 Public schools are institutions that are financed and administered by school districts, and their socioeconomic composition included approximately 70% of students from low socioeconomic status (SES) backgrounds (Valenzuela, Labarrera, & Rodríguez, 2008). Voucher schools in Chile are jointly funded by the central government and the parents who pay tuition. Voucher schools in Chile vary in academic quality. The ones considered in this investigation were academically prestigious institutions that had a population of mainly middle-class students. P137 Vocational high schools offer two years of general academic preparation and two years of technical training. Therefore, their graduates have lacked the necessary content knowledge to meet some of the college requirements. In addition, implementers of the curriculum in vocational schools did not address the same content covered in regular high schools in Chile (Eyzaguirre & Le Foulon, 2002), which has caused students to achieve low scores on college entrance tests and possible academic failure during their first year in college. P137	

Appendix E

Themes Maps

THEMES MAP

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration											
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	SES	Access prog	Mentorship	Motivation	First Gen	Feeling comp	Acad Engag	
6	Allen-Collinson, J., & Brown, R. (2012). I'm a Reddie and a Christian! Identity negotiations amongst first-year university students. *Studies in Higher Education, 37*(4), 497-511.												
10	Arnold, I. J. M. (2013). Ethnic minority dropout in Economics. *Journal of Further and Higher Education, 37*(3), 297-320.	**X**											
14	Baker, S. (2012). Classroom karaoke: A social and academic transition strategy to enhance the first-year experience of Youth Studies students. *Youth Studies Australia, 31*(1), 25-33.		**X**										
19	Bass, G. H. (2011). Social and academic integration in an extended curriculum programme. *The Journal of Independent Teaching and Learning*, *6*, 45-54. http://reference.sabinet.co.za/webx/access/electronic_journals/jitl/jitl_v6_a6.pdf	**X**			**X**	**X**	**X**	**X**			**X**		
21	Bitzer, E. M. (2009). Academic and social integration in three first-year groups: A holistic perspective. *South African Journal of Higher Education, 23*(2), 225-245.	**X**	**X Fair assem**						**X**				
23	Bowles, A., Fisher, R., McPhail, R., Rosenstreich, D., & Dobson, A. (2014). Staying the distance: Students' perceptions of enablers of transition to higher education. *Higher Education Research and Development, 33*(2), 212-225.												

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration															
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction or Supprt fr Staff	SES	Access prog	Mentorship	Motivation	First Gen	Feeling comp Acad Efficacy	Financial	Home resposib	Unfamiliar Env	Acad Engage	Gender	Learning Comm
24	Bradbury, B. L., & Mather, P. C. (2009). The integration of first-year, first-generation college students from Ohio Appalachia. *National Association of Student Personnel Administrators Journal, 46*(2), 258-281.		X		X				X	X	X	X	X	X	X		
26	Braxton, J. M., Jones, W. A., Hirschy, A. S., & Hartley, H. V., III. (2008). The Role of Active Learning in College Student Persistence. *New Directions for Teaching and Learning, 115*, 71-83.		X												X		
27	Brooman, S., & Darwent, S. (2014). Measuring the beginning: A quantitative study of the transition to higher education. *Studies in Higher Education, 39*(9), 1523-1541. doi: 10.1080/03075079.2013.801428				X						X					X F	
28	Burks, S. A., & Barrett, T. G. (2009). Student characteristics and activity choices of college freshmen and their intent to persist in religiously affiliated institutions. *Christian Higher Education, 8*(5), 351-392. doi: 10.1080/15363750902917276															X M	X No
33	Clark, M. H., Middleton, S. C., Nguyen, D., & Zwick, L. K. (2014). Mediating relationships between academic motivation, academic integration and academic performance. *Learning and Individual Differences, 33*, 30-38. doi: 10.1016/j.lindif.2014.04.007								X								

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	SES	Access prog	Mentorship	Motivation	First Gen	Feeling comp	Learning Com	Acad Engagm or [illegible]	
35	Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education. *Higher Education: The International Journal of Higher Education and Educational Planning, 68*(6), 927-942.													
45	Dias, D., & Sá, M. J. (2014). Initiation rituals in university as lever for group cohesion. *Journal of Further & Higher Education, 38*(4), 447-464. doi: 10.1080/0309877X.2012.722198													
47	Eck, J. C., Edge, H., & Stephenson, K. (2007). Investigating types of student engagement through Living-Learning Communities: The perspective from Rollins College. *Assessment Update, 19*(3), 6-8.											X	X	
50	Fergy, S., Marks-Maran, D., Ooms, A., Shapcott, J., & Burke, L. (2011). Promoting social and academic integration into higher education by first-year student nurses: The APPL project. *Journal of Further and Higher Education, 35*(1), 107-130.			X	X				X			X		
54	Fowler, J., & Zimitat, C. (2008). Common Time: Embedding the concept of academic and social integration across cognate degree programmes. *Innovations in Education and Teaching International, 45*(1), 37-46. doi: 10.1080/14703290701757435			X	X						X	X	X	

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	SES	Access prog	Mentorship	Motivation	First Gen	Feeling comp	Employment	Acad Engagm or	Social Media
58	Gilardi, S., & Guglielmetti, C. (2011). University life of non-traditional students: Engagement styles and impact on attrition. *Journal of Higher Education, 82*(1), 33-53.											X		
60	Gomez-Arízaga, M. P., & Conejeros-Solar, M. L. (2013). Am I "That" Talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level. *High Ability Studies, 24*(2), 135-151.	X							X					
61	Govender, S. (2014). Successful access at the University of KwaZulu-Natal, South Africa through ubuntu: The student voice. *Indilinga – African Journal of Indigenous Knowledge Systems, 13*(1) 11-27. http://reference.sabinet.co.za/webx/access/electronic_journals/linga/linga_v13_n1_a3.pdf													
62	Gray, R., Vitak, J., Easton, E. W., & Ellison, N. B. (2013). Examining social adjustment to college in the age of social media: Factors influencing successful transitions and persistence. *Computers and Education, 67*, 193-207. doi: 10.1016/j.compedu.2013.02.021													X
68	Hausmann, L., Ye, F., Schofield, J., & Woods, R. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*(7), 649-669. doi: 10.1007/s11162-009-9137-8													

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	Social Support	Access prog	Engagement	Motivation	First Gen	Feeling comp	Institutional Com	Goal Com	Financial
74	Hixenbaugh, P., Dewart, H., & Towell, T. (2012). What enables students to succeed? An investigation of socio-demographic, health and student experience variables. *Psychodynamic Practice, 18*(3), 285-301. doi: 10.1080/14753634.2012.695887	X			X	X				X		X	X	X
77	Huesman, R., Brown, A. K., Lee, G., Kellogg, J. P., & Radcliffe, P. M. (2009). Gym bags and mortarboards: Is use of campus recreation facilities related to student success? *Journal of Student Affairs Research and Practice, 46*(1), 50-71.													X
78	Hughes, G., & Smail, O. (2015). Which aspects of university life are most and least helpful in the transition to HE? A qualitative snapshot of student perceptions. *Journal of Further and Higher Education, 39*(4), 466-480. doi: 10.1080/0309877X.2014.971109													
82	Jehangir, R. R. (2009). Cultivating voice: First-generation students seek full academic citizenship in multicultural Learning Communities. *Innovative Higher Education, 34*(1), 33-49.									X				

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	Accommoda	Access prog	Mentorship	Finances	First Gen	Employment	Induction	Engagement	Institu Responsiblit
84	Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on Business or Economics degree programmes. *International Journal of Management Education, 12*(2), 193-201.				**X +Soc Int**							**X**	**X**	
101	Lathrop, A. H., O'Connell, T. S., & Howard, R. A. (2012). The impact of an outdoor orientation program on first-year student perceptions of life effectiveness and campus integration. *Collected Essays on Learning and Teaching, 5*, 92-97.							**X**				**X O ut d o or**		
102	Leveson, L., McNeil, N., & Joiner, T. (2013). Persist or withdraw: The importance of external factors in students' departure intentions. *Higher Education Research and Development, 32*(6), 932-945.		**X**		**X**	**X co m**			**X**		**X neg**		**X**	**X**
107	Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). "Facebook," Social integration and informal learning at university: "It is more for socialising and talking to friends about work than for actually doing work." *Learning, Media and Technology, 34*(2), 141-155.			**X fb**	X									
112	Mamiseishvili, K. (2012a). Academic and social integration and persistence of international students at U.S. two-year institutions. *Community College Journal of Research and Practice, 36*(1), 15-27.				**X +Soc int**									

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	Intervention	Access prog	Orientation	Motivation	First Gen	Accomm & Travel	Career Guid	Unrealist Exp	Culture
113	Mamiseishvili, K. (2012b). International student persistence in U.S. postsecondary institutions. *Higher Education, 64*(1), 1-17. doi: 10.1007/s10734-011-9477-0	**X**		**X For acad purp oses**					**X**					
114	Mamiseishvili, K., & Koch, L. C. (2011). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. *Rehabilitation Counseling Bulletin, 54*(2), 93-105.													
118	McEwan, B., & Guerrero, L. K. (2010). Freshmen engagement through communication: Predicting friendship formation strategies and perceived availability of network resources from communication skills. *Communication Studies, 61*(4), 445-463. doi: 10.1080/10510974.2010.493762													
131	Nel, C., Troskie-de Bruin, C., & Bitzer, E. (2009). Students' transition from school to university: Possibilities for a pre-university intervention. *South African Journal of Higher Education*, *23*(5), 974-991. http://reference.sabinet.co.za/webx/access/electronic_journals/high/high_v23_n5_a9.pdf	**X**								**X**	**X**	**X**	**X**	**X**
138	Pan, W., Guo, S., Alikonis, C., & Bai, H. (2008). Do intervention programs assist students to succeed in college? A multilevel longitudinal study. *College Student Journal, 42*(1), 90-98.			**X**	**X**	**X**		**X**						

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration										
		Acad Advisem	Classroom Centrality	Interaction with Peers	Interaction with Staff	Family Support	Effective Study Skills	Self-Efficacy & Confidence	First Gen	Match Studnt vs Institi	Engagament	Induction
	Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *Journal of Experimental Education, 75*(4), 270-290.								X no			
152	Settle, J. S. (2011). Variables that encourage students to persist in community colleges. *Community College Journal of Research and Practice, 35*(4), 281-300.									X		
153	Severiens, S. E., & Schmidt, H. G. (2009). Academic and social integration and study progress in Problem Based Learning. *Higher Education: The International Journal of Higher Education and Educational Planning, 58*(1), 59-69.		X PBL	X	X							
155	Shepler, D. K., & Woosley, S. A. (2012). Understanding the early integration experiences of college students with disabilities. *Journal of Postsecondary Education and Disability, 25*(1), 37-50.					X					X	X Plan
173	Turner, P., & Thompson, E. (2014). College retention initiatives meeting the needs of millennial freshman students. *College Student Journal, 48*(1), 94-104.	X			X		X	X				X

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration											
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	Finances	Self-Efficacy	Instit Comitm	Motivation	First Gen	Learning Comm	Staying in Res Accommod	Course Ch Career Guid
182	Waldron, V. R., & Yungbluth, S. C. (2007). Assessing student outcomes in communication-intensive Learning Communities: A two-year longitudinal study of academic performance and retention. *Southern Communication Journal, 72*(3), 285-302.				X						X		
186	Wardley, L., & Belanger, C. (2013). Rites of passage: Does adaptation to university mean severing connections? *Tertiary Education and Management, 19* (1), 32-51.											X	
188	Wilcox, P., Winn, S., & Fyvie-Gauld, M. (2005). "It was nothing to do with the university. It was just the people": The role of social support in the first-year experience of higher education. *Studies in Higher Education, 30*(6), 707-722.		X			X						X	X
189	Willcoxson, L. (2010). Factors affecting intention to leave in the first, second and third year of university studies: A semester-by-semester investigation. *Higher Education Research and Development, 29*(6), 623-639.	X	X		X		X	X					X
191	Wood, J. L., Newman, C. B., & Harris, F., Ill. (2015). Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college. *Western Journal of Black Studies, 39* (1), 3-17.				X		X						

ACADEMIC INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	SES	Access prog	Mentorship	Motivation	First Gen	Feeling comp	Confidence	Interset in Subject	Feedback
196	Zaitseva, E., Milsom, C., & Stewart, M. (2013). Connecting the dots: Using concept maps for interpreting student satisfaction. *Quality in Higher Education, 19*(2), 225-247.		X	X	X							X	X	X

THEMES MAP

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
6	Allen-Collinson, J., & Brown, R. (2012). I'm a Reddie and a Christian! Identity negotiations amongst first-year university students. *Studies in Higher Education, 37*(4), 497-511.													
10	Arnold, I. J. M. (2013). Ethnic minority dropout in Economics. *Journal of Further and Higher Education, 37*(3), 297-320.													
14	Baker, S. (2012). Classroom karaoke: A social and academic transition strategy to enhance the first-year experience of Youth Studies students. *Youth Studies Australia, 31*(1), 25-33.													
19	Bass, G. H. (2011). Social and academic integration in an extended curriculum programme. *The Journal of Independent Teaching and Learning*, *6*, 45-54. http://reference.sabinet.co.za/webx/access/electronic_journals/jitl/jitl_v6_a6.pdf													
21	Bitzer, E. M. (2009). Academic and social integration in three first-year groups: A holistic perspective. *South African Journal of Higher Education, 23*(2), 225-245.													
23	Bowles, A., Fisher, R., McPhail, R., Rosenstreich, D., & Dobson, A. (2014). Staying the distance: Students' perceptions of enablers of transition to higher education. *Higher Education Research and Development, 33*(2), 212-225.													

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence									
24	Bradbury, B. L., & Mather, P. C. (2009). The integration of first-year, first-generation college students from Ohio Appalachia. *National Association of Student Personnel Administrators Journal, 46*(2), 258-281.	X												
26	Braxton, J. M., Jones, W. A., Hirschy, A. S., & Hartley, H. V., III. (2008). The Role of Active Learning in College Student Persistence. *New Directions for Teaching and Learning, 115*, 71-83.			X										
27	Brooman, S., & Darwent, S. (2014). Measuring the beginning: A quantitative study of the transition to higher education. *Studies in Higher Education, 39*(9), 1523-1541. doi: 10.1080/03075079.2013.801428													
28	Burks, S. A., & Barrett, T. G. (2009). Student characteristics and activity choices of college freshmen and their intent to persist in religiously affiliated institutions. *Christian Higher Education, 8*(5), 351-392. doi: 10.1080/15363750902917276			X	X									
33	Clark, M. H., Middleton, S. C., Nguyen, D., & Zwick, L. K. (2014). Mediating relationships between academic motivation, academic integration and academic performance. *Learning and Individual Differences, 33*, 30-38. doi: 10.1016/j.lindif.2014.04.007	X												

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Acad Success	Acad Skills & Knowledge	Retention	Persistence	Higher Order Learning Intell	Self-directed Learning							
35	Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education. *Higher Education: The International Journal of Higher Education and Educational Planning, 68*(6), 927-942.													
45	Dias, D., & Sá, M. J. (2014). Initiation rituals in university as lever for group cohesion. *Journal of Further & Higher Education, 38*(4), 447-464. doi: 10.1080/0309877X.2012.722198													
47	Eck, J. C., Edge, H., & Stephenson, K. (2007). Investigating types of student engagement through Living-Learning Communities: The perspective from Rollins College. *Assessment Update, 19*(3), 6-8.	X												
50	Fergy, S., Marks-Maran, D., Ooms, A., Shapcott, J., & Burke, L. (2011). Promoting social and academic integration into higher education by first-year student nurses: The APPL project. *Journal of Further and Higher Education, 35*(1), 107-130.													
54	Fowler, J., & Zimitat, C. (2008). Common Time: Embedding the concept of academic and social integration across cognate degree programmes. *Innovations in Education and Teaching International, 45*(1), 37-46. doi: 10.1080/14703290701757435		X			X	X							

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence									
58	Gilardi, S., & Guglielmetti, C. (2011). University life of non-traditional students: Engagement styles and impact on attrition. *Journal of Higher Education, 82*(1), 33-53.													
60	Gomez-Arízaga, M. P., & Conejeros-Solar, M. L. (2013). Am I "That" Talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level. *High Ability Studies, 24*(2), 135-151.													
61	Govender, S. (2014). Successful access at the University of KwaZulu-Natal, South Africa through ubuntu: The student voice. *Indilinga – African Journal of Indigenous Knowledge Systems, 13*(1) 11-27. http://reference.sabinet.co.za/webx/access/electronic_journals/linga/linga_v13_n1_a3.pdf													
62	Gray, R., Vitak, J., Easton, E. W., & Ellison, N. B. (2013). Examining social adjustment to college in the age of social media: Factors influencing successful transitions and persistence. *Computers and Education, 67*, 193-207. doi: 10.1016/j.compedu.2013.02.021				X									
68	Hausmann, L., Ye, F., Schofield, J., & Woods, R. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*(7), 649-669. doi: 10.1007/s11162-009-9137-8													

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence									
74	Hixenbaugh, P., Dewart, H., & Towell, T. (2012). What enables students to succeed? An investigation of socio-demographic, health and student experience variables. *Psychodynamic Practice, 18*(3), 285-301. doi: 10.1080/14753634.2012.695887	X	X											
77	Huesman, R., Brown, A. K., Lee, G., Kellogg, J. P., & Radcliffe, P. M. (2009). Gym bags and mortarboards: Is use of campus recreation facilities related to student success? *Journal of Student Affairs Research and Practice, 46*(1), 50-71.													
78	Hughes, G., & Smail, O. (2015). Which aspects of university life are most and least helpful in the transition to HE? A qualitative snapshot of student perceptions. *Journal of Further and Higher Education, 39*(4), 466-480. doi: 10.1080/0309877X.2014.971109													
82	Jehangir, R. R. (2009). Cultivating voice: First-generation students seek full academic citizenship in multicultural Learning Communities. *Innovative Higher Education, 34*(1), 33-49.													

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence									
84	Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on Business or Economics degree programmes. *International Journal of Management Education, 12*(2), 193-201.													
101	Lathrop, A. H., O'Connell, T. S., & Howard, R. A. (2012). The impact of an outdoor orientation program on first-year student perceptions of life effectiveness and campus integration. *Collected Essays on Learning and Teaching, 5*, 92-97.													
102	Leveson, L., McNeil, N., & Joiner, T. (2013). Persist or withdraw: The importance of external factors in students' departure intentions. *Higher Education Research and Development, 32*(6), 932-945.			X										
107	Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). "Facebook," Social integration and informal learning at university: "It is more for socialising and talking to friends about work than for actually doing work." *Learning, Media and Technology, 34*(2), 141-155.													
112	Mamiseishvili, K. (2012a). Academic and social integration and persistence of international students at U.S. two-year institutions. *Community College Journal of Research and Practice, 36*(1), 15-27.				X									

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence									
113	Mamiseishvili, K. (2012b). International student persistence in U.S. postsecondary institutions. *Higher Education, 64*(1), 1-17. doi: 10.1007/s10734-011-9477-0			X	X AI More imp									
114	Mamiseishvili, K., & Koch, L. C. (2011). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. *Rehabilitation Counseling Bulletin, 54*(2), 93-105.				X									
118	McEwan, B., & Guerrero, L. K. (2010). Freshmen engagement through communication: Predicting friendship formation strategies and perceived availability of network resources from communication skills. *Communication Studies, 61*(4), 445-463. doi: 10.1080/10510974.2010.493762													
131	Nel, C., Troskie-de Bruin, C., & Bitzer, E. (2009). Students' transition from school to university: Possibilities for a pre-university intervention. *South African Journal of Higher Education*, *23*(5), 974-991. http://reference.sabinet.co.za/webx/access/electronic_journals/high/high_v23_n5_a9.pdf	X												
138	Pan, W., Guo, S., Alikonis, C., & Bai, H. (2008). Do intervention programs assist students to succeed in college? A multilevel longitudinal study. *College Student Journal, 42*(1), 90-98.	X		X	X									

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence									
141	Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *Journal of Experimental Education, 75*(4), 270-290.	X												
152	Settle, J. S. (2011). Variables that encourage students to persist in community colleges. *Community College Journal of Research and Practice, 35*(4), 281-300.													
153	Severiens, S. E., & Schmidt, H. G. (2009). Academic and social integration and study progress in Problem Based Learning. *Higher Education: The International Journal of Higher Education and Educational Planning, 58*(1), 59-69.	X												
155	Shepler, D. K., & Woosley, S. A. (2012). Understanding the early integration experiences of college students with disabilities. *Journal of Postsecondary Education and Disability, 25*(1), 37-50.													
173	Turner, P., & Thompson, E. (2014). College retention initiatives meeting the needs of millennial freshman students. *College Student Journal, 48*(1), 94-104.		X		X									

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Academic Success	Institut Com	Retention	Persistence	Teamwork	Communic Skills							
182	Waldron, V. R., & Yungbluth, S. C. (2007). Assessing student outcomes in communication-intensive Learning Communities: A two-year longitudinal study of academic performance and retention. *Southern Communication Journal, 72*(3), 285-302.	**X**		**X**	**X**	**X**	**X**							
186	Wardley, L., & Belanger, C. (2013). Rites of passage: Does adaptation to university mean severing connections? *Tertiary Education and Management, 19* (1), 32-51.													
188	Wilcox, P., Winn, S., & Fyvie-Gauld, M. (2005). "It was nothing to do with the university. It was just the people": The role of social support in the first-year experience of higher education. *Studies in Higher Education, 30*(6), 707-722.													
189	Willcoxson, L. (2010). Factors affecting intention to leave in the first, second and third year of university studies: A semester-by-semester investigation. *Higher Education Research and Development, 29*(6), 623-639.		**X** **None**											
191	Wood, J. L., Newman, C. B., & Harris, F., III. (2015). Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college. *Western Journal of Black Studies, 39* (1), 3-17.				**X**									

ACADEMIC INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Academic Integration												
		Preparatory Education	Classroom Centrality	Interaction with Peers	Interaction with Staff	SES	Access prog	Mentorship	Motivation	First Gen	Feeling comp			
196	Zaitseva, E., Milsom, C., & Stewart, M. (2013). Connecting the dots: Using concept maps for interpreting student satisfaction. *Quality in Higher Education, 19*(2), 225-247.													

THEMES MAP

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution			
6	Allen-Collinson, J., & Brown, R. (2012). I'm a Reddie and a Christian! Identity negotiations amongst first-year university students. *Studies in Higher Education, 37*(4), 497-511.	X	X										
10	Arnold, I. J. M. (2013). Ethnic minority dropout in Economics. *Journal of Further and Higher Education, 37*(3), 297-320.												
14	Baker, S. (2012). Classroom karaoke: A social and academic transition strategy to enhance the first-year experience of Youth Studies students. *Youth Studies Australia, 31*(1), 25-33.		X										
19	Bass, G. H. (2011). Social and academic integration in an extended curriculum programme. *The Journal of Independent Teaching and Learning*, *6*, 45-54. http://reference.sabinet.co.za/webx/access/electronic_journals/jitl/jitl_v6_a6.pdf		X		X				X				
21	Bitzer, E. M. (2009). Academic and social integration in three first-year groups: A holistic perspective. *South African Journal of Higher Education, 23*(2), 225-245.					X	X	X					
23	Bowles, A., Fisher, R., McPhail, R., Rosenstreich, D., & Dobson, A. (2014). Staying the distance: Students' perceptions of enablers of transition to higher education. *Higher Education Research and Development, 33*(2), 212-225.												

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution	Homesickness	Involvm camps activc	Acad Engamnt
24	Bradbury, B. L., & Mather, P. C. (2009). The integration of first-year, first-generation college students from Ohio Appalachia. *National Association of Student Personnel Administrators Journal, 46*(2), 258-281.	**X**				**X**	**X**	**X**					
26	Braxton, J. M., Jones, W. A., Hirschy, A. S., & Hartley, H. V., III. (2008). The Role of Active Learning in College Student Persistence. *New Directions for Teaching and Learning, 115*, 71-83.			**X**									**0 eff**
27	Brooman, S., & Darwent, S. (2014). Measuring the beginning: A quantitative study of the transition to higher education. *Studies in Higher Education, 39*(9), 1523-1541. doi: 10.1080/03075079.2013.801428	**X**		**X**			**X Res**						
28	Burks, S. A., & Barrett, T. G. (2009). Student characteristics and activity choices of college freshmen and their intent to persist in religiously affiliated institutions. *Christian Higher Education, 8*(5), 351-392. doi: 10.1080/15363750902917276		**X**				**X Off Camp**					**X**	
33	Clark, M. H., Middleton, S. C., Nguyen, D., & Zwick, L. K. (2014). Mediating relationships between academic motivation, academic integration and academic performance. *Learning and Individual Differences, 33*, 30-38. doi: 10.1016/j.lindif.2014.04.007												

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution	Learning Com	First Gen	
35	Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education. *Higher Education: The International Journal of Higher Education and Educational Planning, 68*(6), 927-942.		X		X								
45	Dias, D., & Sá, M. J. (2014). Initiation rituals in university as lever for group cohesion. *Journal of Further & Higher Education, 38*(4), 447-464. doi: 10.1080/0309877X.2012.722198	X										X	
47	Eck, J. C., Edge, H., & Stephenson, K. (2007). Investigating types of student engagement through Living-Learning Communities: The perspective from Rollins College. *Assessment Update, 19*(3), 6-8.										X		
50	Fergy, S., Marks-Maran, D., Ooms, A., Shapcott, J., & Burke, L. (2011). Promoting social and academic integration into higher education by first-year student nurses: The APPL project. *Journal of Further and Higher Education, 35*(1), 107-130.		X										
54	Fowler, J., & Zimitat, C. (2008). Common Time: Embedding the concept of academic and social integration across cognate degree programmes. *Innovations in Education and Teaching International, 45*(1), 37-46. doi: 10.1080/14703290701757435		X	X							X		

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution	Social Media		
58	Gilardi, S., & Guglielmetti, C. (2011). University life of non-traditional students: Engagement styles and impact on attrition. *Journal of Higher Education, 82*(1), 33-53.	**X**	**X**	**X**									
60	Gomez-Arízaga, M. P., & Conejeros-Solar, M. L. (2013). Am I "That" Talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level. *High Ability Studies, 24*(2), 135-151.		**X**										
61	Govender, S. (2014). Successful access at the University of KwaZulu-Natal, South Africa through ubuntu: The student voice. *Indilinga – African Journal of Indigenous Knowledge Systems, 13*(1) 11-27. http://reference.sabinet.co.za/webx/access/electronic_journals/linga/linga_v13_n1_a3.pdf	**X**											
62	Gray, R., Vitak, J., Easton, E. W., & Ellison, N. B. (2013). Examining social adjustment to college in the age of social media: Factors influencing successful transitions and persistence. *Computers and Education, 67*, 193-207. doi: 10.1016/j.compedu.2013.02.021		**X**				X Res				**X**		
68	Hausmann, L., Ye, F., Schofield, J., & Woods, R. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*(7), 649-669. doi: 10.1007/s11162-009-9137-8	**X**											

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Learning Comm	Financial Support	Accommodation	Induction	Social Support	Commitment to Institution	Employment	Engagement	Positive Thinking
74	Hixenbaugh, P., Dewart, H., & Towell, T. (2012). What enables students to succeed? An investigation of socio-demographic, health and student experience variables. *Psychodynamic Practice, 18*(3), 285-301. doi: 10.1080/14753634.2012.695887										X		
77	Huesman, R., Brown, A. K., Lee, G., Kellogg, J. P., & Radcliffe, P. M. (2009). Gym bags and mortarboards: Is use of campus recreation facilities related to student success? *Journal of Student Affairs Research and Practice, 46*(1), 50-71.					X	X					X CRF	
78	Hughes, G., & Smail, O. (2015). Which aspects of university life are most and least helpful in the transition to HE? A qualitative snapshot of student perceptions. *Journal of Further and Higher Education, 39*(4), 466-480. doi: 10.1080/0309877X.2014.971109	X	X	X				X	X				X
82	Jehangir, R. R. (2009). Cultivating voice: First-generation students seek full academic citizenship in multicultural Learning Communities. *Innovative Higher Education, 34*(1), 33-49.	X	X	X	X								

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution	Social Support		
84	Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on Business or Economics degree programmes. *International Journal of Management Education, 12*(2), 193-201.	**X**		**X**									
101	Lathrop, A. H., O'Connell, T. S., & Howard, R. A. (2012). The impact of an outdoor orientation program on first-year student perceptions of life effectiveness and campus integration. *Collected Essays on Learning and Teaching, 5*, 92-97.	**X**	**X**								**X**		
102	Leveson, L., McNeil, N., & Joiner, T. (2013). Persist or withdraw: The importance of external factors in students' departure intentions. *Higher Education Research and Development, 32*(6), 932-945.												
107	Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). "Facebook," Social integration and informal learning at university: "It is more for socialising and talking to friends about work than for actually doing work." *Learning, Media and Technology, 34*(2), 141-155.		**X** **fb**	**X**									
112	Mamiseishvili, K. (2012a). Academic and social integration and persistence of international students at U.S. two-year institutions. *Community College Journal of Research and Practice, 36*(1), 15-27.			**X**									

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution	Involvement	Culture Shock	
113	Mamiseishvili, K. (2012b). International student persistence in U.S. postsecondary institutions. *Higher Education, 64*(1), 1-17. doi: 10.1007/s10734-011-9477-0												
114	Mamiseishvili, K., & Koch, L. C. (2011). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. *Rehabilitation Counseling Bulletin, 54*(2), 93-105.		**X**								**X**		
118	McEwan, B., & Guerrero, L. K. (2010). Freshmen engagement through communication: Predicting friendship formation strategies and perceived availability of network resources from communication skills. *Communication Studies, 61*(4), 445-463. doi: 10.1080/10510974.2010.493762		**X** **Com m skills**										
131	Nel, C., Troskie-de Bruin, C., & Bitzer, E. (2009). Students' transition from school to university: Possibilities for a pre-university intervention. *South African Journal of Higher Education*, *23*(5), 974-991. http://reference.sabinet.co.za/webx/access/electronic_journals/high/high_v23_n5_a9.pdf											**X**	
138	Pan, W., Guo, S., Alikonis, C., & Bai, H. (2008). Do intervention programs assist students to succeed in college? A multilevel longitudinal study. *College Student Journal, 42*(1), 90-98.		**X**	**X**							**X**		

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Perception Camp & Expectation	Homesickness	Induction	Family Support	Feeling Competent	Induction & LCs	First Generation	Engagement Involv	PBL
141	Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *Journal of Experimental Education, 75*(4), 270-290.	X	X						X		X		
152	Settle, J. S. (2011). Variables that encourage students to persist in community colleges. *Community College Journal of Research and Practice, 35*(4), 281-300.			X								X	
153	Severiens, S. E., & Schmidt, H. G. (2009). Academic and social integration and study progress in Problem Based Learning. *Higher Education: The International Journal of Higher Education and Educational Planning, 58*(1), 59-69.		X	X									X
155	Shepler, D. K., & Woosley, S. A. (2012). Understanding the early integration experiences of college students with disabilities. *Journal of Postsecondary Education and Disability, 25*(1), 37-50.	X	X		X	X						X	
173	Turner, P., & Thompson, E. (2014). College retention initiatives meeting the needs of millennial freshman students. *College Student Journal, 48*(1), 94-104.	X		X			X			X		X	

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommod Res	Family Support	Feeling Secure	Commitment to Institution	Learning Comm	Involvement Engagement	
182	Waldron, V. R., & Yungbluth, S. C. (2007). Assessing student outcomes in communication-intensive Learning Communities: A two-year longitudinal study of academic performance and retention. *Southern Communication Journal, 72*(3), 285-302.										X		
186	Wardley, L., & Belanger, C. (2013). Rites of passage: Does adaptation to university mean severing connections? *Tertiary Education and Management, 19* (1), 32-51.						X					X	
188	Wilcox, P., Winn, S., & Fyvie-Gauld, M. (2005). "It was nothing to do with the university. It was just the people": The role of social support in the first-year experience of higher education. *Studies in Higher Education, 30*(6), 707-722.	X	X	X			X						
189	Willcoxson, L. (2010). Factors affecting intention to leave in the first, second and third year of university studies: A semester-by-semester investigation. *Higher Education Research and Development, 29*(6), 623-639.											X	
191	Wood, J. L., Newman, C. B., & Harris, F., III. (2015). Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college. *Western Journal of Black Studies, 39* (1), 3-17.												

SOCIAL INTEGRATION: CONTRIBUTING FACTORS

Article Ref No.	Author & Title Final Sample	FACTORS CONTRIBUTING TO Social Integration											
		Sense of belonging and Identity	Interaction with Peers	Informal interaction Staff	Mentorship	Financial Support	Accommodation	Family Support	Feeling Secure	Commitment to Institution			
196	Zaitseva, E., Milsom, C., & Stewart, M. (2013). Connecting the dots: Using concept maps for interpreting student satisfaction. *Quality in Higher Education, 19*(2), 225-247.	X	X										

THEMES MAP

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Retention	Persistence	No effect									
6	Allen-Collinson, J., & Brown, R. (2012). I'm a Reddie and a Christian! Identity negotiations amongst first-year university students. *Studies in Higher Education, 37*(4), 497-511.		X											
10	Arnold, I. J. M. (2013). Ethnic minority dropout in Economics. *Journal of Further and Higher Education, 37*(3), 297-320.				X									
14	Baker, S. (2012). Classroom karaoke: A social and academic transition strategy to enhance the first-year experience of Youth Studies students. *Youth Studies Australia, 31*(1), 25-33.													
19	Bass, G. H. (2011). Social and academic integration in an extended curriculum programme. *The Journal of Independent Teaching and Learning*, *6*, 45-54. http://reference.sabinet.co.za/webx/access/electronic_journals/jitl/jitl_v6_a6.pdf	X												
21	Bitzer, E. M. (2009). Academic and social integration in three first-year groups: A holistic perspective. *South African Journal of Higher Education, 23*(2), 225-245.													
23	Bowles, A., Fisher, R., McPhail, R., Rosenstreich, D., & Dobson, A. (2014). Staying the distance: Students' perceptions of enablers of transition to higher education. *Higher Education Research and Development, 33*(2), 212-225.				X									

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Too much social	Instit Commitmn		Retention	Persistence	No effect						
24	Bradbury, B. L., & Mather, P. C. (2009). The integration of first-year, first-generation college students from Ohio Appalachia. *National Association of Student Personnel Administrators Journal, 46*(2), 258-281.		X					X						
26	Braxton, J. M., Jones, W. A., Hirschy, A. S., & Hartley, H. V., III. (2008). The Role of Active Learning in College Student Persistence. *New Directions for Teaching and Learning, 115*, 71-83.			X		X	X							
27	Brooman, S., & Darwent, S. (2014). Measuring the beginning: A quantitative study of the transition to higher education. *Studies in Higher Education, 39*(9), 1523-1541. doi: 10.1080/03075079.2013.801428													
28	Burks, S. A., & Barrett, T. G. (2009). Student characteristics and activity choices of college freshmen and their intent to persist in religiously affiliated institutions. *Christian Higher Education, 8*(5), 351-392. doi: 10.1080/15363750902917276						X							
33	Clark, M. H., Middleton, S. C., Nguyen, D., & Zwick, L. K. (2014). Mediating relationships between academic motivation, academic integration and academic performance. *Learning and Individual Differences, 33*, 30-38. doi: 10.1016/j.lindif.2014.04.007													

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Acad success	Retention	Persistence	No effect	Decreased Stress	Taking Respons	Increased Confid	Sense of Support	Socialis Norms &Values			
35	Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education. *Higher Education: The International Journal of Higher Education and Educational Planning, 68*(6), 927-942.			X										
45	Dias, D., & Sá, M. J. (2014). Initiation rituals in university as lever for group cohesion. *Journal of Further & Higher Education, 38*(4), 447-464. doi: 10.1080/0309877X.2012.722198													
47	Eck, J. C., Edge, H., & Stephenson, K. (2007). Investigating types of student engagement through Living-Learning Communities: The perspective from Rollins College. *Assessment Update, 19*(3), 6-8.		X											
50	Fergy, S., Marks-Maran, D., Ooms, A., Shapcott, J., & Burke, L. (2011). Promoting social and academic integration into higher education by first-year student nurses: The APPL project. *Journal of Further and Higher Education, 35*(1), 107-130.			X										
54	Fowler, J., & Zimitat, C. (2008). Common Time: Embedding the concept of academic and social integration across cognate degree programmes. *Innovations in Education and Teaching International, 45*(1), 37-46. doi: 10.1080/14703290701757435						X			X	X			

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Retention	Persistence	No effect	Institution Com								
58	Gilardi, S., & Guglielmetti, C. (2011). University life of non-traditional students: Engagement styles and impact on attrition. *Journal of Higher Education, 82*(1), 33-53.			X										
60	Gomez-Arízaga, M. P., & Conejeros-Solar, M. L. (2013). Am I "That" Talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level. *High Ability Studies, 24*(2), 135-151.													
61	Govender, S. (2014). Successful access at the University of KwaZulu-Natal, South Africa through ubuntu: The student voice. *Indilinga – African Journal of Indigenous Knowledge Systems, 13*(1) 11-27. http://reference.sabinet.co.za/webx/access/electronic_journals/linga/linga_v13_n1_a3.pdf													
62	Gray, R., Vitak, J., Easton, E. W., & Ellison, N. B. (2013). Examining social adjustment to college in the age of social media: Factors influencing successful transitions and persistence. *Computers and Education, 67*, 193-207. doi: 10.1016/j.compedu.2013.02.021		X	X										
68	Hausmann, L., Ye, F., Schofield, J., & Woods, R. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*(7), 649-669. doi: 10.1007/s11162-009-9137-8			X		X								

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Retention	Persistence	Academic Success	No effect								
74	Hixenbaugh, P., Dewart, H., & Towell, T. (2012). What enables students to succeed? An investigation of socio-demographic, health and student experience variables. *Psychodynamic Practice, 18*(3), 285-301. doi: 10.1080/14753634.2012.695887													
77	Huesman, R., Brown, A. K., Lee, G., Kellogg, J. P., & Radcliffe, P. M. (2009). Gym bags and mortarboards: Is use of campus recreation facilities related to student success? *Journal of Student Affairs Research and Practice, 46*(1), 50-71.		X	X	X									
78	Hughes, G., & Smail, O. (2015). Which aspects of university life are most and least helpful in the transition to HE? A qualitative snapshot of student perceptions. *Journal of Further and Higher Education, 39*(4), 466-480. doi: 10.1080/0309877X.2014.971109													
82	Jehangir, R. R. (2009). Cultivating voice: First-generation students seek full academic citizenship in multicultural Learning Communities. *Innovative Higher Education, 34*(1), 33-49.													

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Retention	Persistence	No effect									
84	Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on Business or Economics degree programmes. *International Journal of Management Education, 12*(2), 193-201.													
101	Lathrop, A. H., O'Connell, T. S., & Howard, R. A. (2012). The impact of an outdoor orientation program on first-year student perceptions of life effectiveness and campus integration. *Collected Essays on Learning and Teaching, 5*, 92-97.													
102	Leveson, L., McNeil, N., & Joiner, T. (2013). Persist or withdraw: The importance of external factors in students' departure intentions. *Higher Education Research and Development, 32*(6), 932-945.													
107	Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). "Facebook," Social integration and informal learning at university: "It is more for socialising and talking to friends about work than for actually doing work." *Learning, Media and Technology, 34*(2), 141-155.													
112	Mamiseishvili, K. (2012a). Academic and social integration and persistence of international students at U.S. two-year institutions. *Community College Journal of Research and Practice, 36*(1), 15-27.			X	X									

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Acad Success	Retention	Persistence	No effect									
113	Mamiseishvili, K. (2012b). International student persistence in U.S. postsecondary institutions. *Higher Education, 64*(1), 1-17. doi: 10.1007/s10734-011-9477-0													
114	Mamiseishvili, K., & Koch, L. C. (2011). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. *Rehabilitation Counseling Bulletin, 54*(2), 93-105.			X More imp than AI										
118	McEwan, B., & Guerrero, L. K. (2010). Freshmen engagement through communication: Predicting friendship formation strategies and perceived availability of network resources from communication skills. *Communication Studies, 61*(4), 445-463. doi: 10.1080/10510974.2010.493762													
131	Nel, C., Troskie-de Bruin, C., & Bitzer, E. (2009). Students' transition from school to university: Possibilities for a pre-university intervention. *South African Journal of Higher Education*, *23*(5), 974-991. http://reference.sabinet.co.za/webx/access/electronic_journals/high/high_v23_n5_a9.pdf													
138	Pan, W., Guo, S., Alikonis, C., & Bai, H. (2008). Do intervention programs assist students to succeed in college? A multilevel longitudinal study. *College Student Journal, 42*(1), 90-98.	X		X										

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Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Acad Success	Retention	Persistence	No effect	Institutional Satisfaction	Commitm to Instit							
141	Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *Journal of Experimental Education, 75*(4), 270-290.	X												
152	Settle, J. S. (2011). Variables that encourage students to persist in community colleges. *Community College Journal of Research and Practice, 35*(4), 281-300.	X		X										
153	Severiens, S. E., & Schmidt, H. G. (2009). Academic and social integration and study progress in Problem Based Learning. *Higher Education: The International Journal of Higher Education and Educational Planning, 58*(1), 59-69.	X												
155	Shepler, D. K., & Woosley, S. A. (2012). Understanding the early integration experiences of college students with disabilities. *Journal of Postsecondary Education and Disability, 25*(1), 37-50.					X								
173	Turner, P., & Thompson, E. (2014). College retention initiatives meeting the needs of millennial freshman students. *College Student Journal, 48*(1), 94-104.			X			X							

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Retention	Persistence	No effect									
182	Waldron, V. R., & Yungbluth, S. C. (2007). Assessing student outcomes in communication-intensive Learning Communities: A two-year longitudinal study of academic performance and retention. *Southern Communication Journal, 72*(3), 285-302.													
186	Wardley, L., & Belanger, C. (2013). Rites of passage: Does adaptation to university mean severing connections? *Tertiary Education and Management, 19* (1), 32-51.													
188	Wilcox, P., Winn, S., & Fyvie-Gauld, M. (2005). "It was nothing to do with the university. It was just the people": The role of social support in the first-year experience of higher education. *Studies in Higher Education, 30*(6), 707-722.		X											
189	Willcoxson, L. (2010). Factors affecting intention to leave in the first, second and third year of university studies: A semester-by-semester investigation. *Higher Education Research and Development, 29*(6), 623-639.													
191	Wood, J. L., Newman, C. B., & Harris, F., III. (2015). Self-efficacy as a determinant of academic integration: An examination of first-year Black males in the community college. *Western Journal of Black Studies, 39* (1), 3-17.													

SOCIAL INTEGRATION: OUTCOMES

Article Ref No.	Author & Title Final Sample	OUTCOMES OF Social Integration												
		Feeling secure	Retention	Persistence	No effect									
196	Zaitseva, E., Milsom, C., & Stewart, M. (2013). Connecting the dots: Using concept maps for interpreting student satisfaction. *Quality in Higher Education, 19*(2), 225-247.													