



Provided by the author(s) and University of Galway in accordance with publisher policies. Please cite the published version when available.

Title	First-year student well-being and persistence: Building the evidence base and including the student perspective
Author(s)	Daniels, Natasha
Publication Date	2022-02
Publisher	NUI Galway
Item record	http://hdl.handle.net/10379/17055

Downloaded 2024-05-18T14:26:38Z

Some rights reserved. For more information, please see the item record link above.



**First-year student well-being and persistence:
Building the evidence base and including the student perspective.**

Natasha Daniels
MA Health Promotion.

A thesis submitted for a degree of Doctor in Philosophy

Supervisor: Dr. Pádraig MacNeela

School of Psychology,
College of Arts, Social Sciences and Celtic Studies,
National University of Ireland, Galway.

February 2022

AUTHOR'S DECLARATION

I declare/certify that, except where acknowledged, all parts of this thesis were undertaken by myself. The information contained in this thesis has not been used to obtain a degree in this, or another University.

Natasha Daniels

Table of Contents

List of Tables.....	6
List of Figures.....	8
List of Appendices.....	8
Acknowledgements.....	9
Abstract.....	12
Chapter 1 Introduction.....	14
1.1 Chapter overview.....	14
1.2 The aim of this research.....	14
1.3 The development of the Irish Education System.....	15
1.4 Access to third-level education in Ireland.....	19
1.5 Student support initiatives.....	21
1.6 First-year college student trends in Ireland.....	21
1.7 First-year college student well-being	23
1.8 The benefits of student persistence towards education attainment.....	25
1.9 Policy identification and analysis.....	25
1.10 The problem to be addressed	35
1.11 Outline of the thesis structure.....	36
Chapter 2 Literature Review.....	39
2.1 Introduction.....	39
2.2 The first-year student transition to college.....	39
2.3 Focus on first-year students	40
2.4 Student retention and student persistence – what is the difference?.....	40
2.5 Why is student persistence and education attainment important?.....	42
2.6 Student retention theory.....	42
2.6.1 The historical development of Student Retention Theory	42
2.6.2 The Institutional Departure Model.....	44
2.6.3 Credibility of Tinto’s Institutional Departure Model	48
2.7 Student retention and persistence literature	50
2.7.1 Overview of the research	50
2.7.2 Important student retention and persistence factors.....	51
2.8 Student Success	55

2.9	Important factors for promoting student persistence.....	55
2.10	What do first year students say?.....	61
2.11	Implications for first year student college persistence.....	62
2.12	First-year college student well-being.....	63
2.12.1	Defining well-being	64
2.12.2	Linking health behaviours with well-being.....	65
2.12.3	Well-being constructs included in this research.....	65
2.13	Linking student well-being with academic attainment.....	72
2.14	Education is a prerequisite for health and well-being.....	73
2.15	Persistence and well-being; creating a supportive environment.....	74
2.16	The socio-ecological model for health promotion.....	74
2.17	Chapter Summary.....	77
2.18	This research.....	77
2.19	The importance of this current research.....	79
Chapter 3	Methodology.....	82
3.1	Chapter overview.....	82
3.2	The Student Information Project	82
3.3	Philosophical Approach.....	83
3.3.1	Epistemology.....	83
3.3.2	Methodology.....	85
3.4	Research Design.....	88
3.5	Methodological approach of each study.....	90
3.5.1	Study 1.....	90
3.5.2	Study 2.....	94
3.5.4	Study 3.....	101
3.6	Qualitative Research Reliability & Validity.....	111
3.6.1	Credibility.....	111
3.6.2	Transferability.....	112
3.6.3	Dependability.....	112
3.6.4	Confirmability.....	113
3.7	Reflexivity.....	113
3.8	Ethical Considerations.....	115

Chapter 4 Peer-reviewed Paper 1: Variables effecting first-year student commitment during the transition to college in Ireland.

Abstract	116
Introduction	117
Methods.....	121
Results.....	124
Discussion.....	129
Conclusion.....	132
Limitations	133

Chapter 5 Peer-reviewed Paper 2: Exploring the influence of student well-being on first-year student commitment and integration at college.

Abstract.....	134
Introduction.....	135
Methodology.....	138
Results.....	140
Discussion.....	143
Conclusions.....	145
Limitations.....	146

Chapter 6 Peer-reviewed Paper 3: Students' Views of the Promoters and Barriers to First Year College Persistence.

Abstract.....	147
Introduction.....	147
Methodology	151
Results.....	156
Discussion.....	163
Limitations.....	168
Conclusion.....	169

Chapter 7 Discussion.....171

7.1 Introduction	171
7.2 Chapter Overview.....	171
7.3 The approach of this research.....	171
7.4 Linking the three research studies.....	173
7.5 The Student Persistence Model.....	180

7.6 Implications for Future Research, Practice, and Policy.....	184
7.6.1 Implications for Future Research	184
7.6.2 Implications for Policy and Practice.....	185
7.7 Limitations of this study	186
7.8 Strengths of this study.....	187
7.9 Conclusion.....	188
References.....	189
Appendices.....	234

List of Tables

Table 1. Important Student Persistence and Retention Factors.....	54
Table 2. The Socio-ecological Model for Health Promotion.....	76
Table 3. Summary of Academic, Social, Commitment and Well-being Measures, along with Cronbach’s α as a Measure of Internal Consistency.....	92
Table 4. Sample Comparisons Across Time 1 and Time 2.....	97
Table 5. Participatory Research Workshop Attendance.....	105
Table 6. Summary of Academic, Social, Commitment and Well-being measures, along with Cronbach’s α as a Measure of Internal Consistency.....	123
Table 7. Percentage Frequency Distribution for each of General Commitment and Institutional Commitment.....	125
Table 8. Parameter Estimates for General Commitment.....	126
Table 9. Summary of Commitment, Integration and Well-being Measures, with Cronbach’s α as a Measure of Internal Consistency.....	139
Table 10. Percentage Frequency Distribution for General Commitment, Institutional Commitment and Academic and Social Integration.....	140
Table 11. Summary of Parameter Estimates for General Commitment.....	142
Table 12. Stages of the Participatory Methodology.....	152
Table 13. The Six Key Promoters to First-year Student Persistence.....	157
Table 14. What Supports Students Need to Persist and Who They Need This Support From.....	158
Table 15. The Ten Key Barriers to First-Year Student Persistence.....	159
Table 16. What Supports Students Need to Persist and Who They Need This Support From.....	160

Table 17. Summary of the Number of Supports Needed During First Year at College
with Examples.....161

Table 18. Overview of The Timeline of Supports Data.....162

List of Figures

Figure 1. Tinto’s Longitudinal Model of Institutional Departure.....	45
Figure 2. Definition of Well-being	64
Figure 3. The Socio-ecological Model of Health Promotion.....	75
Figure 4. Example of Promoter Themes, Post-Its Assigned, and Votes by The Participant.....	107
Figure 5. Example of Barrier Themes, Post-Its Assigned, and Votes by The Participant.....	108
Figure 6. Example of a Completed Barriers Pizza Chart.....	109
Figure 7. Example Timeline of Supports.....	110
Figure 8. Summary of the Student Data.....	163
Figure 9. Summary of Student Data.....	178
Figure 10. Student Persistence Model	181

List of Appendices

Appendix 1. Student Survey Time 1.....	234
Appendix 2. Student Survey Time 2.....	247
Appendix 3. Participant Consent Form.....	253
Appendix 4. Participatory Workshop Information Sheet.....	254
Appendix 5. Project Information Sheet for Student Research Partnership Panel.....	255

Acknowledgements

Firstly, I would like to thank my supervisor Dr Padraig MacNeela for providing me with support and guidance throughout my PhD. I wish to thank you for giving me the opportunity to participate in this PhD programme and for helping me find the confidence to believe in my own ability. Your knowledge and guidance have enabled me to become a better and more assured researcher and you have prepared me well for my future endeavours.

A special thank you to the students who participated in the surveys and the qualitative workshops without whom this study could not have been possible. I greatly appreciate the time and effort they volunteered and for the important knowledge they have allowed me to collate. I hope I have accurately and respectfully represented their views.

I wish to thank my Graduate Research Committee; Dr Denis O’Hora, Dr Sinead Conneely and Dr Geraldine Leader for their guidance through the course of my PhD. I feel particularly lucky to have had this Graduate Research Committee who were always supportive, understanding, encouraging and considerate of me and how I was doing, as well as my research and how it was progressing. I would like to thank the School of Psychology and also the Child and Youth Research programme for the support, advice and friendship I have received throughout the course of my PhD. I would like to thank Student Services at NUI, Galway for funding my PhD, without which this research would not have been possible.

A very special thank you to Professor Jerome Sheahan. You are such a kind and funny man and I feel very lucky to have met you. You gave me so much support and encouragement during this process and I will always be so grateful to you for this. Your emails and chats always made me smile and gave me the confidence to keep going! I can only hope that in the future I will be able to pay the kindness and support you gave me forward to other students in some way. I always looked forward to our meetings Jerome, and I feel like I have gained a great friend. Thanks again.

A special thank you to Dr. Audrey Thomas. I will always be so grateful to you for agreeing to and enabling my student visit to University of California, Berkeley. I learned so much and met some amazing and very inspiring people who have remained in my mind while working on this thesis. Audrey I can only imagine how much effort and planning you put into my visit, how much time it must have taken you to arrange all the meetings you carefully scheduled on campus for me to get the most out of the opportunity. You are a very kind and

generous person, and I will always think of my time in Berkeley, with you and your family with fond memories. Thank you, Audrey, for giving me that amazing opportunity.

To my friends, some fellow PhD students and some not remotely part of the PhD realm, thank you for your friendship. Thank you for taking the time to express your interests in my work, for encouraging me to do my best, for talking through problems with me, for listening, for distracting me when I was feeling stressed and for the laughs along the way. I am so grateful for every one of you.

A big thank you to my family. To my Mam and Sean, my Dad and Liz, my siblings Dean and Katie, and my in-laws, Mary and Martin. You have all been a source of encouragement and support in different ways over the last few years and I will always remember and appreciate this. A special thank you to my Mam, who always encouraged me to pursue higher education to give myself the best opportunities I could. Little did you or I think I would one day do a PhD! Thanks for everything Mam, for always wanting and pushing for the best for me, and for always being there.

To my three children. Although you boys, Jonah and Jayden were just babies when I began this PhD, you have been such a source of persistence and determination for me every day. In 2019, with great joy Juliette came along and life got even busier, sleep became more elusive, but you helped me focus on the finish line and renewed my determination to get there. Jonah, Jayden and Juliette being your Mom is my biggest privilege in life. You make life so much fun and you always ensure I remember to hold dear what is most important, our family. I hope when you three are older you will look at my graduation picture and see your little faces right beside me and it will inspire you to go and do something that seems out of reach and at times almost impossible. Your Mommy loves you so very much.

Finally, and most of all I want to express my deepest love and gratitude to you Noel, my husband. I literally could not have done this without you and your endless encouragement. It has been a team effort from day one and I feel in so many ways this PhD is as much yours as it is mine. You stepped up, as always, with words of encouragement, hugs, listening ears, changing your week around to fit my commitments, taking on extra with the kids to give me the time I needed, making me laugh, keeping me focused, proof-reading my work and endlessly talking things through with me. You are so very appreciated, and we are all very lucky to have you. I look forward to our next adventure together.

Dedicated to

My Grandmothers, Teresa & Maisie.

Two of the strongest, most loving and kindest ladies.

Abstract

Student persistence is essential to student education attainment and is linked with student motivation to continue with their studies, even when they face challenges. Student persistence during first year of college is the central topic of this thesis, towards understanding how students can be supported. In Ireland, one in seven first-year students do not persist beyond their first year in college. This research aims to enhance our understanding of the factors contributing to this trend.

Student well-being is an important public health priority. In particular, student mental well-being has emerged as an international area of concern in recent years with a wealth of research available exploring this area. The link between education and health is acknowledged in Irish policy, World Health Organisation definitions and the research in this area broadly. However, student persistence and retention modelling and research has been minimally inclusive of the consideration of student well-being as an important factor with the potential to impact persistence. This research aims to help towards understanding the link between student persistence and student well-being.

Underpinned by Tinto's Institutional Departure Model the relationship between student persistence and student well-being are explored within this research. The research employed a multimethod design to explore the first-year student experience utilising quantitative and qualitative research methodologies. Study 1 (cross-sectional) and Study 2 (longitudinal) are quantitative studies focused on the experience of students during the first-year transition to college towards understanding important persistence factors, with the inclusion of well-being factors. In addition, Study 3 aimed to explore the student perspective of persistence utilising a qualitative participatory research methodology. This enabled a student partnership and data sharing approach towards an in-depth understanding of student persistence and the related support provision.

The 3 studies resulted in four overall constructs emerging as important to first-year student persistence. These are; suitability of the academic course, student academic experiences, student social experiences and student well-being. Social factors that emerged as important for persistence included peer connections (S1), friends (S3), social life (S3) and loneliness (S3). In addition, important academic factors that emerged included academic self-efficacy (S1), academic environment (S1), academic supports (S3), academic skills (S3) and lack of motivation (S3). Much of this supports the literature with the consideration of a connection to

home (S3) and gaining independence (S3) emerging as potentially new persistence promoting factors by the students.

Well-being emerged as important to student persistence in all three studies; depression (S1,2), physical activity (S1), self-rated health (S1,2), cannabis use (S2), substance use (S3), stress (S3) and anxiety (S3). This provides quantitative and qualitative evidence of a relationship between student persistence and a variety of student well-being factors. Thus, identifying student well-being as an important construct to consider towards first-year student persistence and retention in the future.

In addition, this research, for the first time enabled students themselves as research partners to identify three distinct parts of the transition to college and the support needs towards enabling persistence. Part 1 focused on supporting preparation for college (e.g., right course, accommodation, understanding what to expect from college), Part 2 focused on supports during semester 1 (time management, course transfers, online social support, academic skills) and Part 3 focused on supports during semester 2 (continuous assessment, tutorials, grinds, strict on attendance, social skills). In addition, student well-being (specifically mental well-being) supports were identified as being needed throughout the entire first year of college, as a necessary towards persistence by the students.

Considering this data, an integrative model conceptualising the important elements of student persistence, inclusive of well-being is presented. The model identifies the 3 central spheres of the first-year experience, the relative importance of each, and the need for on-going student persistence supports in relation to the 3 spheres. Central to the model is each student being enrolled in a suitable academic course (or have opportunity to transfer to a suitable course during first year) towards persistence. Once on the right academic course, the model theorises that first-year student persistence is subject to each student's ability to navigate 3 student-centred spheres of college; the academic sphere, the social sphere and the well-being sphere within a supportive higher education environment. The model considers the relative importance of these 3 spheres, theorising the academic sphere is primary, with the student social experiences and well-being supporting their persistence thereafter.

Chapter 1 Introduction

1.1 Chapter overview

This chapter begins with a presentation of the aims of this research. Following on from this, three key threads of knowledge will be discussed to introduce the context of this work.

Firstly, the structure and advancement of the higher education system in Ireland, and the associated changing student trends over recent decades. Secondly, the importance of linking student education achievement with student well-being will be introduced, and the implications of student persistence and education attainment for students and their wider community. Thirdly, the policy landscape will be presented and discussed in terms of higher education provision of strategic intentions with actionable clarity towards student continuation and education attainment. This chapter will conclude with a statement of the problem to be addressed, followed by an outline of the thesis.

So why are these three threads of knowledge important? Simply put, to help understand the context of the Irish higher education system and its ability to operate from a function of student support. In addition, student well-being during the transition to college is a central consideration of this research, so the extent to which it is interlinked with higher education is examined. Thus, student trends, policy provision, higher education system change, student support provision and student well-being are explored relating to the literature within this chapter.

1.2 The aim of this research

The overall aim of this study is to explore the first-year student experience towards a greater understanding of the factors that impact first year student persistence. To achieve this a multimethod research methodology will be utilised with the research carried out in three distinct studies. Study 1 and 2 are quantitative studies exploring the first-year experience, and Study 3 is a retrospective qualitative study conducted with second year students exploring the first-year experience towards identification of support needs. These three studies are designed to complement one another and build on the information provided by each one separately. Study 1, the cross-sectional research will provide an information base on the first-year student status. Study 2, the longitudinal research will provide more information of the first-year student experience in relation to student well-being. Study 3, the qualitative research

will move beyond data collection to research in partnership with the students having an active voice portraying their experience of persistence. The objectives of these three studies were;

1. To collect cross-sectional data from first year students in semester 1 to explore what student characteristics, experiences and well-being variables predict student commitment to college during the early first-year transition.
2. To examine the association of early semester 1 student well-being variables with student commitment and integration at the end of first year.
3. To work in partnership with students to explore and understand the factors with the potential to impact first year student persistence, student support needs and timing of the provision of the identified supports.

Education has always been highly valued in Ireland (Department of Education and Science, 2004; Department of Education and Skills, 2015; Higher Education Authority, 2019), with a high level of Government commitment and prioritisation of funding allocation over the last fifty years (Department of Education and Skills, 2015). The achievement of a student's desired education, and in turn the opportunity to reach their potential is central to all discussions within this thesis. This research focuses on the fundamental importance of each young person who aspires to achieve a third level education in Ireland doing so with the necessary support and guidance.

1.3 The development of the Irish Education System

In Ireland, even in historic times of political, economic and social difficulty, the desire for education was evident and highly valued (Department of Education and Science, 2004). Back as far as 1831, the actions of Lord Stanley, the Chief Secretary for Ireland, led to the establishment of a national school system. The beginning of education system reform and establishment can be seen from the mid-1920s onwards including; major curricular reform based on recommendations from the First National Programme Conference (Walsh, 2016), teacher registration, school aid through capital grant schemes, legally required school attendance, and establishment of the Junior and Leaving Certificate Examinations (Raftery & Hout, 1993), all to the betterment of the first, second and third level education system.

First-level education refers to primary schooling which children typically attend from their 4th or 5th year for eight years (Department of Education and Science, 2004). Then children move into second-level education, attended from the ages 12 to 18 years or over a five-year term. Now, education in Ireland is compulsory from the age 6 to 16 years or until each student has completed three years of second level (the Junior Cycle) education. The terminology of "Junior Cycle" and "Senior Cycle" are commonly used to describe the years within second-level education, linked with the Junior Certificate state examination upon completing the first three years and the Leaving Certificate state examination upon completion of the latter two. Of particular importance to education progression is the Leaving Certificate examination, as entry to third level education is closely linked, and often dependent upon the results achieved by students in this examination.

In Ireland over the past three decades secondary schools have made substantial progress improving school completion to leaving certificate attainment, with rates increasing from approximately 60% in the early 1980s, to approximately 80% in the early 2000, to almost 91% by 2013 (Department of Education and Skills, 2015). This post-primary school student retention, along with other societal changes, fuelled societal demand for access to, and participation in higher education in Ireland (Department of Education and Skills, 2015).

The beginnings of the higher education system in Ireland included four universities; Trinity College Dublin (TCD) and the four constituent colleges of the National University of Ireland (NUI). Traditionally Trinity College student intake was restricted to an elite Protestant student profile in the nineteenth century. The NUI colleges emerged in 1908 as non-denominational institutions designed to offer higher education to the Catholic majority population in Southern Ireland. However, regardless of their cultural or religious differences, the universities shared similar characteristics: they attracted only a small minority of the population, were severely under-resourced and were oriented strongly towards training for the professions. Entry to University was almost exclusively determined by social and family background, with higher education primarily for the privileged elite, within a mainly fee-based funding model. Very limited allocation of Government funding between 1920 to 1960 pointed to the low political priority status attached to higher education and the absence of public debate on its importance during this time (Walsh, 2016; White 2001).

Higher Education reform in Ireland can be traced back to policy change after the Second World War (Walsh, 2016). This began when a small ‘elite’ Irish higher education system underwent dramatic change due to government policy linked with the emerging international consensus that investment in education at all levels was essential to economic development (Walsh, 2016; White, 2001). An elite higher education system refers to a system with entry of approximately 15% of the relevant school leaving age cohort to higher education (Trow, 1973). In 1959, a government commissioned report found that under the then present “conditions the quality and standards of both the teaching and the work of the university cannot for long go unaffected” (Government of Ireland, 1959, p.128).

In 1965 a seminal report, “Investment in Education”, highlighted the restrictive and elitist nature of university institutions (Government of Ireland, 1965), with 65% of university entrants from the Leaving Certificate cohort in 1963 identified as children of professionals, employers and higher white-collar employees. This report also identified only 2% of university students were from the unskilled and semi-skilled manual socio-economic categories (Government of Ireland, 1965). The report led to the development of the Higher Education Authority, a cornerstone body in higher education in Ireland to this day. The results of this report also ensured Government commitment to the development of higher education in terms of capacity for a strategic and systems-based approach to education provision. Thus, in the following twenty years public spending on higher education increased to an 18% allocation of the public spending budget, up from 1% in 1960, proving the scale of the change in Government commitment. As a result, new campus buildings were built, more staff were hired, and access was improved (Walsh, 2016).

Up until the 1960s universities dominated the higher education sector with, for example, only 660 students pursuing higher-level technical courses nationally in 1964 (Government of Ireland, 1965, p.4). The opportunities for higher education for most students were limited, with the only institutions offering higher-level courses in technical education located in Dublin, Cork and Shannon. Due to the need for a skilled workforce for economic development, a dramatic reassessment of Irish education policy towards Higher Technical Education occurred. The Department of Education invited two examiners from the Organisation for Economic Co-operation and Development (OECD) to undertake a review of technical education and training in the context of economic development (OECD, 1964). The international experts criticised the absence of an adequate preparatory course at second level

for potential entrants to the colleges of technology and the lack of any educational ladder from school to university for people from communities not represented at higher education at the time (OECD, 1964).

As a result, in 1963 the first national policy for establishment of 'Regional Technological Colleges' designed to provide curriculum-based education for employment in trade and industry over a wide range of occupations was announced (Steering Committee, 1969, p.11). The resulting Government response guaranteed the establishment of a network of new technical colleges extending to most regions of the country. Hillery's statement was the first significant government initiative aimed to diversify the higher education system towards meeting social demand in Ireland. Thus, Higher Technical Education emerged as a distinct strand within the higher education system, offering, some similar (engineering, science) and some alternative (hospitality, industry-based skills) routes to higher or professional qualifications alongside the more traditional disciplines pursued within universities. The establishment of Higher Technical Education on a national scale was one of the most significant educational provision advances achieved by the Irish state (Walsh, 2016).

The policy changes, combined with the impact of increased participation in the second-level education, stimulated a long-term transformation of higher education in the thirty-year period from 1950 to 1980 (Walsh, 2016). The system reformed from an elite higher education system to a system of 'universal' access (Trow, 1973), that is, a system with over 50% of the relevant school leaving age cohort accessing higher education, according to the threshold identified by Trow (1973). With these percentages in mind, it can be said that Ireland has reached a universal higher education system status, with 63.8% of the leaving certificate cohort of 2014 entering higher education (Department of Education and Skills, 2018a), rising to approximately 77% of the Leaving Certificate cohort in 2018 (Higher Education Authority, 2018a).

Today, higher education is available throughout Ireland provided by universities (n=8), Institutes of Technology (n=14) (recent name for Higher Technical Education institutions), Colleges of Education (n=11), all of which are financially supported by the State. There are also 4 private colleges in Ireland not publicly funded. This current research is carried out in 1 university in the West of Ireland. In the academic year 2016/2017 for example, 57% of new entrants were enrolled in universities and 43% in Institutes of Technologies (Higher

Education Authority, 2018a). In recent years, the percentage of students who transfer from second level to third level education continues to increase with 61.9% in 2010 to 63.8% in 2014 (Department of Education and Skills, 2018a), to 77% in 2018 (Higher Education Authority, 2018a). This growth of the Irish higher education system over the last 50 years speaks to the success of the Government efforts and the importance placed on education by Irish society. In addition, Internationally, Irish students perform highly in benchmarking such as the Organisation for Economic Co-operation and Development (OECD) PISA evaluations (Higher Education Authority, 2019). In 2017, 54% of 25- to 34-year-olds in Ireland had attained a tertiary education compared to 45% across OECD countries (OECD, 2018 in Higher Education Authority, 2019), thus gaining national and international recognition of the quality of the national education system (Department of Education and Skills, 2011).

1.4 Access to third-level education in Ireland

Equity of access to higher education is a fundamental principle of Irish education policy that has been endorsed by successive governments in policy statements and commitments over the past thirty years (Department of Education and Skills, 2015). During these past decades huge strides have been made in creating access to higher education in Ireland, resulting in a very substantial increase in the number of students entering third-level education. During the 35-year period from 1965 to 2000, the number of students in third level education in Ireland increased from 18,200 to almost 120,000 (Department of Education and Science, 2004). Now, another 20-years on, approximately 250,000 students are in higher education in Ireland (Higher Education Authority, 2018b). As previously discussed, this is due to policy change, increasing second-level education retention as well as, an increasing population of youth more generally.

The foundation of the Higher Education Authority (HEA) in the early 1970s was an important step in higher education reform in Ireland, with one of their statutory functions aimed at ‘promoting the attainment of equality of opportunity in higher education’, thus widening participation of traditionally under-represented groups (Higher Education Authority, 2018b). In addition, the publication of the National Plan for Equity of Access to Higher Education 2015-2019 was a key statement of Government commitment, building on the previous national access plans. Its vision, consistent with Government, HEA and European objectives, simply stated: “To ensure that the student body entering, participating in

and completing higher education at all levels reflects the diversity and social mix of Ireland's population" (Department of Education and Skills, 2015, p. 6).

In the past the distribution of new entrants to higher education was primarily from working and professional backgrounds, namely those students who came from higher social classes. However, in the last decade the estimated participation rates of some lower socio-economic groups, particularly the skilled manual and semi/unskilled manual worker groups have increased (Higher Education Authority, 2018c). Thus, there has been significant and sustained progress in terms of access to higher education by underrepresented groups (Higher Education Authority, 2018c) supported through larger system changes and targeted student supports including; Access programmes, DARE programmes, HEAR programmes and PATH programmes.

Access programmes are education foundation programmes specifically developed and implemented to provide an opportunity for students who are generally under-represented at third level to progress to higher education. They are designed to provide a supportive educational environment towards preparing students academically and personally for undergraduate study (e.g., National University of Ireland, Galway, 2020). Access programmes enable students to part-take in a pre-college year of learning before they transition to the first year of their studies.

The Disability Access Route to Education (DARE) is a higher education admissions scheme that offers academic programme places on a reduced points basis to school leavers with disabilities. The aim of DARE is to enable students who have the ability, to benefit from and succeed in higher education but who may not be able to meet the points for their preferred course due to the impact of their disability/specific learning difficulty, the opportunity to access this through a supported system (National University of Ireland, Galway, 2020).

The Higher Education Access Route (HEAR) is a higher education admissions scheme that offers academic programme places on reduced points and extra college support to school leavers from socio-economically disadvantaged backgrounds. HEAR is implemented in many higher education institutions due to the evidence base of the impact of socio-economic disadvantage on school completion and higher education entry. HEAR Applicants must meet

a range of financial, social and cultural indicators to be considered for a reduced points place and extra college support (National University of Ireland, Galway, 2020).

As a result, the first-year student population in higher education now is diverse, composed of students who just completed the Leaving Certificate from all socioeconomic groups, mature students (students over 23 years of age), students who enter following completion of an Access programme, who enter through HEAR and DARE programme supports, student who enter progressing from further education (education below degree level for people above school age), students with a disability and international students. A higher education system with a growing student population of increased diversity results in new student interests and needs, which oblige higher education systems to diversify structures, programmes and styles of delivery (OECD, 1997). With much of the work in Ireland to date focused on widening participation the focus now needs to shift towards supporting the higher education sector in identifying and sharing best practice, across the student lifecycle, to enable students from disadvantaged backgrounds, in particular, to succeed in higher education (Thomas, 2012).

1.5 Student support initiatives

Since the early 1980s, a range of State funded mainstream and targeted initiatives have been established to address the needs of students and to support their participation in higher education in Ireland. For several decades, a state funded student grant system has been provided by the Department of Education and Skills. It is now called the SUSI Grant (Student Universal Support Ireland) and in the last academic year 2020/2021, 71,391 students received a SUSI grant (Department of Further and Higher Education, Research, Innovation and Science, 2021) the main support from the State for students in financial need in higher education (Higher Education Authority, 2018b). In conjunction the HEA have targeted funding initiatives established for specific student groups, such as the Student Assistance Fund (SAF), the Fund for Students with Disabilities (FSD) and the Programme for Access to Higher Education Fund (PATH). Through the sustained Government prioritisation and funding allocation to these supports there is evidence of the success of these efforts through widened student access and participation in higher education in Ireland.

1.6 First-year college student trends in Ireland

Over past decades the number of post-primary school students transitioning to higher education increased from approximately 8,000 in the 1950s (Central Statistics Office, 2000),

to 36,000 in 2004 (O’Connell et al., 2006), to approximately 43,000 in 2018 (Higher Education Authority, 2020b). This is due to the expansion of this age category in Irish society, greater higher education participation due to schooling improvements, policy and funding provision, and points to great progress in terms of access to higher education in Ireland. However, of these students 14% or approximately 6,000 do not persist past first year annually (Higher Education Authority, 2016a, 2018). With so much progress made in the last half century in Ireland towards a universal higher education system, now a new higher education challenge is presented; supporting and enabling first-year student persistence.

One prominent information source in Ireland that enables monitoring and knowledge provision of the first-year student experience is the Irish Survey of Student Engagement. The survey was designed based on the established Australasian Survey of Student Engagement (AUSSE) towards evidence-focused information about student engagement in higher education (ACER, 2009). In Ireland, the ISSE survey was launched in 2013 and the resulting data provides institutions with valuable information towards identifying good practice that enhances the student experience and to prompt awareness of, and action on, student issues or challenges. The topics covered include; higher-order learning, collaborative learning, student-faculty interaction, quality of interactions and engagement (Higher Education Authority, 2020a). However, the content of the survey is limited in its coverage focusing primarily on academic and learning factors, with a reduced focus on social engagement, and no inclusion of what helps the students stay motivated, what challenges they experienced or student well-being indicators. This highlights a missed opportunity at a national level to collect valuable student well-being data, as well as first-year student data specifically related to how these students experience the transition to college.

All students who enter higher level education in Ireland have reached the necessary academic requirements to earn their place on their chosen academic programme, however, with 63% of non-completion happening during first year (Higher Education Authority, 2019) many questions arise. What is happening during the first year of college to result in almost 1 in 7 students leaving? What is the first-year experience like for these new students? What barriers and challenges do first-year students experience that make this time difficult? What promoters or positives do first-year students experience that enhance their experience and persistence efforts? What supports do first-year students need?

In addition to these questions and in recognition of the 1959 Government Commissioned Report, at the beginning of higher education reform in Ireland, stating that ‘The well-being of university education and of the country are closely linked’ (Government of Ireland, 1959, p.128), also raises the question how does student well-being impact first-year student persistence? All students enter higher education with the goal of achievement and graduation, thus the question of their well-being and how this impacts their goal is relevant. Research towards a greater understanding of the first-year college student experience, building on the information provided by the national ISSE and international counterparts, is needed to create knowledge about this transitional life stage, inclusive of the student’s perspectives. This current research aims to shed some light on these questions. In the words of Tinto (2008, p. 1) “Access without support is not opportunity”.

1.7 First-year college student well-being

The World Health Organisation define Health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2020, p. 1), recognising well-being as an integral part of health. In addition to this the Ottawa Charter for Health Promotion (WHO, 1986) stated that “Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love” (WHO, 1986, p.3), thus identifying an education institution as an ideal setting ripe for creating a supportive environment for student well-being. The Ottawa Charter (1986) also recognised education as a prerequisite for health (WHO, 1986), linking education and health as interdependent. These Charter statements are central to this current study; aiming to explore the first-year student experience towards creating supports to enable student persistence and student well-being, towards each student reaching their desired educational goal. This is calling for a new approach from an education institution perspective.

From a health perspective, it can be argued that good health and well-being is a prerequisite for educational achievement and that the education setting, because of the focus on education, is an ideal setting for young people to learn about the influences on personal and social health (Health Service Executive, 2011). Furthermore, from an educational perspective, the role of health education and health promotion contributes to the preparation of young people for participation in society (Health Service Executive, 2011), thus it can be said that promoting the well-being of youths within the education system has multiple benefits. Additionally,

well-being has important implications for students' success during and beyond higher education (Brooker & Vu, 2020).

The transitional first year of college is often considered the first time these youths take responsibility for their own health and well-being (Reider et al., 2015), due to many moving away from home and becoming more independent. Considering this, an opportunity exists within third level education institutions, as they are potentially well-placed to support and have a meaningful impact upon students' distress and well-being (Brooker & Vu, 2020). It has been found that promoting well-being during any transitional life experience can help achieve optimal developmental trajectories that extend well beyond the transition itself (Brooker & Woodyatt, 2019).

In a recently published special issue article from Australia focusing on psychological well-being and distress in higher education, Brooker and Woodyatt suggested the idea of creating college communities that have psychological literacies. These psychological literacies are a means of supporting psychological well-being, not through awareness of diagnosis but through awareness of the impact that mental health problems, of available supports and pathways of recovery, and support towards asking for, or offering, help toward those pathways (Brooker & Woodyatt, 2019). However, this concept raises two questions relevant to this research; what about focusing on health literacies in a more inclusive way, including physical, mental and social well-being? And what might student persistence literacies look like?

“Health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions” (WHO, 1998, pp. 10). Considering this definition, persistence literacies should potentially include knowledge, skills and confidence building for students to help them stay at college. With the aim of this study centred on a greater understanding of the factors that impact first-year student persistence, there is potential for this study to consider what student persistence literacies might include and how they could be implemented at a higher education institution. There is a wealth of research about student retention (see, for example, Jones, 2008; Thomas et al., 2012; Tinto, 1993), and much less on how to translate the available knowledge into activities that impact student persistence and institutional outcomes. However, we do know that academic (Thomas et al., 2017) and

curriculum-based intervention (Brooker et al., 2019) are a superior choice within a whole-institution approach thus, exploring persistence literacies, inclusive of student well-being in an applied way, could offer a potential solution.

1.8 The benefits of student persistence towards education attainment

Higher education is central to the economic renewal needed to support individual well-being and social development (Department of Education & Skills, 2011). Higher education attainment is acknowledged to have a transformative impact on the lives of individuals, on the vibrancy of our communities and the health of our economy (Department of Further and Higher Education, Research, Innovation and Science, 2021). In addition, education attainment is interlinked with the well-being of individuals and countries (Schneider & Preckel, 2017). Student persistence within academic programmes and successful graduation from higher education institutions has a significant effect on students' lives, both in terms of immediate and extended benefits including greater employment prospects (Baum & Payea, 2013), improved quality of life (Baum & Payea, 2013), improved health and health outcomes (Higgins et al., 2008), and greater societal engagement (Baum & Payea, 2013; Tinto, 1993).

Student persistence and completion also results in considerable benefits to higher education institutions including achieving institution performance indicators (Department of Education and Skills, 2018b), economic stability and overall university rankings. More broadly, education attainment too, has the potential to positively impact levels of social engagement, an important factor in generating more cohesive, safer and healthier societies (Higgins et al., 2008). In addition, societal and labour market participation, and a reduced burden on health services use due to better lifestyles (Baum & Payea, 2013; Giusta et al., 2017). The positive consequences of education and in particular higher education attainment are significant, for individuals, institutions and society. Thus, all potential individual, institutional, and societal level supports need to be understood, strategically stated with provision allocation, and worked towards in a collaborative whole-of-government approach towards improving education attainment prospects in Ireland.

1.9 Policy identification and analysis

Education policies, frameworks, and initiatives internationally, and in Ireland, inclusive of the Irish Constitution, all concur that education is a human right and that all young people

have a right to access education equitably. Thus, higher education institutions need to understand how to effectively translate strategic intentions to improve the student experience towards persistence, retention and success into activities that will most effectively impact student, department and institutional-level outcomes (Thomas, 2012). During this section I will be considering if relevant Irish policy and strategic intention enable actionable progress within higher education institutions?

The following sections outline the relevant policy and Government documents relating to higher education and well-being within the education system in Ireland. These are presented and discussed beginning with well-being, then moving onto education, and according to their publication year, beginning with the earliest;

1. Health Promotion Strategic Framework 2011 (2011).
2. The National Strategy for Higher Education to 2030 (2011).
3. National Access Plan for Equity of Access to Higher Education 2015-2019 (2015).
4. Higher Education System Performance Framework 2018 – 2020 (2018).
5. Understanding and enabling student success in higher education (2019).
6. Statement of Strategy 2021-2023 (2021).

1.9.1 Health Promotion Strategic Framework

The Health Promotion Strategic Framework (HPSF) aims to provide the Health Service Executive with an evidence-based plan towards meeting its commitments to protect and promote the health of the population (Health Service Executive, 2011). Though the framework is a decade in place, it is informed by international and national evidence of health promotion effectiveness, which remains relevant now. It outlines the provision of a health promotion model towards addressing health inequalities and the determinants of health through the three priority settings; the health services, the community and the education setting (Health Service Executive, 2011), based on best international practice (WHO, 1986; WHO, 1998). The education setting refers to pre-school, primary school, post-primary school and third level education, thus, identifying the higher education system as a setting for promotion of health and well-being, based on international evidence (Baik et al., 2019; Health Service Executive, 2011; WHO, 1998). This Framework calls for education institutions to develop and implement a nationally agreed health promotion model for the

education setting, in this case higher education institution, based on existing Health Promoting School/Colleges approaches (Health Service Executive, 2011).

In 2015, University College Cork became the first campus in Ireland to achieve the Health Promoting University status, based on the UK framework for health universities (Dooris et al., 2010). Following this in 2018, a national effort to establish a network of health promoting universities began in collaboration with the HSE. Dublin City University followed this drive, publishing their Healthy Charter towards gaining their Health Promoting University status by 2022 (Thompson, 2019). Many other higher education institutions have also implemented healthy policy changes since including; National University of Ireland, Galway, Trinity College, Dublin, University College Dublin, however these have not received official Health Promoting University status. Dr Michael Byrne, medical Director of the student health department at UCC, believes all Irish Universities have the potential to embrace and strive for the status (Thompson, 2019), calling for the implementation of an accreditation process for Irish Universities to retain their status once awarded (Thompson, 2019). Work remains nationally with just one higher education institution in Ireland with the Health Promoting University status.

As this policy identification and analysis section moves on to focus on higher education provision, the documents will be considered in relation to 4 questions;

1. What is the provision for first-year students?
2. How does this compare to international policy where relevant?
3. Is student health and well-being considered?
4. Is this policy provision sufficient?

1.9.2 The National Strategy for Higher Education to 2030

The National Strategy for Higher Education to 2030 is the central and primary national policy in Ireland for over a decade now (Department of Education and Skills, 2011). It emerged from the Irish Economic Framework document published in 2008, which aimed to build Ireland's smart economy and to transform the higher education system by 2030. However, considering the strategy is over a decade old, worry exists to its relevance now and into the future.

The strategy presents a vision of an Irish higher education sector that can successfully meet the many social, economic and cultural challenges that face society over the coming decades, and meet its key roles of teaching and learning, research, scholarship, and engagement with wider society (Department of Education and Skills, 2011). In comparison the UK national strategy aims to focus on access and student success in higher education so “all those with the potential to benefit from higher education have equal opportunity to participate and succeed, on a course and in an institution that best fit their potential, needs and ambitions for employment or further study”, (Department for Business, Innovation and Skills, 2014, p. 8). The difference in the vision of these strategies highlights the lacking student-centred approach of Irish policy provision compared to the UK.

The main elements of focus towards Irish higher education system transformation, as set out in the strategy include a focus on a more flexible system with greater choice and methods of study, improved quality of teaching and learning, improved quality of the student experience, and more connection with the social, economic and enterprise needs of society (Department for Education and Skills, 2011). Though the overall vision statement of the strategy leaves some student focus to be desired, these elements point to the importance of both the student experience and the societal links with higher education from the Irish Government. These strategy intentions do translate to areas of action for higher education institutions but could be more specific in terms of exactly what these institutions need to do.

The strategy, in section 3.4 discusses the “Transition to higher education”, of relevance to the current study. This section acknowledges many difficulties and challenges students experience during the move to higher education and recommends addressing such through secondary school curriculum reform, as well as higher education institutions addressing the “identified shortfalls in students’ skills during their first year in higher education” (Department for Education and Skills, 2011, p. 55). This phrasing within a national legislation document is not appropriate use of language. A focus on enabling students and student capacity building, such that is central to the *What Works?*¹ Student Success Model (Thomas et al., 2017), would be a more appropriate and supportive approach. Towards enhancing student skills, the strategy recommends greater availability of induction and preparation courses for first-year students, covering self-directed learning, time management, information literacy and critical analysis skills be introduced. These are well stated strategy intentions with actionable solutions. In addition, the strategy calls for collaboration between

primary, secondary and higher education, a whole-system approach, towards meaningful change, in line with best practice (Department of Further and Higher Education, Research, Innovation and Science, 2021).

In section 3.6 the strategy also specifically addresses “The first-year experience”, identifying it as critically important towards prevention of student dropout (Department of Education and Skills, 2011). As a result, Irish higher education institutions are called upon to review and reform first year curricula to; (1) provide foundational subject material, and (2) serve as a foundation of learning activities utilising more inquiry-based formats relevant to employability and lifelong learning. The strategy also includes a critical recommendation for higher education institutions, where feasible, to offer broad-based courses in the first year of undergraduate studies to allow for later selection of specialisms (Department of Education and Skills, 2011). A substantial amount of work has been ongoing within the higher education system over the last decade towards achieving these policy recommendations, which will be discussed below.

In consideration of student well-being, this strategy document fails to make a link. This is an obvious and stark absence in the primary higher education strategy towards 2030 in Ireland. The strategy does, however, refer to and acknowledge the link between education and well-being both of society and economically (Department of Education & Skills, 2011), thus acknowledging the link but failing to expand on or incorporate it. It is a worry that the policy provision until 2030 in Ireland lacks consideration for student well-being, missing the call of the Health Promotion Strategic Framework for integration.

1.9.3 National Access Plan for Equity of Access to Higher Education 2015-2019

In 2015 the National Plan for the Equity of Access to Higher Education, 2015-2019 was published by the Department of Education and Skills. This was a key development and statement of government commitment towards achieving equity of educational opportunity for all, building on earlier policy. The Plan focused on incorporating the participation and progression of many under-represented student groups in higher education in Ireland (Higher Education Authority, 2016a), aiming to close the access to higher education equality gap. The Plan identified six key groups of potential learners at risk of educational disadvantage; students experiencing socio-economically disadvantage, students with disabilities, first-time mature students, part-time/flexible learners, students with further education awards, and

students from the travelling community (Higher Education Authority, 2018b). Thus, highlighting the changing student intake profile and the resulting broader support needs.

Internationally, at European level, the Bologna Process emphasises the importance of strengthening the drive for social inclusion and ensuring that higher education is more representative of society (Department of Education and Skills, 2018b), thus many countries have designated policy or reports related to student access including the UK (Department for Business, Innovation and Skills, 2014) and Australia (Department of Education Skills and Employment, 2012). Ireland has made significant progress in terms of this national policy remit in recent decades, and since the commitment of The National Access Plan, as demonstrated in the findings of the 2018 review below.

A review of the National Access Plan published in 2018 presented some progress in terms of increased participation of students during the three-year period since the Plan funding allocation and resulting work began in 2015. In the academic year 2012/2013, 23% of new entry first-year students were from the non-manual working group, with 26% from semi/unskilled manual working group, the two lower socio-economic categories (Higher Education Authority, 2018c). This increased to 27% and 36% respectively by the academic year 2016/2017, approximately meeting the target of 30% and 35% respectively outlined in the National Access Plan. In addition, new entry students with a disability increased since 2012/2013 from 6% then to 10% in 2016/2017, reaching the National Access Plan target.

In 2016/2017 an increased number of students 20.6% were studying part-time or availing of flexible study options, just short of the targeted 22%, and in the same year a slightly increased 7.3% of students entered education based on a further education qualification, missing the National Access Plan target of 10% (Higher Education Authority, 2018c). However, participation of first-time mature students in 2012/2013 was at 19%, decreasing to 16% in 2016/2017, with a target of 24% in the National Access Plan, which has not been reached. The education policies and funding changes enacted by the Government are significant to these improved student trends over the past two decades. However, the review also highlighted work that remains considering access trends of some targeted groups, the travelling community and mature first-year students, thus the Access Plan was extended until 2021 with additional funding allocated.

Internationally and in Ireland in recent years there has been a notable shift towards the importance of analysing student progression after entry to higher education (Higher Education Authority, 2016b). In Ireland, the importance of higher education institutions enabling students from under-represented groups to gain entry to higher education and attain their education more generally is stated as a priority. This understanding is embedded in the definition of access in Irish strategy, in the National Plan for Equity of Access to Higher Education 2008-2013, “The concept of ‘access’ is understood to encompass not only entry to higher education, but also retention and successful completion” (Higher Education Authority, 2008, p. 14). This policy statement is action focused, acknowledging that once students enter only some of the work is done. However, this policy invites the question; how do the students get from entry to retention and completion, as stated? To quote Tinto (2008, p. 1) again “access without supports is not opportunity”. National policy needs to include a focus on the student experience and student supports towards creating and enabling real opportunity for completion once a student enters the higher education system.

1.9.4 Higher Education System Performance Framework

The Department of Education and Skills’ Higher Education System Performance Framework 2018-2020 was established to monitor the delivery of national priorities and the performance of the system. This presents a commitment to monitoring and provision of information on the performance of the higher education system in Ireland. This information is used by the Higher Education Authority as the context for conducting strategic dialogue with individual institutions. Thus, ensuring a systematic, coherent, but also individualised overview of each institutional part of the higher education institution system.

The various domains of the system and the institutions recorded and reported on as performance indicators include; student enrolments, math, science and computing graduates, student body representation relation to Access targeted cohorts, international student numbers, institution research outputs and citations, international merger projects and systematic public investment accountability (Higher Education Authority, 2018). The National Strategy for Higher Education to 2030 emphasises fostering coherence and maximising the performance of the Higher Education system – as a system (Higher Education Authority, 2016b). This framework enables accountability from some important higher education domains, but it excludes any student-centred domains. It fails to mention the student experience, first-year students, student supports or student well-being at any point in

the report or in relation to the system performance, a large gap in understanding the performance of any higher education institution or system.

1.9.5 Understanding and enabling student success in higher education (2019).

In recent years in Ireland work is evident in relation to a greater consideration of the student experience towards promoting student success. This is following the shift in focus of international higher education policies, for example in the UK (Department for Business, Innovation and Skills, 2014). The National Forum for the Enhancement of Teaching and Learning, a national higher education body in Ireland, stated a commitment to building a sectoral understanding of what constitutes student success in different contexts and at different stages towards December 2021. This is a welcome change in focus, rooted in international policy, but to date that has been articulated to a lesser extent in Irish policy. In September 2019, in Ireland a report, “Understanding and enabling student success in Irish Higher Education” was published by the National Forum Enhancement of Teaching and Learning in Higher Education (National Forum, 2019) stating the importance of a student success focused approach to higher education. Another important student focused step towards reorientating national policy and the higher education system in Ireland.

This report offers consideration of what student success is, stating that student success has many facets and definitions (Braxton, 2006). The report considers international literature, national policy and Irish higher education student perspective towards developing an understanding of an Irish national understanding of success (National Forum, 2019). As part of developing an understanding a national consultation process was undertaken with 1,041 higher education students through a survey, and follow-up text messages. Of particular relevance to this research is the response of 887 students to the question; ‘We know that people have different ways of thinking about success in higher education. Please explain what being “successful” in higher education means to you?’ with the top five rated domains including; skills to maximise employability, achieving high academic attainment, graduating, deepening learning/understanding and doing your best/achieving personal potential. In addition to this, students were asked to “identify the commitments they would like to see their institutions making in their student success strategies” with the top five rated domains including; to being caring/encouraging/connected, to teaching, to facilities, to health and well-being and to academic support. Transitional support was also identified by the students (National Forum, 2019), but did not appear in the top five commitments. This report is

significant in both the topic of focus and the inclusive approach adopted in consultation with students. This report is a welcome step towards understanding the higher education system from the student perspective and inclusive of factors beyond the academic, towards developing strategic intentions that are inclusive and actionable.

In addition, the provision of “Embedding student success a guiding framework” was developed for institutions (National Forum, 2019). This calls for each institution to build capabilities (e.g., enabling policy and practice, evidence-based decision making, structured professional development), culture (e.g., whole institution approach, centrality of student and their learning, meaningful relationships, and inclusivity) and enabling institutional practices (e.g., engagement and student partnership, transition and belonging, assessment and feedback) towards a whole institution approach to student success (National Forum, 2019). This is a valuable framework based on international best practice towards a higher education system with student learning and development as the core priority. To take a whole-system approach to reorganising the higher education system or a specific institution, this framework must be utilised as part of any work developing policy and strategy intentions, and the subsequent provision for actionable initiatives and programmes. This report points to the importance of student well-being, transitional support, and a focus on the student experience more broadly beyond the academic (National Forum, 2019) for future higher education reform. In the past there has been a lack of an integrated, whole-system approach to higher education policy provision, with for example education policy and health policy not linking. This student success report provides a strong footing for further reorientation of higher education policy and strategy, to include student perspectives, and student well-being towards a better student experience.

1.9.6 Statement of Strategy 2021-2023

In 2020 the Department of Further and Higher Education, Research, Innovation and Science was established with a vision to “develop Ireland’s further and higher education and research systems to support people in reaching their full potential and to create value, prosperity, resilience and a cohesive, sustainable and vibrant society” (Department of Further and Higher Education, Research, Innovation and Science, 2021, p. 5). The first Strategy of Statement from this new Department was informed by an open call national consultation process with a wide range of stakeholders (n=130 responses). However, it does not specify if students participated in this consultation. Towards achieving the goal of the Department, 6 goals were

set; developing talent and skills, promoting research knowledge and innovation, inclusion, capacity building, governance and international links. The goal of “inclusion” is the strategy intention of national relevance that has been needed within the higher education system for many years. This goal commits to a strategic review of policy “with a view to better facilitate access, progression and success for a wider and more diverse learner population at all levels” (Department of Further and Higher Education, Research, Innovation and Science, 2021, p. 11).

In addition, provision is set for “supporting learners” through the “provision of supports with a particular focus on vulnerable learners, under-represented groups and the most marginalised, to enable people to engage and stay with learning, consistently addressing a wide range of needs and recognising the importance of mental health and well-being” (Department of Further and Higher Education, Research, Innovation and Science, 2021, p11). The language used; support, enable, engage, and stay is more reflective of a policy considering the student experience towards persistence. This is a very welcome change in tone of national policy in Ireland. In addition, the inclusion of mental health and well-being in general, but also within the goal of “supporting learners” is important and points to national Government recognition of the relevance of student well-being during college years towards success.

Finally, the goal towards ensuring “policy coherence, by developing and implementing an ambitious new research and innovation strategic policy framework for Ireland, based upon whole-of-Government and wider engagement” (Department of Further and Higher Education, Research, Innovation and Science, 2021, p. 11), is an important strategy intention aimed at critically reviewing, improving and collaborating towards higher education provision in Ireland. This will be most valuable if education and well-being policy is linked for greater student, and therefore social, economic and international gains.

In 2021, the national budget for Irish Higher Education was the highest ever in the state, with an allocation over €3 billion (O’Brien, 2020). This increased allocation was in response to the difficulties 2020 brought and aimed to target improved provision of the SUSI grants, new education buildings, postgraduate students support, and an increase of 200 new PATH places for the academic year 2021/2022. In addition, the total budget for newly created Department of Further and Higher Education, Research, Innovation and Science was set at €3.3 billion for

the academic year 2021/2022 (O'Brien 2020), with many very important strategy intentions it is encouraging to see this level of funding allocated.

Despite the previously longstanding funding concerns much progress within the higher education system has been made in recent decades. However, this progress leads to the new higher education challenge of student completion, with particular importance placed on first-year student persistence. In 2016, Derek O'Byrne, registrar at Waterford Institute of Technology, believed that third level education in Ireland was at a pivotal point. He believed that the system was failing the students due to the increased student numbers and with that increased student dropout without what he deemed adequate support. In 2016, 1 in 6 first-year student left college before completion (Higher Education Authority, 2016a), now in 2020 this is 1 in 7 first-year students, approximately 6,000 annually (Higher Education Authority, 2016a, 2018) showing a slight improvement but this is not enough in a 5-year period.

In 2016, Derek O'Byrne called for a critical examination of the higher education system and the policy in this area (O'Byrne, 2016). This is now going to happen through the actionable and funded strategy statement of the Department of Further and Higher Education, Research, Innovation and Science. It is the hope that the establishment of this new Department will lead to a reorientation of the higher education system towards operating as a function of student support, enabling student persistence and success.

1.10 The problem to be addressed

As a result of the discussed changes within the higher education system during past decades, a student population of greater diversity exists. This diverse student body is inclusive of first-generation students, students from lower socio-economic backgrounds, students with mental health needs, with a disability, parents, part-time learners, mature students, and students who are re-skilling, thus presenting a greater variety of needs to enable persistence (Department of Education and Skills, 2011; Department of Further and Higher Education, Research, Innovation and Science, 2021). All students do not enter third level education equally, all students have different needs, past life and educational experiences, however all students do meet the defined academic entry criteria thus, proving they have the prerequisite skills and knowledge to engage on their chosen course of study towards obtaining a third level education. In addition, due to the diverse student population all students need varying degrees

and forms of support to persist at college towards graduation. This agreed on, the student experience within the higher education system, more specifically within this research the first-year student experience requires knowledge gathering and consideration towards better understanding student needs, what supports are required, when these supports are needed, and how to provide them.

We may be able to pre-empt some student support needs from the wealth of literature available, and in consideration of the broadening student participation trends. However, limited guidance in terms of the provision of appropriate supports, at the appropriate time to the required extent has not been addressed within policy or research in Ireland to date, like programmes such as the *What Works?* Student retention and success programme in the UK (Thomas et al., 2017). In addition, the need to consider the international importance of student well-being and mental health within support provision. In recognition of first-year student non progression, a greater understanding of the first-year student experience is needed to enable national and institutional education policies intentions with actionable solutions to support and enable students to persistence.

Reducing inequalities within the education system does not stop at improving access, students must be supported to achieve their education once they are a member of the institution (Tinto, 2017). A further shift in focus of national policy is required moving away from higher education institutions focused on student retention to a viewpoint with students at the centre and the education institution as a supportive environment focused on promoting, supporting and enabling each student's personal development, persistence towards education attainment and well-being during their enrolment. In recognition of this, this current study aims to explore the first-year student experience towards the identification of factors that impact student persistence, thus supports and a timeline for such supports to help students transition to college, persist in achieving their education, and protect and promote their well-being towards reaching their full potential.

1.11 Outline of the thesis structure

The overall structure of this thesis will use the following chapters to address the research aims:

Chapter two explores the literature on student retention and persistence within the higher education system to date and presents an in-depth explanation of the theoretical framework guiding this current study. Secondly, this chapter discusses recurring factors with the potential to impact student retention and persistence emerging from past research. Thirdly, first-year student well-being and the relevance of student well-being to academic success within the literature is discussed. Fourthly, two theoretical frameworks from the literature focused on student health promotion are explored towards an understanding of the broader context of student well-being. Finally, this chapter outlines the rationale for this study, concluding with the study aims, objectives and research questions expressed.

Chapter three outlines the methodological basis of the study, highlighting the chosen multi-methodological design and the rationale for this design in relation to the study research questions. The chapter explains how each of the three studies included in the overall study were designed, implemented, and analysed using a multi methods approach.

Chapter four peer-reviewed paper one is presented. This paper explores the need to incorporate well-being as a predictor in traditionally academically focused models of student persistence during the transition to college utilising a cross-sectional web-based survey with first-year students. The study highlights the connection between student academic, social and well-being variables during the transition to college within the fitted models that emerged from the data.

Chapter five peer-reviewed paper two is presented. This study investigated the impact of early first-year student well-being on student commitment and integration at the end of first year at college. Longitudinal quantitative research was conducted at two time points with a sample of 187 first year students, thus concluding that there is a connection between student well-being and student commitment and integration during the transition to college, with student depression, self-rated health and cannabis use emerging as significant predictors.

Chapter six peer-reviewed paper three is presented. This paper aims to explore the promoters and barriers to first year persistence, the student support needs in relation to these promoters and barriers, who they need the support from and when they need the support, utilising a participatory research approach in partnership with students with a group of 28 second year students retrospectively exploring first-year in college. Several participatory workshops were conducted with the students identifying many promoters and barriers to first year student persistence, along with identification of support solutions.

Chapter seven provides a discussion of the findings of this research. This chapter will integrate and elaborate on the findings reported in the three peer-reviewed published journal articles and discuss these in the context of existing literature. This chapter presents a Student Persistence Model as an integrative model to consider student persistence based on the findings of this research. This chapter outlines the implications of this research to policy and practice, recommendations for further research, and concludes with limitations and strengths of the research.

Chapter 2 Literature Review

2.1 Introduction

This chapter will explore the literature on the first-year student experience at college, resulting in a synopsis of the primary factors with the potential to impact the student experience in terms of persistence and retention. The terms student retention and persistence will be discussed, explaining how these concepts relate to each other within this area. A brief description of the historical development of student retention models will be provided followed by an in-depth explanation of the Institutional Departure Model (Tinto, 1975, 1993) which conceptually frames the approach of this research.

Following on from this, first-year student well-being during the transition to college will be explored. In addition, an examination of the link between student achievement in education and student well-being will be provided. Next, this chapter will explore the usefulness of the Ecological Model for Health Promotion (McLeroy, 1988), as a potential approach to understanding the factors impacting first-year student persistence within a whole campus approach. This chapter will conclude with a statement of the aims and the research questions of this current study.

2.2 The first-year student transition to college

A transition is “any event or non-event that results in changed relationships, routines, assumptions, and roles” (Goodman et al., 2006, p. 33). The move from post-primary school to college is widely known and accepted as an anticipated transitional life stage or event many young people experience. This is often an exciting life stage for young people in Ireland and internationally, with many transitioning from adolescents to young adulthood, but it is also a critical stage “as students seek to adjust to the heightened demands of university study” (Tinto, 2017, p. 3). This transitional time is the cause of change in the daily lives of these young people, in terms of greater independence, more personal responsibility, potentially moving away from home, changing academic experiences and expectations and new social environments, with the potential to create valuable opportunities for growth and change (Hicks & Heastie, 2008). However, this transitional time can also bring developmental challenges and stressors which in turn have the potential to impact the students experience,

and their well-being (Conley et al., 2013). Thus, proving the importance of understanding in much greater depth, and as a broader concept the transitional first year of college and how students experience it.

2.3 Focus on first-year students

The literature identifies first year in college as a critical year for students to prepare themselves for a positive student experience (Hughes & Smail, 2015; Woosley & Miller, 2009; Pascarella & Terenzini, 1991), thus first year is a critical timeframe for offering supports towards students reaching graduation (Tinto, 2006; Tinto, 2017). The character of the student experience in first year has the potential to considerably impact subsequent persistence (Tinto, 2006), with most of all student withdrawal taking place in the first year of college (Tinto, 2006). Thus, the first-year student transition to college and the first-year student experience holds the key to understanding how to support students to education attainment. In consideration of this, this current study aims to broadly explore the first-year experience, with the inclusion of the consideration for well-being, to contribute to the available literature, and thus the solutions towards supporting student persistence.

2.4 Student retention and student persistence – what is the difference?

There are many important terms used when discussing, describing and explaining the higher education student experience and the related student outcomes. Of particular relevance to this current study are the terms student retention and student persistence. These terms are often used interchangeably within the literature, and within individual papers and reports to explain how higher education students progress within the institution, or how they reach graduation (Hagedorn, 2005; Thomas, 2012; Thomas et al., 2017; Troxel, 2010). However, these terms differ in their meaning and perspective.

Retention refers to an “education institution’s ability to keep a student from enrolment to graduation” (Bergen & Lyons, 2005, p. 7). When referring to retention the actions of the education institution are conducted to keep their students enrolled at their institution. A number of indicators are used to track retention from the institutional perspective, including continuous enrolment to the second year of college, length of time to degree, grades, and attainment of a degree (Kuh, 2007). Thus, Mortenson (2005) describes retention as a

reporting and tracking indicator from the institutional perspective. Student retention has been researched for many years, starting in the 1960s. In the beginning much of the research was linked with student withdrawal, student attrition and dropout, and undesirable outcomes of attending higher education (Tight, 2020). However, in the last decade such research has changed focus to a positive and strengths-based viewpoint of the student experience with the concepts of interest including; Student engagement (Thomas et al., 2017; Tight, 2020), student belonging (Ben-Avie & Darrow, 2019; Thomas et al., 2017), student self-efficacy (Tinto, 2017), and student success (Naylor, 2017). Hence the growing and more recent interest at a higher education institutional level is from a more student-centred viewpoint with consideration for a positive student experience to the forefront.

Student persistence is defined as the desire and associated action of a student to earn a degree from a higher education institution (Bergen & Lyons, 2005; Troxel, 2010), and is understood to be a manifestation of motivation from the perspective of students (Bandura, 1989; Graham et al., 2013). Tinto refers to student persistence as a quality that allows a student to continue towards their goal of degree completion even in the face of challenges (Tinto, 2017), again linking student persistence closely with a student's motivation to continue. Mortenson (2005) describes persistence as a student-initiated decision, and Tinto states that "a student has to want to persist to degree completion to expend considerable effort to do so" (Tinto, 2017, p. 2). Thus, student persistence is a result of a student want or motivation to persist and the resulting actions they take to persist. To take this perspective into consideration, higher education institutions need to understand how they can impact or improve student motivation and what support they can provide to promote and enable actions towards persistence. This current research aims to add to the available literature on first-year student persistence in this context.

This literature considers student persistence and retention to be two integral parts of the higher education system success. However, understanding, promoting and enabling student persistence comes first. This establishes a need for higher education institutions to go beyond a focus on students withdrawing, to a focus on the student experience and optimising their education environments. The basis of this research is within a student persistence perspective.

2.5 Why is student persistence and education attainment important?

Student persistence and retention within higher education has a significant effect on students' lives, both in terms of immediate and extended benefits (Baum & Payea, 2013). The individual is likely to benefit from a higher education through greater employment prospects (Baum & Payea, 2013; Thomas, 2009), increased earning potential (Baum & Payea, 2013), improved health outcomes (Higgins et al., 2008), and greater societal engagement (Baum & Payea, 2013; Tinto, 1993). In addition to individual gains, there are also considerable benefits to third level institutions including university quality assurance (Chrysikos et al., 2017) and funding gains through maintained student fees. There are also many society-level benefits to higher education participation including increased labour market participation (Baum & Payea, 2013), the resulting economic gains (Thomas et al., 2017) through taxes, and increased community participation (Thomas, 2012). Adults with higher levels of education are more likely to have healthier lifestyles and therefore reduce health service use and the associated costs (Baum & Payea, 2013; Giusta et al., 2017; Higgins et al., 2008). With so many documented benefits to higher education attainment it is important that institutions and policy makers understand how to support students to persist towards their educational goals, thus this study aims to add valuable first-year student data to the existing knowledge base.

2.6 Student retention theory

A great deal of work, particularly in the U.S., has been devoted to modelling and predicting student retention (Tight, 2020). Amongst the earlier researchers, Tinto (1975, 1993) and Bean (Bean, 1980; Bean & Metzner, 1985) have been particularly influential.

2.6.1 The historical development of Student Retention Theory

This work modelling and predicting student retention can be divided into two groupings based on the focus and rigour of the work. The first grouping, inclusive of work prior to 1950 lacked a 'systematic approach towards student retention' (Aljohani, 2016, p. 2). This work adopted a more individually focused psychological approach, omitting consideration of the interactions of the student with their environment (Bayer, 1968; Feldman & Newcomb, 1969). This early work often explained student attrition with student characteristics, personal attributes and shortcomings (Berger et al., 2012; Habley et al., 2012). Spady, a well-regarded

author in this field, believed these approaches lacked “theoretical and empirical coherence” (Spady, 1970 p. 64).

The second grouping refers to the work from 1960 onwards, with an obvious shift in focus towards the development of theoretical models focused on linking the individual aspects of the student and the interaction of the student with the college environment (Bean, 1980; Terenzini & Pascarella, 1977; Tinto, 1975; Tinto 1993; Spady, 1970), with the social and academic systems within college prominent concepts (Spady, 1970).

The Institutional Departure Model (Tinto, 1975, 1993) and the Student Attrition Model (Bean, 1980, 1982) are two of the major and most recognised and cited models of student retention (Cabrera et al., 1992), providing a comprehensive theoretical framework on college departure decisions. Tinto’s model, drawing on the theoretical foundations of Durkheim’s suicide theory in the field of sociology, theorises that student pre-entry attributes help them form educational commitments and goals, with which they enter a higher education institution. From this point their academic and social interactions and subsequent integration within the institution impacts their commitments leading to a decision to persist or withdraw. Initially Bean was critical of Tinto’s model, suggesting it was a model of correlation, lacking analytical explanation for students’ reasons to withdraw (Aljohani, 2016). In addition, Tinto’s model was also criticised due to the omission of the consideration of external factors (e.g., family, work commute) (Cabrera et al., 1992).

In 1980, Bean developed a Model of Student Attrition based on the concept of labour turnover from the field of human resources (Price, 1977), linking the process of student attrition in academic institutions to the process of employee turnover in workplace. Variations of the model have been tested and theorised by Bean and colleagues (Bean, 1980, Bean 1982; Bean & Metzner, 1985) with the results largely supportive that a student attrition model must contain four main categories of factors; student background variables (e.g., socioeconomic status), along with organisational (e.g., institutional fit, opportunity to transfer), environmental (e.g., family approval) and attitudinal variables (e.g., goal commitment, intent to persist). Tinto’s and Bean’s models have several commonalities in that they both regard persistence as the result of a complex set of interactions over time, they agree that pre-college characteristics affect student adjustment, and they agree that persistence is affected by the successful match between the student and the institution

(Hossler, 1984). However, the main difference at the time was the consideration for external commitments, which the literature concluded were important to persistence (Bean, 1982).

When exploring of the value of Bean and Tinto's models, Cabrera et al., (1992, 1993) tested the idea of the convergence of the Student Institutional Departure Model with the Student Attrition Model. This research examined the similarities and the discriminant validity between these two theoretical models (and their similar constructs) with the aim to determine if integrating these two key theories could enhance the learning about student attrition in higher education. The longitudinal study of 446 first-year students revealed that the variables of both theoretical models significantly overlapped but concluded that Tinto's model was more robust with a greater number of confirmed hypotheses (Cabrera et al., 1992). In a follow-on study in 1993, Cabrera and colleagues concluded that environmental factors play a more complex role in the student retention process than was considered by Tinto, thus suggesting the integration of the two models towards providing a better explanation of the student attrition process. This work resulted in Tinto revising the Model of Institutional Departure in 1993 to include consideration for external commitments and external communities, thus, making the model more comprehensive. While Bean remains a highly regarded author in the area, Tinto's model appears to have had the greatest impact (Tight, 2020).

2.6.2 The Institutional Departure Model

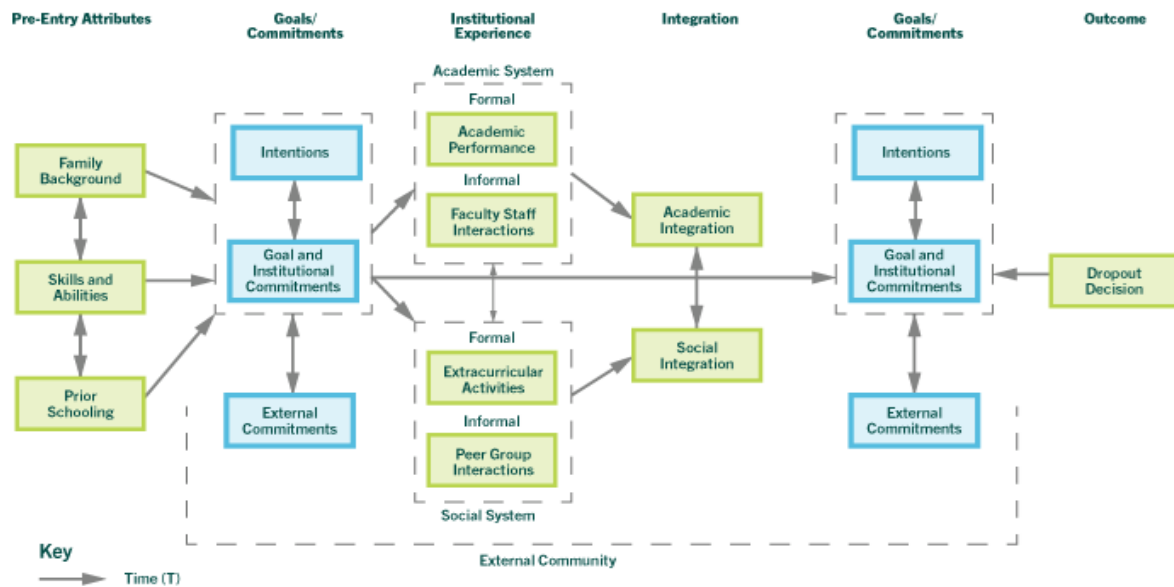
Vincent Tinto's Model of Institutional Departure is the most recognised, influential (Heaton-Shrestha et al., 2009; McCubbin, 2003) and cited model within the literature (Chrysikos et al., 2017). It is a theoretical, longitudinal and interactional model explaining the processes of interaction between the student and the institution that lead to student retention or withdrawal from higher education. Thus, acknowledging the student persistence process comes before reaching a point of retention or withdrawal.

As seen in Figure 1 below, The Institutional Departure Model begins by identifying that each student has pre-entry attributes upon entry to college, including family background, personal skills and abilities, and prior schooling experiences, and these attributes shape the initial goals and commitments each student enters college with (Tinto, 1975, 1993). Upon entry to college, each student embarks on a longitudinal process of interactions with the academic and social systems of the institution and these interactions continuously modify their academic and social integration, by weakening or strengthening the student's level of commitment thus

bringing them to a decision to persist or withdrawal (Tinto, 1975, 1993). Tinto edited the model in 1993 to introduce the term intentions at the pre-entry college level. Intentions refers to the student's goals and these are impacted by their level of commitment (Tinto, 1993). In addition, Tinto also added the concept external commitments, such a job and family commitments, theorising these have the potential to impact both initial and subsequent levels of goals and commitments (Tinto, 1993).

Figure 1

Tinto's Longitudinal Model of Institutional Departure



Note. From *Leaving College: Rethinking the Causes and Cures of Student Attrition* (p. 114), by Vincent Tinto, 1993, (2nd ed.). Chicago: University of Chicago Press.

2.6.2.1 Pre-entry attributes

The Model of Institutional Departure theorises that students have several pre-determined individual characteristics and dispositions relevant to educational persistence referred to as pre-entry attributes. These are in three distinct categories: Family background (e.g., socioeconomic status, education level), skills and abilities (e.g., personality and attitudinal traits), and pre-college schooling (e.g., post-primary school experiences, academic and social

attainment, grade-point average). Each student enters college with these factors already determined and these have an impact on their goals and commitment (Tinto, 1975, 1993).

2.6.2.2 Pre-entry student intentions and commitment

The model identifies that each student has their own level of education intentions (Tinto, 1993), and commitments, namely institutional commitment and goal commitment (Tinto, 1975) prior to college entry. Intentions refer to the level and type of education and occupation desired by the student (Tinto, 1993) and commitment indicates the degree to which a student is committed to the attainment of the goal (goal commitment) and to the educational institution they wish to enrol in (institutional commitment). Institutional commitment refers to a student's direct commitment to attend one higher education institution over another for their own specific reasons (e.g., attending law school or a prestigious private university attended by members of one's family). Tinto hypothesizes that in terms of influence on persistence, a high level of commitment to the goal of graduation may have the potential to compensate for a low level of commitment to the institution, and vice versa (Pascarella & Terenzini, 1983), thus, these constructs are linked, and one can compensate for the other weakening.

2.6.2.3 External Commitments and Communities

External commitments are considered to be outside of the education institution, for example personal desires, family, jobs and peers, but remain important due to their potential impact on the student's intentions and goal and institutional commitments (Tinto, 1993). External communities, for example family and work communities, are communities a student is part of outside of their college life. When external communities are strong their actions may serve to condition (e.g., strong family support towards educational achievement) or counter persistence (e.g., through their impact on social or academic integration within the college) (Tinto, 1993). Thus, external commitments can serve to reinforce persistence.

Given individual attributes, commitments and dispositions at entry the Model of Institutional Departure theorised that subsequent experiences within the education institution are centrally related to further continuance in the institution (Tinto, 1993). The institution environment consists of two systems that are very important towards enhancing the likelihood that an individual will persist are; the academic and social systems (Tinto, 1993). The model theorises that a student needs to have interactive experiences within both systems due to the

impact of these experiences on reformulation of student individual commitments (Tinto, 1975, 1993).

2.6.2.4 The academic system

Each student's interaction with the academic system of the education institution is a critically important factor towards student persistence and retention. This system comprises of formal academic factors including researching topics in the library, attending labs and classes, and engagement in various activities related to academic success (Chrysikos et al., 2017) and informal academic factors, including student interaction with staff and fellow students (Tinto, 1993). Student interaction with staff and faculty members outside the class hours can have a positive effect on student retention, normalising students' socialisation with the attitudes and values of the education institution (Chrysikos et al., 2017). Academic integration can be measured in terms of both a student's grade performance (formal) and their intellectual development and growth (informal) during the college years. Although both formal and informal academic interactions contain structural and normative components, the former relates more directly to the meeting of certain explicit standards of the academic system, and the latter pertains more to the individual's identification with the norms of the academic system (Tinto, 1975).

2.6.2.5 The social system

Each student's interaction with the social system of the education institution is a critically important factor towards student persistence and retention. This system comprises of formal social experiences including extracurricular activities, and informal social experiences including peer group interactions (Tinto, 1993). Successful encounters in these areas result in varying degrees of social communication, friendship support, faculty support, and collective affiliation, each of which can be viewed as important social interactions that modify a student's social integration and therefore their commitment (Tinto, 1975). Social interaction with peers has the potential to both assist and detract from continuation in college.

Academic and social integration are linked, impact each other and are very important parts of the longitudinal process that leads to persistence or withdrawal, higher levels of interaction can lead to higher levels of student persistence to graduation (Tinto, 1993). As identified by the UK-based *What Works?* student retention and success project, "it is the human side of higher education that comes first – finding friends, feeling confident, and above all, feeling part of your course of study within the institution" (Thomas et al., 2017, p. 3). This project

included 13 higher education institutions across the UK, utilising many research methodologies, higher education data and student data, and concluded that academic and social integration are critically important to student success.

2.6.2.6 The final decision to persist

Considering individual characteristics, prior experiences, and commitments, the model argues that it is the student's integration into the academic and social systems of the college that most directly relate to their persistence or withdrawal from college. If a student experiences informal and formal social and academic integration, they can re-examine their commitments, goals and intentions (Chrysikos et al., 2017), towards making the decision to persist or withdraw. Withdrawal within the Institutional Departure Model means the student leaves the institution, rather than the student abandons their higher education altogether (Tinto, 1993).

This model is valuable as it explains the key factors from the literature to consider, while adopting a longitudinal interactional approach towards understanding student persistence or withdrawal from their education institution. The model regards persistence or dropout behavior primarily as a function of the quality of a student's interactions with the academic and social systems of the college (Pascarella & Terenzini, 1980). The Tinto model is still used by higher level educational institutions as a reference model for approaching student withdrawal, providing educational institutions with a way of organising and directing both, the study and the analysis of the problem, towards solving it (Carmo Nicoletti, 2019).

2.6.3 Credibility of Tinto's Institutional Departure Model

The Model of Institutional Departure (1975, 1993) has been subject to extensive testing and examination over the last four decades and has been cited in many studies investigating student retention and attrition (Aljohani, 2016). In these studies, the constructs, hypotheses and postulations of the models were adopted, tested and critiqued (Berger & Braxton, 1998; Braxton & Lien, 2000; Brunsdon et al., 2000; Cabrera et al., 1992; Cabrera et al., 1993; Caison, 2007; Chrysikos et al., 2017; Davidson & Wilson, 2013; Kerby, 2015; Longwell-Grice & Longwell-Grice, 2008; Mannan, 2001; McCubbin, 2003; Mechur Karp et al., 2008; Napoli & Wortman, 1998; Pascarella & Terenzini, 1980, 1983, 1991). These studies adopted and tested Tinto's model in different college systems and environments, (e.g., community college in Mechur Karp et al., 2008 and in a university in Cabrera et al., 1993), with various

student groups (e.g., first-generation students in Longwell-Grice & Longwell-Grice, 2008), with Black and immigrant students (Thomas, 2011), and with disadvantaged students (Mechur Karp et al., 2008), speaking to the adaptability of the model within the field.

This wealth of research consists of quantitative research (Berger & Braxton, 1998; Braxton & Lien, 2000; Cabrera et al., 1992, 1993; Chrysikos et al., 2017; Mannan, 2001; Napoli & Wortman, 1998; Pascarella & Terenzini, 1980, 1983), utilising cross-sectional (Chrysikos et al., 2017; Mannan, 2001), and longitudinal (Berger & Braxton, 1998; Cabrera et al., 1992, 1993; Napoli & Wortman, 1998; Pascarella & Terenzini, 1980) research designs. It also includes qualitative research (Longwell-Grice & Longwell-Grice, 2008; Mechur Karp et al., 2008), pointing to the breadth of its examination of the model within the literature. The majority of this research was carried out with first-year students (Berger & Braxton, 1998; Cabrera et al., 1992, 1993; Chrysikos et al., 2017; Longwell-Grice & Longwell-Grice, 2008; Mechur Karp et al., 2008; Napoli & Wortman, 1998; Pascarella & Terenzini, 1980, 1983) pointing to the suitability of its use with this student cohort. This research is mainly U.S.-based (Berger & Braxton, 1998; Braxton & Lien, 2000; Brunnsden et al., 2000; Longwell-Grice & Longwell-Grice, 2008; Mechur Karp et al., 2008; Napoli & Wortman, 1998), with a large amount of international research subsequently utilising the model speaking to its international recognition within the field. This extensive and varied research points to the validity of the model (Chrysikos et al., 2017; Pascarella & Terenzini, 1980) and much of the research confirms the theorised interactions within the model (Chrysikos et al., 2017; Longwell-Grice & Longwell-Grice, 2008; Meeuwisse et al., 2010; Pascarella & Terenzini, 1983).

One of the most consistent criticisms of Tinto's model is that it is applicable mainly to students who enter college directly after leaving school, who are full-time and resident at the college (Bean & Metzner, 1985; McCubbin, 2003), thus, traditional students within the U.S. model of undergraduate higher education. As a result, it has been proposed that the Tinto model is not generalisable beyond these students due to the importance it places on social and academic integration, which has the potential to be experienced differently for part-time, commuting students, for example. While this criticism may be valid to some degree, it is also valid to say that it is unlikely that any one model could account for every conceivable reason, that every departing student could have for leaving higher education (McCubbin, 2003).

Thus, a model that can effectively describe the attrition behaviour of a traditional student type is a success in its own right (McCubbin, 2003). The Institutional Departure Model provides a

comprehensive framework of the important factors for consideration for this current research towards exploring the first-year student experience. While the literature towards understanding the process of student persistence and retention is comprehensive as discussed, the models and theories do not include the consideration of student well-being within the process of interactions at college. This current research aims to address this gap in the literature.

2.7 Student retention and persistence literature

The previous section described the development of student retention models, discussed the Institutional Departure Model in-depth as the relevant guiding theory for this research, thus explaining the interactional process of student persistence and retention. Building on the theorised models, a wealth of empirical research has been conducted to explore the factors with potential to impact the student experience in higher education, towards education attainment, see for example (Adams et al., 2016; Ben-Avie & Darrow, 2019; Bozick, 2007; Carolan & Kruger, 2011; Chemers et al., 2001; Eivers et al., 2002; Georg, 2009; Hughes & Smail, 2015; Ketonen et al., 2016; Krumrei-Mancuso et al., 2013; Moore-Cherry et al., 2015; Munro & Fisher, 2004; Napoli & Wortman, 1998; Naylor, 2017; Oseguera & Rhee, 2009; Pascarella & Terenzini, 1980; Porter & Pryor, 2007; Redmond et al., 2011; Sweeney, 2016; Thomas, 2012; Woosley & Shepler, 2011; Yonghong, 2016).

2.7.1 Overview of the research

Much of this research has been carried out in the U.S. (Adams et al., 2016; Ben-Avie & Darrow, 2019; Chemers et al., 2001; Ketonen et al., 2016; Krumrei-Mancuso et al., 2013; Porter & Pryor, 2007; Ryan & Glenn, 2004; Napoli & Wortman, 1998; Woosley & Shepler, 2011; Yonghong, 2016), with research from Australia being published more in recent years (McCluskey et al., 2019; Naylor, 2017), along with research in Europe (Ketonen et al., 2016; Larsen et al., 2013), the UK (Hughes & Smail, 2015; Thomas, 2012; Thomas et al., 2017), and Ireland (Eivers et al., 2002; Moore-Cherry et al., 2015; Redmond et al., 2011; Sweeney, 2016). The majority of research is quantitative (Adams et al., 2016; Ben-Avie & Darrow, 2019; Chemers et al., 2001; Krumrei-Mancuso et al., 2013; Napoli & Wortman, 1998; Naylor, 2017; Sweeney, 2016), inclusive of both longitudinal (Ben-Avie & Darrow, 2019; Chemers et al., 2001; Napoli & Wortman, 1998), and cross-sectional (Adams et al., 2016; Ben-Avie & Darrow, 2019; Sweeney, 2016) research designs.

In addition, many qualitative research studies exist (Brooker et al., 2017; Hughes & Smail, 2015; Moore-Cherry et al., 2015; Redmond et al., 2011), with some recent studies adopting Action Research methodologies (Richkard et al., 2018; Sadowski et al., 2018; Varnham et al., 2018) to gain greater student involvement. The primary research study cohort engaged with are first-year students (Ben-Avie & Darrow, 2019; Hughes & Smail, 2015; Naylor, 2017) from a variety of disciplines (e.g., STEM, nursing studies, engineering), with representation from students who have withdrawn evident in the literature (Moore-Cherry et al., 2015), towards understanding student retention, persistence and withdrawal. This extensive and international research base speaks to the level of interest and willingness of researchers in the area and education institutions to gain a greater understanding of the complex student-institution relationship. Research on this topic in Ireland is not as comprehensive as other neighbouring countries, like the UK for example, thus an important aim of this current research is to add to the available knowledge on the student experience in Ireland.

2.7.2 Important student retention and persistence factors

The literature in this area began with a focus on student retention, from an academic and institutional viewpoint. This research primarily took the view of the education institution towards trying to understand what was impacting student withdrawal or progression to identify solutions. Due to this viewpoint, a wealth of research exists utilising institutional measures (e.g., retention from year 1 to year 2, exam results, GPA, graduation rates) as the dependent variables or outcomes of interest, assessing how one or more student persistence constructs (e.g., first-generation status, social experiences, academic experiences, faculty-student interaction) relate to retention (Hurtado et al., 2007; Kraemer, 1997; Meeuwisse et al., 2010; Nakajima et al., 2012; Napoli & Wortman, 1998; Oseguera & Rhee, 2009; Pascarella & Terenzini, 1980). This primarily U.S.-based research proved the variety of factors with the potential to impact retention.

The use of student continuation data (progression from year 1 to year 2 of study) and student completion data to assess and understand student retention trends (Picton et al., 2018) is commonly used by higher education institutions. However, similar to the empirical research identified above, this provides little information towards identifying possible solutions for higher education institution towards promoting student persistence. Continuation and completion data remain useful as institutional indicators of student progression, however, this is arguably a narrow perspective of student persistence and retention as this data represents

one aspect of a complex process within which numerous factors impact the student experience and therefore persistence and retention (Bean & Eaton, 2000; Tinto, 1993). A focus on improving binary outcomes such as completion and progression rates impose an institutional criterion for success that may not be consistent with the individual ambitions, values or talents of each student (National Forum, 2019).

Since retention models such as the Institutional Departure Model were developed the term “academic and social integration” have become synonymous with student retention (Davidson & Wilson, 2013), and have both formal and informal aspects as described previously (Tinto, 1993). There is also a wealth of research exploring student academic and social integration at college (Adams et al., 2016; Davidson & Wilson, 2013; Kraemer, 1997; Lakhali et al., 2020; Pascarella & Terenzini, 1983), with the literature “clear that campus relationships matter to student persistence” (Davidson & Wilson 2013, p.1).

The work of Vincent Tinto highlights the importance of academic interaction as well as social interaction towards integration (Tinto, 1993), and this has been strongly supported by the findings from the UK *What Works?* project and other institutional research internationally (Adams et al., 2016; Mannan, 2001; Thomas, 2002; Wilcox et al., 2005). Social integration appears to be a very powerful factor in helping students to remain (Thomas, 2012), with friendships and peer relationships identified as promoting academic integration and belonging, the student’s confidence as a learner and student motivation to stay (Thomas, 2012). However, this is secondary to each student feeling they are part of their course of study and the institution (Thomas et al., 2017). Though this consensus in the literature points to the importance of academic and social integration, much of this research was not designed to provide specific information for institutions towards effective interventions. This current research aims to add to the literature on support or action-focused suggestions, specifically addressing this within Study 3, the participatory research.

There is also considerable agreement within the literature that commitment is related to persistence, however differences in the definition and measurement of commitment exist (Savage et al., 2019). Numerous studies explore student commitment in college (e.g., Berger & Milem, 1999; Brower, 1992; Coleman, 2010; Mizusawa et al., 2012; Southcombe et al., 2015), with many in agreement that student commitment is associated with retention (Berger & Milem, 1999; Brower, 1992; Pike et al., 1997). In addition, the literature agrees that subsequent commitment is impacted by the social and academic experiences and integration

of the student within the higher education institution (Tinto, 1993). Thus, commitment is an important concept within higher education (Cownie, 2019).

In a recent UK-based quantitative research study, 1,474 students completed a survey assessing their commitment. For this study commitment was considered to be affective commitment encapsulating students' ongoing desire to be connected with their institution of study (Cownie, 2019), and did not include student commitment to their education more generally (Tinto, 1993). The study found that commitment balance was the most important driver of students' ongoing attachment to their institution, with commitment balance occurring when a student's commitment to their university is perceived to be reciprocated by the university's commitment to the student (Cownie, 2019). Though the construct of commitment utilised in this study focuses on student commitment to the institution only, this research points to the importance of student-institution relationship building. The research proposes that work enabling a greater understanding of commitment within higher education is of value (Cownie, 2019). This current research aims to add to this knowledge in terms exploring the factors with the potential to impact student general commitment to higher education and to the higher education institution, inclusive of well-being in Study 1 and Study 2.

Overall, the literature is in consensus that there is rarely a single reason why students leave college (Crosling et al., 2009), with each situation more likely to be a complex picture of inter-related factors that lead to student withdrawal (Nelson et al., 2009). The literature is also in consensus that student persistence is a process of interlinked processes that have the potential to strengthen or weaken the likelihood to persist (Tinto, 2017). Bean (2005) identified nine common factors or themes emerging from the literature. These link very closely with the constructs of the Institutional Departure Model (Tinto, 1975, 1993), a cornerstone model in the literature and the guiding theoretical model for this current research. Thus, ten prominent and re-emerging student retention and persistence factors are presented in Table 1 below. The table presents the factor name, a brief definition and some relevant examples.

Table 1*Important Student Persistence and Retention Factors*

Factor	Definition	Examples
Student demographics	Demographic information about the student.	Gender Age Race
Family background	Information about the student's family.	First generation status Socioeconomic status
Skills and abilities	Personal student skills and abilities they enter college with.	Intellectual e.g., study skills Social skills
Prior schooling	Pre-college educational experience & performance.	Academic ability Rigour of school curriculum Academic success in school
Intentions	The level and type of education desired by the student.	Education aspirations
Commitments	The extent to which a student feels committed to their education goal and their educational institution.	Goal commitment Institutional commitment Self-efficacy
External commitments	Student commitments outside of the education institution.	Family obligations Finances Work
Academic experiences	The type and level of academic experiences the student encounters.	Classroom interactions Faculty interactions Academic performance Curriculum/ Academic course Institution match
Social experiences	The type and level of social experiences the student encounters.	Peer interactions Extracurricular activities
Integration	Feeling part of the academic and social environments of the education institution.	Academic integration Social integration

These factors are important towards understanding and supporting the first-year college experience in reference to persistence and retention. There is no argument to remove these factors from the consideration and efforts of education institutions towards student retention (Tinto, 2017). However, many of these factors are student factors before entering college, some are not malleable in general (e.g., family background, pre-college schooling), and others are not within the education institution ability to change (e.g., external commitments). Thus, highlighting the importance of higher education institutions understanding the first-

year student experience from the student perspective increasing their understanding and therefore ability to address factors that are within their control. To achieve this, higher education institutions need to ask what they know about the forces shaping the student experience and student motivation to persist, identifying which of these are within the institution's ability to influence (Tinto, 2017).

2.8 Student Success

Student success has become a widely discussed and important concept in higher education. In earlier literature, "success" was often considered in terms of academic performance or retention (Willingham, 1974; Yorke & Longden, 2004), with other factors that moderated retention, such as sense of belonging considered secondary (Naylor, 2017). However, the understanding of student success has changed considerably in recent years.

In Ireland student success involves a process towards optimising "the learning and development opportunities for each student to recognise and fulfil their potential to contribute to, and flourish in, society" (National Forum, 2019, p. 28). The *What Works?* project understood success to involve "helping all students to become more engaged and more effective learners in higher education, thus improving their academic outcomes and their progression opportunities after graduation" (Thomas, 2012, p. 10). Both of these understandings of success are broad, student-centred, student knowledge development and potential-reaching focused. In addition, the specific reference to the focus on optimising learning and helping students become more engaged learners, suggests a close link with student persistence. "Student success shifts the perspective of education from product to process" (National Forum, 2019, p. 26). This shift in focus has brought the student experience and promoting student persistence to the forefront of higher education institution attention. Thus, this current research aims to add to the growing literature on student persistence, in terms of understanding the student process during first year at college and how to better support students towards their educational attainment.

2.9 Important factors for promoting student persistence

Building on the earlier work of Bean & Eaton (2000), Tinto suggests that there are three key dimensions with the potential to impact student motivation that are essential to persistence.

These are a sense of self-efficacy, a sense of belonging, and the perceived value of the curriculum (Tinto, 2017). In addition to these, the importance of student engagement to student persistence and retention has been highlighted within the literature (Kuh, et al., 2008; Kuha & Nelson, 2017; Thomas, 2012; Thomas et al., 2017) and will also be discussed as an important factor.

2.9.1 Self-efficacy

Self-efficacy refers to a person's belief in their ability to succeed at a particular task or in a specific situation (Bandura, 1977). Academic self-efficacy refers to students' confidence in their ability to carry out academic tasks e.g., preparing for exams and academic writing (Zajacova et al., 2005). An extensive body of research has shown that academic self-efficacy is positively associated with grades in college (Bong, 2001; Hackett et al., 1992; Zajacova et al., 2005), and with retention (DeWitz et al., 2009; Honicke & Broadbent, 2016; Lent et al., 1986).

Student self-efficacy beliefs are said to affect their college outcomes by increasing students' motivation and persistence to master challenging academic tasks and by fostering the efficient use of acquired knowledge and skills (Bandura, 1993). A strong sense of self-efficacy has the potential to promote educational goal attainment, while a weak sense can undermine it (Tinto, 2017). A weakened sense of self-efficacy, caused by perceived stress about college work for example (Hackett et al., 1992), has the potential to impact educational goal attainment. As a result, self-efficacy is the foundation upon which student success is built (Tinto, 2017). Students need to believe that they can succeed at their studies otherwise there is no reason for them to continue to expend their energy to do so. Like motivation, self-efficacy is malleable and can be influenced by the student experience especially during the critical first year of university study (Tinto, 2017). Considering this student success depends on students' belief that they can succeed and reach their goals as a result of their early experiences during the year (Gore, 2006). Due to this, first-year students need timely support if they encounter early difficulties to prevent such from undermining their motivation to persist (Tinto, 2017). This requires higher education institutions to work with first-year students to help them reach their potential, and not be deterred by the challenges of their new environment and life stage (Tinto, 2017).

2.9.2 *Student belonging*

Students' sense of belonging has been identified as a potential factor that promotes student engagement and success in college (O'Keeffe, 2013; Thomas, 2012). This sense of belonging can be considered from a psychological and sociological perspective (Thomas, 2012). The psychological literature is used to define belonging at the individual level, while the sociological literature is used to explain how the potential mismatch between a student's background and the higher education institution may result in students not feeling like they belong, and leaving early (Thomas, 2012). "At the individual level 'belonging' recognises students' subjective feelings of relatedness or connectedness to the institution" (Thomas, 2012, p.12). A sense of belonging in educational environments has been defined as:

Students' sense of being accepted, valued, included, and encouraged by others (teacher and peers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class. More than simple perceived liking or warmth, it also involves support and respect for personal autonomy and for the student as an individual. (Goodenow, 1993, p. 25).

By contrast, sociologists such as Bourdieu and Passeron's (1977) theories of cultural capital (ways of speaking, behaving and interacting, which are learned through interactions with family and social institutions) and habitus (disposition to act in certain ways based on the cultural capital) view the problem as being rooted in the function of a higher education institution (Thomas, 2012). "Students whose habitus is at odds with that of their higher education institution may feel that they do not fit in, that their social and cultural practices are inappropriate and that their knowledge is undervalued, and they may be more inclined to withdraw early" (Thomas, 2002, p.13).

Thus, sense of belonging is most directly shaped by the broader campus climate and students' daily interactions with other students, academics, professional staff and administrators (Tinto, 2017). A sense of belonging to their higher education may lead students to engage more deeply with their studies, leading to persistence and success (Gopalan & Brady, 2019). With students who feel they belong more likely to seek out and use campus resources to a greater extent, furthering their success (Strayhorn, 2012). Students need to feel "that they matter and belong" (Tinto, 2017, p.4), to foster a sense of belonging, which can be considered to be closely aligned with the concepts of academic and social engagement (Thomas, 2012).

Professor Liz Thomas and colleagues carried out a large body of research with undergraduate students in the UK which was cumulated and published in a 2012 report (“*Building student engagement and belonging in Higher Education at a time of change: Final report from the What Works? Student Retention & Success programme*”). The main purpose of the programme of research was to “generate evidence-based analysis and evaluation about the most effective practices to ensure high continuation and completion rates through seven projects involving 22 higher education institutions” (Thomas, 2012, p. 8). Most of the studies combined student survey data, qualitative research with students and analysis of institutional data, as well as literature reviews and additional methods to triangulate the data. One of the key findings of this research was the importance of a students’ sense of belonging (Thomas, 2012) as an essential factor for student success. This is understood to be the sense of each student finding friends, feeling confident and feeling part of their course of study and the institution (Thomas, 2012).

A well-cited, American national longitudinal quantitative study of first-year students identified feeling a sense of belonging to be one of the strongest predictors of persistence (Ben-Avie & Darrow, 2019), and identified this as a factor that is malleable within the institution. To enable a sense of belonging it is essential that students engage with and develop a sense of academic and social belonging early in the first year (Thomas, 2012; Tinto, 2017). This is best facilitated through high-quality student and staff relationship, good peer relationships and developing knowledge, confidence and an identify as a higher education learner (Thomas, 2012).

2.9.3 *Student engagement*

Trowler and Trowler define engagement as “the investment of time, effort and other relevant resources by both students and their institutions intended to optimise the student experience and enhance the learning outcomes and development of students, and the performance and reputation of the institution” (2010, p. 3). They refer to making a deep, personal connection between students and every aspect of the college experience, including academic engagement (Osterman, 2000) and within the broader institution environment (Krause, 2011). This can be linked with the idea of commitment balance (Cownie, 2019), as being a reciprocal relationship between the student and higher education institution.

Based on an extensive review of the literature, Osterman (2000) indicated that satisfaction of the need for belonging in educational environments is significantly associated with students’

academic engagement. In 1987, an evidence synthesis offered seven effective practices in undergraduate teaching and learning towards fostering student engagement: Student-staff contact, active learning, prompt feedback, time on task, high expectations, respect for diverse learning styles, co-operation among students (Chickering & Gamson, 1987).

In addition, social engagement can create a sense of belonging and offer informal support through interaction with friends and peers (Hannon et al., 2017). Social engagement takes place in the social sphere of the institution, including social spaces, clubs and societies, the Students' Union, in student accommodation and through shared living arrangements (Thomas, 2012). Student engagement with the professional service sphere of an education institution was identified as another element of student engagement important to student persistence and success (Thomas et al., 2017). This includes participation in academic, pastoral and professional development services of the campus environment (Thomas, 2012), with this research identifying that such services often contribute to developing students' capacities to engage and belong in higher education and beyond.

Developing authentic partnerships with students has been identified as a significant driver of student engagement. As well as being engaged in different spheres of the institution (academic, social and professional service), students can be engaged at different levels, from engagement in their own learning to engagement in institutional and national policy making (Thomas, 2012). The NStEP (National Student Engagement Programme) aims to strengthen student engagement in decision-making across Irish higher education. The Programme seeks to champion a strong culture of partnership between students and staff through practice-based projects, training and capacity building, as well as informing policy developments (National Forum, 2019), with similar efforts ongoing internationally (Varnham et al., 2018). These initiatives are not specific to student persistence or success but aim to help guide higher education institutions to increase and promote greater student involvement in campus decision-making. "Success is everyone's business and depends on a genuine and meaningful partnership" (National Forum, 2019, p. 27)

Engagement is recognised throughout the literature as being a key concept for student success (e.g., Chickering & Gamson, 1987; Cook-Sather et al., 2014; Kuh, 2009). Student engagement has been positively linked with a broad range of outcomes related to success including deepening learning and development of critical skills (Gellin, 2003; Kuh et al., 2000; Pike et al., 2003), academic achievement (Zhao & Kuh, 2004) and persistence (Kuh et

al., 2008). It has also been found to have a considerable compensatory effect for students from social groups that have been traditionally underrepresented in higher education (Kuh et al., 2008). The process of engaging students should begin early and extend throughout the student life cycle to avoid increased rates of withdrawal and diminished success at subsequent phases of the student journey (Thomas, 2012).

2.9.4 Perceived value of curriculum

Student motivation to persist is also shaped by student perceptions of the value of what they are studying (Tinto, 2017). Students need to perceive the subject area and related skills they are gaining to be of sufficient quality and relevance to matters that concern them now and into their future (Tessema et al., 2012). Student interest is a key driver of engagement for first year students (Kahu et al., 2017). In an Australian qualitative study, 19 first-year students were interviewed with the aim of understanding their interest in their chosen academic course, known to be associated with persistence (Kahu et al., 2017). This study found that “course content aligning with the student’s individual interest, the passion of the teacher for the topic, and the classroom activities all lead to positive emotions such as enjoyment, excitement, and happiness”, and these positive emotions then lead to greater engagement (Kahu et al., 2017, p. 12).

In another Australian study first-year students were asked to rate nine concepts of success by their importance using a Likert scale system (Naylor, 2017), with students ranking learning new things as an important aspect of being successful at college. Thus, only when interest is high will students be motivated to engage in ways that promote learning and, in turn, persistence (Tinto, 2017). The importance of higher and second level education working collaboratively towards student enrolment on an academic course suited to their interest cannot be over-estimated towards persistence. Another is the ability of institution staff to be explicit in demonstrating how the subjects that students are asked to learn can be applied to meaningful situations in ways that have relevance to issues that concern them (Tinto, 2017). The importance of this has been recognised in Ireland with the aim of national level changes to incorporate broader-based first-year college student subject availability, however, more progress is needed in relation to this to enable a good student and academic course fit.

2.10 What do first year students say?

Despite an abundance of literature on student retention, persistence and success in higher education, the student voice is mostly absent. This section will discuss three identified studies on the first-year student perspectives of success with the aim of showing the student-derived perspective.

The first study, carried out in Australia asked first-year students to rate the importance of qualities that contribute to a successful student experience (Naylor, 2017). A typology based on a modification of the framework established in Coates et al., (2016) was adopted and the students were asked to complete an online Likert scale type questionnaire composed around nine concepts of success including; sense of belonging, having opportunities, developing personal traits, developing connections, learning new things, achievement, completing, flexibility and personalisation (Naylor, 2017). In addition, they were also asked to use quadratic voting where each participant was given a limited budget of “points” (50 in this study) with which to indicate the strength of their attitudes for all nine factors.

Consistent with the retention literature discussed previously, completion and achievement in higher education were highly valued by the students (Naylor, 2017), providing evidence of the strong association between education attainment and success in college from the student perspective. In addition, student belonging was ranked highly by the students, defined as making friends and feeling part of a community. This again speaks to the importance of “the human side of higher education” (Thomas et al., 2017, p. 3), as an important foundation for student success. In the same year, a book chapter on success in higher education reported on a student-led study in which students talked about what success meant to them (Hannon et al., 2017). As well as academic outcomes, these students’ view of success included balancing family commitments and feeling happy. These two studies suggest that, for students, success is not exclusively measured by academic outcomes but also has emotional dimensions (Picton et al., 2018).

In a third study, also conducted in Australia, weekly interviews with first-year students were carried out to explore how the students talk about their success (Picton et al., 2018). This study found that students again consider success to be linked with institutional measures, such as grades and feedback, and engagement in educationally purposeful activities. Some students also identified that happiness and satisfaction were necessary to feel successful (Picton et al., 2018). This points to the idea that students value doing well at college in terms

of grades and positive feedback, but also to acquiring skills that will be valuable in career or post-college life. Both of these are factors associated with the meaning of success, here from students, but also linking back to the definitions offered by the National Forum in Ireland and *What Works?* in the UK, identifying the importance of learning and developing during higher education, during the student experience, and beyond to the outcomes that are sought from completing higher education. This identifies an overlap in the student-derived, academic derived perspective of success.

These studies portray student success from a student process perspective, during which they want to feel happy, learn skills, experience a sense of belonging, have positive relationships, and engage academically. These three studies indicate an overlap and extension in the literature towards understanding student-derived and academic-derived perceptions of what constitutes success at university. These three studies suggest that, for students, the traditionally viewed institutional viewpoint focused on continuation and completion within higher education (Tinto, 2017) remains important, as well as the focus of more recent research on student engagement, belonging and social and academic experiences. Student “completion and achievement were seen as fundamental to a successful university experience for the vast majority of students” (Naylor, 2017, p. 13), thus student persistence towards education attainment is an overarching student success outcome. As a result, the current study holds student persistence central in its consideration of the first-year student experiences.

2.11 Implications for first year student college persistence

In the past the prevailing view of student retention has been shaped by theories that view student retention through the institutional lens (Tinto, 2016). Now, there is an agreement within the literature and within higher education systems, that student persistence and retention are best achieved through a system focus on student success (National Forum, 2019; Naylor, 2017; Thomas et al., 2017), inclusive of student belonging, engagement and persistence. There is also an agreement within the literature that the action towards student success must be inclusive of efforts from the education institution, their teaching and support staff, to provide the necessary “conditions, opportunities and expectations” for successful student engagement (Coates, 2005, p. 26), towards enabling and encouraging student motivation to persist (Tinto, 2017). This calls for the incorporation of enhanced student experience, student persistence and student success efforts within higher education, coupled

with more traditional retention monitoring. Each higher education institution should strive to create an education environment that shows their students that they care, and they will be supported towards achieving better student, and therefore better institution outcomes.

Tinto suggests that education institutions, and by extension all its members, academics, professional staff, and administration, ask: “What can they do to lead students to want and have the ability to persist and complete their programs of study within the university?” (Tinto, 2017, p. 6). To answer this question Tinto suggests that education institutions try to see the issue of persistence from their students’ viewpoints, seeking and hearing their voices, and engaging with their students as partners, learning from their experiences and understanding how their experiences within the institution have shaped their responses to university policies. This current research aims to add to the international knowledge in this area, utilising quantitative research and qualitative participatory research towards a better understanding of first-year student persistence.

2.12 First-year college student well-being

Starting higher education is part of an anticipated transition many youths experience which can offer students new opportunities and experiences, new connections, and an opportunity to learn and discover new things (Coates et al., 2016; Naylor, 2017). However, it is not unusual for some students going through the transition to experience psychological distress, anxiety, depression, sleep disturbance, a reduction in self-esteem, developmental challenges, isolation (Auerbach et al., 2018; Conley et al., 2013; Hicks & Heastie 2008; Maymon et al., 2019), changes to their subjective well-being (De Coninck et al., 2019) and participation in risk behaviours (e.g., hazardous drinking in Auerbach et al., 2018; Davoren et al., 2014). In addition to this, starting college is often the first time a young person takes responsibility for their own health and well-being (Reider et al., 2015). Thus, making this time particularly vulnerable for student well-being.

Students’ definition of success in college is inclusive of being able to adapt and respond to their own and others’ well-being (Delahunty & O’Shea, 2019). An important consideration derived from the student perspective, within the area of student retention and persistence. However, in the past student retention models (Bean 1982; Tinto, 1993) failed to consider student well-being in an integrative way as a factor with the potential to impact student persistence and retention. Thus, this current research aims to explore the relationship between

student well-being and student commitment and integration, as proxy measures of persistence, towards addressing this gap in the literature.

2.12.1 Defining well-being

Well-being is a broad construct that refers to a positive personal state. In the well cited paper, “The challenges of defining well-being” (Dodge et al., 2012), a definition of well-being based on the concept of equilibrium, with a person’s well-being the balancing point between a person’s resource pool and the challenges they face, is proposed (Figure 2).

Figure 2

Definition of Well-being



Note. From *The challenge of defining wellbeing*. (p. 230), by Rachel Dodge, Annette Daly, Jan Huyton & Lalage Sanders, 2012. *International Journal of Wellbeing*, 2(3), 222-235.

This definition considers the see-saw to represent an individual’s drive to return to a point of balanced well-being (Brickman & Campbell, 1971; Headey & Wearing 1992) as well as the person’s need for well-being equilibrium (Herzlich, 1973; Cummins, 2010). “In essence, stable well-being is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge. When individuals have more challenges than resources, the see-saw dips, along with their well-being, and vice-versa” (Dodge et al., 2012, p. 230). This definition of well-being links closely with the World Health Organisation’s definition of health as a “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946, in WHO, 2020, p. 6). The Okanagan Charter, an international charter and guiding framework for Health Promoting Universities and Colleges, acknowledges this WHO definition and elaborates on it to understand health as “an expanding concept defined through

an emergent conversation around health, well-being and wellness” (Okanagan Charter, 2015, p. 4). Thus, both international World Health Organisation documents prioritise well-being as an integral part of good health. In this current study well-being is being explored as an additional student persistence factor, towards examining the potential impact of student well-being during the first-year transition to college. Considering well-being in this way, as a function of each student striving for equilibrium, is very apt for this current study. This definition offers a valuable visual within which to consider the question this research poses; does an imbalance in student well-being impact student persistence during the first year at college?

2.12.2 Linking health behaviours with well-being

The age from 10 to 24 years is a time when major biological, psychological, and social changes occur, laying the foundations for adult life (Viner et al., 2015; Shah et al., 2019; The Lancet, 2019). Social transitions from a dependent child towards a more independent youth with stronger peer affiliation, intimate partner relationships, transitions through the education system and into employment are accompanied by new health, social and personal behaviours (Viner et al., 2015). Many important health-related behaviours, such as smoking, alcohol consumption, drug use, physical activity and sexual behaviours initiate in adolescence, and these patterns often track into adult life (Viner et al., 2015; Viner et al., 2017; Shah et al., 2019). To consider student well-being within the equilibrium definition (Dodge et al., 2012) it is important to understand the role of health behaviours as potential protective factors (e.g., physical activity) or risk factors (e.g., hazardous drinking, substance use) to student well-being. The benefit of understanding the role of health behaviours is important as these behaviours are modifiable (Hooker et al., 2018), thus, early intervention in terms of health promotion has the potential to equip students with the knowledge and tools to protect their well-being, to maintain well-being equilibrium. In addition, the inclusion of health behaviours within first-year student persistence research is important to increase our understanding of the impact of such behaviours on student persistence towards better student outcomes.

2.12.3 Well-being constructs included in this research

In this current research, the inclusion of specific constructs within the survey tools, and thus within this literature review was guided by two considerations. Firstly, the consideration of the important well-being areas emerging within the literature specific to college students.

Student mental health is the foremost issue emerging from the literature, with a large volume of research identifying this as a priority area (Auerbach et al., 2018; Dooley et al., 2019; Suarez-Reyes et al., 2019), inclusive of consideration of the impact of student depression, anxiety and stress. In addition, an international study exploring the way in which 54 universities across 25 countries implemented the Health Promoting Universities and Colleges (HPUC) framework identified the well-being constructs most often addressed were: promotion of physical activity and healthy eating habits, prevention of alcohol abuse, and promotion of mental health (Suarez-Reyes et al., 2019).

Secondly, the health constructs included within the Irish Health Behaviour in School-aged Children study, a cross-national research study conducted in collaboration with the World Health Organisation Regional Office. This study monitors the health behaviours, health outcomes and social environments of school-aged children every four years (Gavin et al., 2021). This study provides Irish trends data over a 20-year time period with comparative international data. Thus, collating findings specific to college students on similar aspects is particularly useful to build on the national and international data on youth well-being and health. As a result, the well-being constructs considered important to include within this current research include physical activity, risk behaviours, self-rated health, and mental well-being.

2.12.3.1 Student self-rated health

Self-rated health is a subjective indicator of health (Mikolajczyk et al., 2008) linked to physical, mental and social features of well-being (Mikolajczyk et al., 2008; Sugisawa & Sugisawa, 1995 cited in Ansari & Stock, 2016). This definition of self-rated health links closely with the conceptualisation of well-being adopted for this current research. A prominent measure of self-rated health from the literature is a single-item five-level ordinal measure of overall health (Dallo, 2018; Darker et al., 2016; Gavin et al., 2021; Mikolajczyk et al., 2008; Vaez et al., 2004). Studies exploring self-rated health with college students are relatively scarce, despite findings that student health is an important predictor of both academic performance (Garcia et al., 2015; Serrano & Andreu, 2016; Wintre et al., 2011) and student college drop-out (Bowman, 2010).

In the USA, the American College Health Association include this single item measure of self-rated health within their National College Health Assessment Survey annually. In the 2021 survey, with over 67,000 undergraduate student responses, 49.5% reported

excellent/very good health, 36.1% reported good health and 14% reported fair/poor health (American College Health Association, 2021). This large-scale American student data is useful for student well-being trends, policy provision, and funding allocation for intervention purposes, however it fails to link with student persistence and retention factors. In another recent student survey examining undergraduate student self-rated health with 3,464 students from Universities in England, Wales and Northern Ireland, 47.6% of students reported excellent/very good health with 10.8% reporting poor health (Ansari & Stock, 2016). In this study female students were less likely to report excellent/very good health (Ansari & Stock, 2016), similar to other studies examining health related outcomes by gender (e.g., females more likely to report higher anxiety in Dooley et al., 2019).

In addition, the international Health Behaviour in School-Aged Children Study (HBSC) includes this measure of self-rated health in their exploration of school-aged children's health (Torsheim et al., 2006). In Ireland in 2018, 31% of 10- to 17-year-old children reported excellent health, compared with 34.4% in 2014 and 32% in 2010, a steady trend over the last decade. However, in relation to the higher education student population, and more specifically first-year students, similar information is limited in Ireland and internationally. There is little evidence of the use of such a measure of student self-rated health with student academic and persistence or retention related information. Thus, it is difficult to get a picture of the potential impact of student self-rated health on first-year student persistence. This current study aims to add to this knowledge.

2.12.3.2 Mental Health

The most prominent health issue for young people is their mental health (Dooley et al., 2019). Mental health is described as “a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO, 2018b). This definition represents substantial progress moving away from the conceptualisation of mental health as a state of absence of mental illness or a mental health disorder, generally characterised by abnormal thoughts, emotions, behaviours and relationships with others (WHO, 2018b). In Ireland youth mental health is a national public health and policy issue of priority (Department of Health, 2017) due to the prevalence of mental health disorders. In a recent national mental health study, 58% of young people (aged 18 to 25 years) reported experiencing depressive symptoms, with 23% of these in the severe categories and 58%

reported experiencing symptoms of anxiety, with 28% in the severe categories (Dooley et al., 2019). Adolescence and early adulthood is the peak time for the onset of mental health difficulties (Auerbach et al., 2018), and it has been reported that 75% of all mental health disorders that persist into adulthood emerge before 25 years of age (Kessler et al., 2007).

College years (adolescence and early adulthood) are a peak period for onset of many common mental disorders, particularly mood and anxiety disorders (De Girolamo et al., 2012; Kessler et al., 2007), thus it is not surprising that epidemiological studies consistently find high prevalence of these disorders among college students (Hunt & Eisenberg, 2010; Pedrelli et al., 2015). This high prevalence is significant due to the distress it causes during a time of life transition, but also because it is associated with substantial impairment in academic performance (Auerbach et al., 2016; Bruffaerts et al., 2018). A recent international quantitative study of 1,572 college students found that a significantly lower proportion of students had one or more pre-matriculation-onset mental disorders 22.9% compared to students who had withdrawn from college 30.3%. Thus, this pattern is consistent with pre-matriculation disorders predicting subsequent attrition among college students (Auerbach et al., 2016). This highlights the importance of mental well-being promotion and support when difficulties arise during first year in college.

First year college student mental health is an international concern, with one in three first-year college students struggling with at least one mental health disorder (e.g., depression, anxiety) (Auerbach et al., 2018), as found in an international WHO study. This transitional time can cause increased vulnerability, thus a decline in psychological well-being (Brooker & Woodyatt, 2019). Stress has also been shown to be a prominent factor with the potential to impact well-being during the first-year student transition to college (Wrench et al., 2013). Such mental health issues are evident in Ireland with a 127% increase in higher education students registered with disability services for mental health illness over the past 5 years (AHEAD, 2019). Detection and effective treatment of mental health disorders early in the college experience may have the potential to reduce attrition and improve educational functioning (Auerbach et al., 2016). This current study aims to add to the available knowledge on student mental well-being during first year of college.

Due to concern for the increased levels of student mental ill health and distress nationally (Dooley et al., 2019) and internationally (Auerbach et al., 2018), a new National Student Mental Health and Suicide Prevention Framework was published in Ireland (Department for

Further and Higher Education, Research, Innovation and Science, 2020). The education setting has been identified as a setting with the potential to offer mental health protection and promotion (Okanagan Charter, 2015). Thus, the provision set out in the new Framework aims to establish a whole-college approach to better detection and effective treatment of mental health disorders and promotion of mental health well-being. The concern in relation to student mental well-being has two elements; increasing numbers of students with mental illness and also increasing demand for student support services far exceeding the resources available. Due to this the Framework identifies a pathway for higher education institutions to establish on-campus strategy, collaborate mental health promotion, build campus capacity in terms of education and suicide prevention, enhance engagement and belonging, and establish capacity to identify support needs (Department for Further and Higher Education, Research, Innovation and Science, 2020). The overall aim is to broaden the on-campus support through education and capacity building towards supporting and responding to student mental health needs. This is a valuable framework, taking an ecological perspective of mental well-being within higher education institutions. This current research aims to better understand the link between student mental health and student persistence, addressing a gap in the literature.

2.12.3.3 Physical activity

International research from the U.S. identifies college students as a population subgroup with inadequate physical activity (McArthur & Raedeke, 2009), with approximately 20% reporting no physical activity at all, and a further 30% reporting less than the recommended amount (Keating et al., 2005). In 2016 the situation in Ireland did not seem so bleak with the Student Activity and Sport Study Ireland (2016) reporting that 64% (71% male & 58% female) of students were active enough to meet national physical activity recommendations, however this reduced by 3% with each additional year of age (Murphy et al., 2015). This report sampled approximately 8,000 higher education students across 33 colleges in Ireland.

However, in 2019, a large national youth study in Ireland, the MyWorld study, reported that only 20% of 18- to 25-year-olds met the recommended physical activity guidelines, with 12% of young adults not engaging in any physical activity (Dooley et al., 2019). This study also found that males were more likely to report engaging in the recommended amount of exercise than females (Dooley et al., 2019). This recent study, though not focused on students in higher education alone, suggests a significant fall in physical activity levels within this age cohort in Ireland. This trend is worrying due to the potential implications for student well-

being. Regular physical activity is proven to help prevent and treat heart disease, stroke, diabetes and breast and colon cancer, as well as help to prevent hypertension, overweight and obesity and can improve mental health, quality of life and well-being (WHO, 2018a). This list of potential health benefits highlights the importance of monitoring and promoting college student physical activity.

An American study reported that first-year students who are physically active may have better physical and mental health, in the long and short term (Bray & Born, 2004). The first-year transition to college has been shown to be a challenging time for many young people (Naylor, 2017), with many experiencing mental health difficulties (Auerbach et al., 2018), and loneliness (Fiori & Consedine, 2013). In addition, research identifies college to be a time of increased participation in risk behaviours (e.g., hazardous drinking) (Davoren et al., 2014). However, research suggests that physical activity can act as a protective factor to youth health (Department of Health and Children, 2009), thus having the potential to reduce the potential negative implications of this challenging life transition. Physical activity presents a potential support to student well-being during the often challenging and stressful transition to college.

2.12.3.4 Risk Behaviours

The risk behaviours included in this research are hazardous drinking and substance use. Excessive alcohol consumption is a major public health challenge internationally (Babor et al., 2010; Mikolajczyk et al., 2016). Alcohol-related problems are diverse and have a strong social dimension, with a significant proportion of related problems occurring among the young (WHO, 2010). Hazardous drinking is defined as “a pattern of alcohol consumption that increases the risk of harmful consequences for the user or others” (Babor et al., 2001). Hazardous levels of alcohol consumption are evident with higher education students in many countries, for example the U.S. (Hingson et al., 2017; McCabe, 2002), the UK (National Union of Students, 2018; Webb et al., 1996), Poland (Makara-Studzinska & Urbanska, 2007), Germany and Bulgaria (Mikolajczyk et al., 2016). Recent Irish research noted that two-thirds of students report hazardous alcohol consumption, with the gender gap closing in the past decade (Davoren et al., 2015; Long & Mongan, 2014).

Previous research using the Alcohol Use Disorders Identification Test for Consumption (AUDIT-C) scale reported lower levels of hazardous alcohol consumption among non-university peers (36%) (New Zealand: Kypria et al., 2005) and the general population (54%)

(Ireland: Long & Mongan, 2013). Researchers have identified that university students have a higher alcohol consumption than other age groups and even within the same age group in comparison to non-students (Carter et al., 2010; Ham & Hope, 2003; Hingson et al., 2017; Johnston et al., 2007). Alcohol use is recognised as one of the most problematic aspects of college life due to the related negative consequences (Hingson et al., 2017). These can include sexual assault (Abbey, 2002), relationships difficulties, verbal abuse, assault and antisocial behaviour (Davoren et al., 2015; Davoren et al., 2016). These negative consequences can also have academic repercussions such as academic dropout (Martinez et al., 2008), academic underperformance (Perkins, 2002; Wolaver, 2002), and reduced academic engagement (Porter & Pryor, 2007). Therefore, identifying and addressing the risk factors for alcohol consumption and sustained binge-drinking in higher education is critical to enabling a positive student experience.

A comprehensive review of drinking habits in European universities suggested that hazardous levels of alcohol consumption were associated with increased levels of smoking and drug use (Wicki et al., 2010). This was also found in the U.S., with other substance use (e.g., tobacco, marijuana) positively correlated with alcohol use (Blavos et al., 2017; Ramo et al., 2012). Negative consequence of drug use for college students include dependence, risky driving behaviours, poorer physical and mental health (Aria et al., 2016; Caldeira et al., 2008; Caldeira et al., 2012; Kohn et al., 2014). There is also evidence of potential negative impact on educational achievement including gaps in enrolment, prolonged time to graduation, and failure to graduate (Arria et al., 2013; Arria et al., 2015). Thus, drug use is a significant public health concern, with drug use among college students associated with adverse academic and health outcomes, and risks to personal safety (Arria et al., 2017).

In contrast to the amount of research on hazardous drinking in college, fewer studies have examined drug use behaviour during college (Arria et al., 2017; Bennett & Holloway, 2014). In a U.S. study, national cross-sectional data estimated that approximately one in four college students used marijuana or some other drug (Arria et al., 2017). The Monitoring the Future Survey in 2010 in the USA found that college students were more likely than their noncollege peers to use drugs (Johnston et al., 2010). Research suggested that while substance use patterns can continue during the transition from school to college, many youths initiate use after entering college (Arria et al., 2017). Thus, making first year in college a critical time to create awareness of the health, academic and other related negative consequences of such risk behaviours.

In Ireland, a total of 53% of young adults (aged between 18 to 25 years) reported they had smoked cannabis in their lifetime, with males (59%) more likely to do so than females (50%) (Dooley et al., 2019). In the same study, 49% of young adults presented with no drug problems, 37% were low level, 14% in the ‘moderate to severe’ category of having a problem with drug-use. This study sample includes employed youths, as well as higher education students, so this data is not college specific, but it is useful to give an indication to the prevalence of this risk behaviour in Ireland. In addition, in the UK cannabis was identified as the most commonly used drug among students and the drug likely to be used more regularly (National Union of Students, 2018). However, it is also the case that many students participate in experimenting with illicit drugs (including cannabis, LSD (lysergic acid diethylamide), amphetamines, Ecstasy) during college years (Webb et al., 1996). However, information about more sustained and varied drug use is difficult to obtain. The literature does provide sufficient evidence of student engagement with this risk behaviour in Ireland and internationally, however, the level of engagement and the impact on first-year college student persistence is not known. This current research aims to add some knowledge to this gap in the knowledge.

2.13 Linking student well-being with academic attainment

Multiple factors impact college student education attainment. One variable that affects all students is well-being. There is a very large volume of literature focused on student mental health, with lesser amounts available on other aspects of student well-being. Some research points to well-being related variables as important factors with the potential to impact the student experience as represented by levels of education attainment (American College Health Association 2015; Arria et al., 2013; Auerbach et al., 2018; Awadalla et al., 2020; De Coninck et al., 2019; Gaultney, 2016; Gilbert & Weaver, 2010; Krumrei-Mancuso et al., 2013; Reuter & Forster, 2021; Wald et al., 2013; Wolaver, 2007). This link demonstrates the rationale for the consideration of student well-being constructs as important to student persistence and retention.

However, much of the research to date examines the impact of one or more well-being variable on academic success, which is primarily represented in the form of Grade Point Average (mental health in Auerbach et al., 2018; Awadalla et al., 2020, sleep in American College Health Association, 2015; Gaultney, 2016; Gilbert & Weaver, 2010, stress in

American College Health Association 2015; Krumrei-Mancuso et al., 2013, alcohol consumption in Reuter & Forster, 2021; Wolaver, 2007, fruit and vegetable intake in Reuter & Forster, 2021; Wald et al., 2013; physical activity in Wald et al., 2013; cannabis use in Reuter & Forster, 2021) or continuous enrolment (drug use in Arria et al., 2013). As a result, there is a lack of research incorporating well-being constructs within a systematic pathway or recognised model of persistence and retention, in for example a model of student retention such as Tinto or Bean's models. This limits our understanding of the impact of well-being as part of an inclusive suite of important factors, with social and academic experiences, during the first-year student experience. This current research aims to address this.

Student persistence is understood to be a student-centred process that is essential to student success. The literature also points to the importance of student well-being to student higher education attainment. However, there is a lack of research linking student persistence, taking a first-year experience viewpoint, with student well-being to better understand how these relate to each other. Thus, this current research aims to explore student well-being with pre-determined important factors with the potential to impact student persistence and retention, guided by the Institutional Departure Model (Tinto, 1993), exploring well-being as an additional important construct towards student persistence. The objective is to contribute to a more comprehensive understanding of the factors that have the potential to impact student commitment and integration, and in turn, persistence. Thus, this current research aims to build on the limited evidence to date of including measures of well-being in a model of student persistence and retention.

2.14 Education is a prerequisite for health and well-being

The Ottawa Charter (1986) recognises education as a prerequisite for health (WHO, 1986), linking education and health as interdependent. The Charter also recognises the importance of enabling each person to have control over their lives and strive to make health promoting and life enhancing decisions in a supportive environment (WHO, 1986). This is a central consideration of this current research; aiming to examine and explore the first-year student experience towards creating a supportive campus environment focused on promoting student well-being and student persistence, making academic attainment possible.

2.15 Persistence and well-being; creating a supportive environment

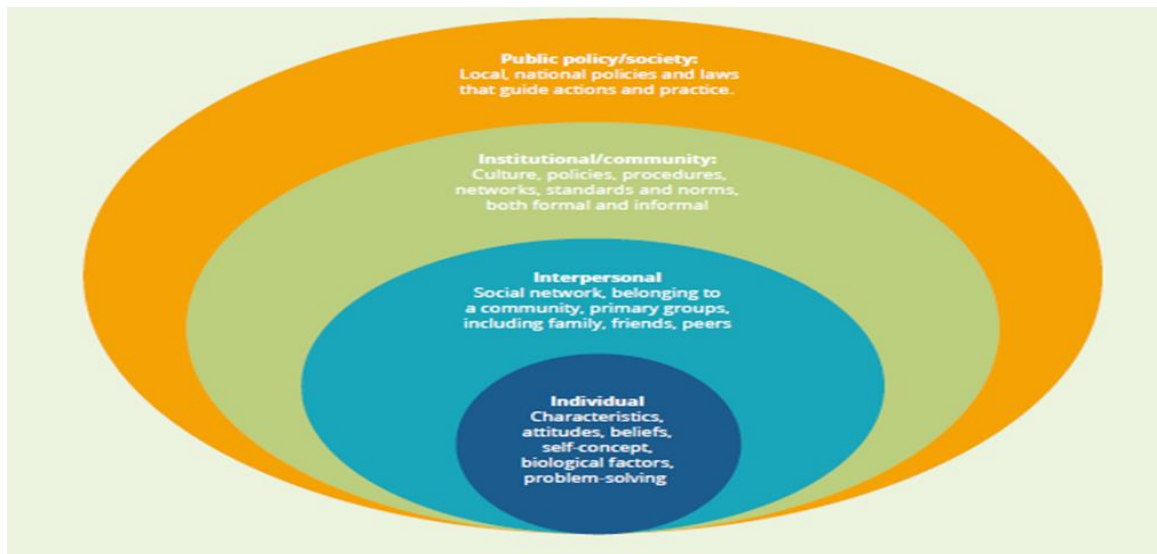
The Ottawa Charter for Health Promotion (WHO, 1986) took the first step in defining a holistic view of health stating “health is created and lived by people within the settings of their everyday life; where they learn, work, play and love” (WHO, 1986, p. 3). The Charter also outlined five societal levels in which health promotion can be practised: “building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services” (WHO, 1986, p. 1-4), all of which can be applied to a higher-level education institution for better student outcomes. In the identification of “creating supportive environments” as one of its five strategies for health (WHO, 1986, p. 2), the Ottawa Charter led to the development of the settings approach to health promotion. This approach to health promotion suggests that peoples’ health can be affected or modified by the settings in which they function; the setting of interest for this current study is higher education institutions. The Ottawa Charter emphasised and suggested a critically important move towards a socio-ecological view of health and pointed to an inseparable link between people and their environment, thus a consequent effect on their health. This follows a similar development pattern of the student retention theoretical frameworks of the past, adapting from a student focus to one that identifies the student and the local setting as having an interactive relationship. In addition, the early focus of student retention was on understanding dropout or withdrawal, however, there has been a welcome shift to a more student focused, supportive, promotion of education attainment focus, in recent years.

2.16 The socio-ecological model for health promotion

In order to effectively intervene and impact student well-being, it is important to consider the student within their environment, in terms of both risk and protective factors. The socio-ecological model is a framework for understanding how individual human behaviour is influenced by both individuals themselves and by their environment (McLeroy, 1988). This is consistent with Tinto’s sociological model acknowledging the potential process of interaction between the individual and their environment towards an individual behaviour and the related outcome. The socio-ecological model emphasises the importance of studying the individual interactions with multiple environments, thus taking a holistic perspective of individual health and well-being (See Figure 3).

Figure 3

The Socio-ecological Model of Health Promotion



Note. From *National Student Mental Health Framework 2020* (p.21), adapted from McLeroy et al., 1988.

The theoretical underpinning of the socio-ecological model is that health is determined by influences at multiple levels; policy, community, institutional, interpersonal and intrapersonal/individual factors (McLeroy et al., 1988, p.355), and how these influences impact individual behaviour. Thus, individual behaviour is the outcome of interest, and behaviour is viewed as being determined by five levels of an individual's environment. See Table 2 below for an overview.

Table 2*The Socio-ecological Model for Health Promotion Overview.*

Identification of level	Explanation	Example
Intrapersonal factors	Individual characteristics	Knowledge Attitudes Behavior Skills
Interpersonal factors	Formal and informal social networks and social support systems	Family Work group Friendship networks
Institutional Factors	Social institutions with organisational characteristics and formal (and informal) rules and regulations for operations	Class schedules Financial policies Availability of study and common lounge spaces Safety
Community Factors	The relationships among organisations, institutions and informal networks of the institution.	Location in the community, neighbourhood associations, community leaders, housing, businesses.
Public policy	Local and national laws and policies. These serve a mediating structure connecting individuals and the larger social environment.	Restrict behaviour such as tobacco use in public spaces. Provide behavioural incentives, such as increased taxes on alcohol.

The World Health Organisation recommends an integrated multi-level ecological approach in prevention efforts for any health or disease issue. The emergence of the settings approach to health promotion recognises that health gain can be most effectively and efficiently achieved by interventions in a range of social systems that consider personal, organisational and political processes (Tsouros et al., 1998). Thus, taking a socio-ecological approach to higher education health promotion is the best practice approach. In addition, student persistence can be considered to be an individual factor in terms of motivation and behaviour, thus considering student persistence in a coupled way with student well-being within the campus ecology has the potential to provide a multi-faceted understanding of the connections between student well-being and student persistence.

2.17 Chapter Summary

This research draws on two major domains of theory and research which have been reviewed in this chapter, namely (a) first-year college student persistence and retention, and (b) first-year college student well-being. Both fields have been extensively developed independently but have not been examined in depth collectively. This chapter has demonstrated that predominant conceptual perspectives on these areas are compatible and potentially complementary. The factors important to first-year student persistence and retention are comprehensively explained in the Model of Institutional Departure (Tinto, 1975, 1993), with the addition of more recent work from Tinto prioritising student persistence in terms of self-efficacy, belonging and curriculum value (Tinto, 2017). In addition, the emergence of research focused on the student experience towards student success has more recently included greater incorporation of psychosocial factors towards understanding the student experience, albeit without the inclusion of student well-being.

Likewise, the promotion of student health and well-being can be comprehensively theorised within the ecological model of health promotion, however there is no consideration of student education attainment within this model. In Ireland, the National Student Mental Health and Suicide Prevention Framework for example, is based within the ecological model in terms of development and implementation. This acknowledges the appropriateness of such an approach within a national Government document. However, an integrated socio-ecological approach considering the promotion of student well-being and student persistence adopting a whole-campus ethos seems like a promising applied research topic with relevance to resource utilisation and capacity building towards better student and higher education outcomes. This current study aims to add to the knowledge gap on the integration of the models introduced in this chapter and the suggested student support solutions.

2.18 This research

Considering the research gaps outlined above, the overall aim of this research is to explore the first-year student experience towards a greater understanding of the factors that impact persistence. The study will help to develop a more thorough understanding of this student-centred issue and point toward related student support needs to promote persistence.

Qualitative and quantitative methodological approaches were used in this research. Study 1 uses a cross-sectional survey to explore the potential impact of academic, social and

individual variables that includes a set of well-being variables. It focuses on student commitment during year one in college as a proxy measure of persistence. The aim of this study is to add to our knowledge of the association of student well-being as an important factor with the potential to impact persistence.

Study 2 uses a longitudinal survey to explore the potential impact of semester one well-being variables on student commitment and integration at the end of semester two of first year in college. Narrowing the focus to the impact of student well-being was important to this study, as all students enter third-level education with the aim of persistence towards graduation, however little is known about the impact of student well-being on these persistence markers. The aim of this study is to add to our knowledge of the potential impact of early first-year student well-being factors on student persistence, thus pointing to a potential area to focus early intervention supports.

Study 3 adopts a qualitative participatory approach to gain the student perspective of first-year student persistence through the participation of a group of second-year students retrospectively exploring the topic. This study allows for an open exploration of the subject that allows the students to identify and discuss the promoters, barriers and possible solutions to first year persistence. This illustrates the applied relevance of modifying student persistence perspectives towards better student outcomes. The implementation of the three research studies draws on four objectives, which are used to frame the research questions (RQ).

Objective 1: To examine the association between student commitment and student characteristics, experiences and well-being during the early first-year transition to college.

RQ1: What student characteristics, experiences and well-being variables are significantly associated with student commitment during the early transition to college?

Objective 2: To examine if student commitment changes significantly from early first-year compared with the end of first year.

RQ2: Is there a change in student commitment from early first year to the end of first year?

Objective 3: To examine what student well-being variables are significantly associated with student commitment and integration at the end of first year of college?

RQ3: What semester 1 student well-being variables are significantly associated with student commitment and integration at the end of year one in college?

Objective 4: To explore students' perspectives of promoters, barriers and supports to first year college persistence.

RQ4: What are the promoters and barriers to student persistence experienced by first year students?

RQ5: What are the specific supports, when are they needed, and who are they needed from during first year?

2.19 The importance of this current research

There is a wealth of research spanning many decades exploring student progression towards graduation, student persistence, retention, attrition, dropout, withdrawal, with a consensus in the main part to the key aspects of the student experience that impact student education attainment (Bean, 1982; Kahu & Nelson, 2017; Thomas, 2012; Tinto, 1993). However, there is limited research conducted that includes a representative selection of these pre-determined persistence factors from the literature that speak to the constructs of the Institutional Departure Model (Tinto, 1975, 1993) and have been proven to impact student progression, in one study. This current research will address this adding to the literature.

There is a vast amount of research on student well-being. Student mental health and ill health has gained a huge amount of attention in recent years with student stress also prominent in the literature. In addition, alcohol consumption, drug use, loneliness, self-rated health and physical activity are also recognised as relevant student well-being factors, with some being linked to academic achievement and progression. However, there is little evidence in the literature of the relationship between student well-being and student motivation or commitment, thus, persistence. In addition, student retention and dropout have been explored with one or more student well-being factors in previous research, however there is little reference to student persistence predictors such as their impact on commitment, integration,

and not with the consideration of many well-being factors and their impact on commitment and integration in one study. This current research aims to address this by quantitatively exploring student well-being factors with the constructs of the Institutional Departure Model (Tinto, 1975, 1993), and utilising student commitment and integration as the dependent variables, making a significant contribution to the literature.

Through the provision of cross-sectional and longitudinal quantitative data on student persistence and well-being, this research aims to examine the context within which students transition to college in a more inclusive way. It is evident from the literature that the focus of much of the early research in this area was on student attrition, student dropout and student non progression. More recent research is focused on student engagement, student belonging, and student success, approaching the area from a student-centred strengths-based viewpoint. This current research aims to build on this by adopting a positive, enabling, promoting and supporting student persistence viewpoint. This current research adopts a strength-based viewpoint, utilising quantitative and qualitative research to add to the student persistence literature and knowledge to date.

In addition, this current research aims to make methodological advances in student persistence research, using qualitative participatory research methodology. Nationally in Ireland and internationally there is increasing recognition that young people have a right to participate in issues that affect their lives (Coyne, 2008; Higher Education Authority, 2019; Sadowski et al., 2018). An increasing weigh on the value of participatory approaches has emerged internationally in respect of policy and practice (Richkard et al., 2018; Sadowski et al., 2018; Varnham et al., 2018) with the benefits acknowledged for the participants and the projects. This current research aims to address the distinct lack of student participation in persistence and retention research to date by providing students with an opportunity to be part of this research and share their experiences of first year at college, with a specific focus on promoters and barriers of persistence and supports towards enabling persistence.

This is the first time in Ireland, adding to a very small international literature source, that student persistence will be explored solely from the student's viewpoint using participative research towards developing student-centred supports. Furthermore, no previous research facilitated data development by students towards creating a "Timeline of Supports", enabling the student participants to present their data in a comprehensive way for use by education institution management. To our knowledge, no published study has undertaken such an

investigation, in Ireland or internationally in particular under the guidance of students as partners in the research.

This research will provide multimethod data developed through a focus on student persistence contributing to our understanding of the impact of many student demographic, academic, social, and student well-being factors during the first-year student transition to college on student integration and commitment, thus persistence. To work towards understanding and supporting student persistence higher education institutions need to see the first-year experience through the eyes of their students, hear their voices, work in partnership with them, understand their experience and how it shapes their responses to university policies (Tinto, 2017). Vincent Tinto has encouraged researchers and practitioners to view the issue of persistence through the eyes of the students, as a means to better support their persistence and motivation towards education attainment (Tinto, 2017), a perspective that this study aims to support.

Chapter 3 Methodology

3.1 Chapter overview

The aim of this chapter is to outline the overall design of this research and how the objectives of the research are fulfilled in the three studies. Firstly, the research background, the philosophical approach, and the research design are presented, with justification for the methodological decisions. Secondly, the aims of the three studies are presented with a detailed description of the methods used to address the aims, inclusive of a discussion of methodological issues such as reliability and validity. Finally, ethical considerations and reflexivity considerations of the researcher are presented.

3.2 The Student Information Project at the National University of Ireland, Galway

In 2015 the National University of Ireland, Galway (NUIG) Student Services administrative unit funded an information gathering project with the aim of better understanding the student experience at the university, thus, the work is called the Student Information Project. The objective was to create a collection of survey designs to collect cross-sectional survey data annually, of all student years across campus. The focus of these surveys was broadly to include student academic and social experiences, student use of on-campus services, and student well-being. There was also a specific aim to collect data on the first-year student experience due to concerns relating to student withdrawal. It was not part of the remit of the project to collect data on student completion or retention from university records, thus, the focus was on understanding the experience of students who persist based on self-selected survey responses.

My PhD research was funded as part of this overall project, with access to students and the generated data, with the research design within the limits of the project. Considering this and my past research and life experiences I was immediately interested in focusing on the first-year student experience for my PhD studies. With my background in health promotion, my perspective aligned with the project aims towards enabling student persistence, focusing on promotion and support provision. The Student Information Project gave me the opportunity to link student persistence factors with student well-being to better understand how these factors impact the first-year student experience. My pre-PhD research work was inclusive of

participatory research with young people so including an element of this in my studies was very important to me, though it was beyond the remit of the Student Information Project.

3.3 Philosophical Approach

According to Kuhn (1962) a research paradigm is a set of common beliefs and agreements shared between scientists about how problems should be understood and addressed. The three central research paradigms are positivist, constructivist and pragmatist. When conducting research, the researcher is striving to understand the reality of the people experiencing the phenomenon, in this case the reality of students experiencing first-year in college. Thus, this is the ontology we are striving to understand. To establish a research paradigm relating to a research study, researchers also need to identify the epistemology and the methodology for the study. Research epistemologies provide a valuable means by which theories of knowledge creation can be understood and justified (Carter & Little, 2007; Schwandt, 2000). According to Guba (1990), research paradigms can be characterised through their:

- Ontology – What is reality?
- Epistemology – How do you know something?
- Methodology – How do you go about finding it out?

3.3.1 Epistemology

Positivism views reality as universal, objective, and quantifiable (Darlaston-Jones, 2007), believing there is a single reality which can be measured and known. From this perspective, it is argued that reality is the same for each person and through the application of science we can identify and ‘see’ that shared reality (Darlaston-Jones, 2007). Therefore, they are more likely to use quantitative methods to measure and understand this reality. The positivist perspective is less focused on the person as the perceiver of his or her world and even less so on the person as a conceiver or constructor of his or her world (Ashworth, 2003). In adopting the belief that a single universal reality exists for all, and that this reality can be discovered utilising systematically controlled investigations, research from this perspective fails to recognise the ability of the person to interpret and make sense of his or her world (Darlaston-Jones, 2007).

A constructivist worldview sees reality as socially constructed by and between the persons who experience it (Gergen, 1999). Reality is a consequence of the context in which the action occurs and is shaped by the cultural, historical, political, and social norms that operate within that context and time (Berger & Luckman, 1966). The resulting worldview is that reality can be different for each of us based on our unique understandings of the world and our experience of it (Berger & Luckman, 1966). Constructivists believe that there is no single reality or truth, that reality needs to be interpreted and understood from many perspectives. Therefore, constructivist researchers are more likely to utilise qualitative methods to gain knowledge of the multiple realities within their research area (Johnson et al., 2007b).

In addition to these worldviews is the pragmatic view. Pragmatism is not bound to any particular approach of philosophy and reality, it instead requires that the researcher use 'what works' to search for answers to the research question (Creswell & Plano Clark, 2017). Pragmatism applies similarly to both quantitative and qualitative research in that both approaches have a shared objective of matching or combining the strengths of different methods towards meeting the requirements of the research question (Johnson et al., 2007b, Morgan, 2013). Pragmatism views the research problem as the most important issue, valuing both subjective and objective observations to reveal the answers to the research questions (Creswell & Plano Clark, 2011). Morgan argues that pragmatism can serve as a philosophical paradigm for social research, regardless of whether that research uses qualitative, quantitative or mixed methods (Morgan, 2013).

The philosophical worldview that guided this current research design was pragmatism. This is mainly due to the conception of this overall research within the larger scale university Student Information Project to answer certain questions, provide information to decision makers, and build capacity for information gathering within the institution. This project incorporated multiple methods, largely focused on quantitative design in order to capture views from large numbers of students across different interest groups. Social constructivists value the role of the person in contributing to the whole but recognises the influence of the collective in creating the individual (Darlaston-Jones, 2007). Thus, understanding the student experience from a positivist worldview utilising quantitative research is important and informative due to the size and ever-changing status of the student body. There is value in a systematic quantitative approach to the collection of baseline student experience data for an educational institution towards understanding student trends over time helping to enact important policy, set provision and develop and establish required student supports.

In addition, it is important to consider the synergistic relationship between the collective and the person without which both cease to have meaning and relevance (Gergen, 1999). It is sensible to assume that each student has a variety of complex reasons for studying and their decisions are influenced by the type of person they are, their experiences, culture, background, social and economic status (Darlaston-Jones, 2007). It is also important to consider the role of student motivation (Tinto, 2017), commitment (Tinto, 1993) and persistence (Tinto, 2017), and to recognise that these are not isolated constructs that occur independently of the person or the context in which the person exists (Darlaston-Jones, 2007). Considering this there is value to be gained from understanding the student perspective from a constructivist's worldview, understanding more deeply the student experience, interactions and priorities towards student support solutions. This PhD research includes elements of both in its application of a pragmatist approach to the overall Student Information Project, thus, providing valuable institution-level data on the student experience.

3.3.2 Methodology

3.3.2.1 Quantitative methods

Quantitative research is usually deductive in nature, characteristically starting with a theory or hypothesis that is assessed through observations (Morgan, 2013). This type of research is often used to link causes to effects or understand associations, to answer the research question in an objective manner with unbiased measures (Morgan, 2013). It can be described as a form of empirical research towards understanding a question or investigating a theory using numerical variables that are statistically analysed (Creswell & Creswell, 2017; Yilmaz, 2013). In this current research, the theory of student persistence is examined in terms of the consideration of the relevance of student well-being as an additional important factor to include. Quantitative research emphasises as little impact as possible from the researcher on the data (Morgan, 2013) and is concerned with researching and understanding large numbers of people or population groups in a wide variety of settings (Morgan, 2013).

Noted advantages of quantitative research approaches include short administration times, short data processing times and relatively quick timeframe for obtaining data responses from collection methods such as surveys. Another valuable advantage of quantitative research is the potential for comparisons across, for example groups, populations and organisations, due to the numerical focus of the data, allowing for the estimation of levels of disagreement or agreement between study participants (Choy, 2014; Yauch & Steudel, 2003). As well as these

advantages of quantitative research, some critiques are also noted. The potential impact of the assumption that survey respondents understand questions in the same way the researchers do on the research. In addition, quantitative research outputs often fail to take account of potentially relevant issues such as additional survey material, for instance notes attached to completed surveys (Creswell & Plano Clark, 2017).

3.3.2.2 Qualitative methods

Qualitative methodologies seek “to understand and represent the experiences and actions of people as they engage and live through situations” (Elliot et al., 1999, p.216). This form of research is grounded in the epistemological belief that social phenomena are multifaceted and interconnected thus, they cannot be explained by solitary variables, and that it is inappropriate to use the expression variable when describing qualitative data (Yilmaz, 2013). Thus, qualitative research has a reduced focus on numbers compared to quantitative research and is concerned with the meaning and understanding of social aspects of the world (Braun & Clarke, 2013). This research methodology aims to provide a comprehensive exploration of people in a specific context or environment (Morgan, 2013). Qualitative research also emphasises a subjective approach acknowledging the inevitable involvement of the researcher in collecting, interpreting and ascribing meaning to the data (Morgan, 2013). In this current research, student persistence is examined in partnership with students who have experienced first-year at college, and they are involved in collecting, interpreting and ascribing meaning to their data.

Qualitative methods generate rich data through the description and explanation of participants own experiences, exploring issues that may influence the phenomena of interest. Thus, qualitative methods have strengths in gaining a more extensive understanding of a specific issue of examination (Banister et al., 1994). A noted advantage of utilising a qualitative research approach is that the investigation is broad and unrestricted and as a result there is potential for inclusion of additional insights raised by the participants that may not be on the researcher’s original agenda (Morgan, 2013; Yauch & Steudel, 2003). However, considering this, qualitative research approaches have been critiqued due to their subjectivity as the researchers’ own personal experience and knowledge have the potential to shape their observations, analysis and conclusions (Choy, 2014; Creswell & Plano Clark, 2017; Malterud, 2001; Morgan, 2013). In addition, another limitation is that qualitative findings are not generalisable due to the small numbers of participants, with this methodology best suited

to smaller sample sizes (Creswell, 2013). The time consuming nature of this methodology and the specificity of the contexts explored are also considered to be limitations of this research approach (Choy, 2014; Creswell & Plano Clark, 2017).

3.3.2.3 Multimethod Research

Multimethod research is defined as research that is from a singular paradigm (uses one method, qualitative or quantitative), or multiple paradigms (Morse, 2003), or more than one worldview (Tashakkori & Teddlie, 2010). In multimethod research, the different studies within the research overall do not have to be combined, as each element represents a study in its own right (Morse, 2003; Plano et al., 2016). Underpinned by a pragmatic philosophy, the approach of this research focuses on the selection of appropriate and unique methods in responding to a complex research inquiry (Morse, 2003). Having identified a pragmatic approach, inclusive of qualitative and quantitative research for this current research, a multimethod approach was considered a good fit.

It can be the case in the literature that the terms ‘mixed method’ and ‘multimethod’ (or multiple method) are used interchangeably, causing a lack of clarity in terms of their definition (Anguera et al., 2018). Within multimethod research each method is chosen according to a given criterion, conducted rigorously, and publishable by itself (Hunter & Brewer, 2015; Morse, 2009). A multimethod design requires the researcher to (1) understand the aims and justification of each study (Hesse-Biber, 2010), (2) explicitly explain the paradigms upon which studies are based (Neuman, 2006), and (3) respect the methodological integrity of each study (Morse, 2003).

Multimethod research is multidimensional in nature (Greene, 2015). Different types of research activity (e.g., data collection and analysis) occur within the separate studies of a research project overall (Mingers, 2003). The integration of the outcomes of the studies is not required due to the individual nature of each study within multimethod research (Plano et al., 2016). This differs from mixed method research (Johnson et al., 2007a), where the results from a variety of methodological approaches may be combined in many, or all, of the stages of a study (Tashakkori & Teddlie, 2003). Due to this requirement of combining results, a multimethod design was deemed more appropriate for this current research, as the results of each study are independent of each other. A mixed methodology approach is often used when one method is needed to inform or set the foundation for the other, for example to validate results obtained from one method, or to generalise findings from the qualitative element of a

project (Creswell & Plano Clark, 2011). In addition, in mixed methodological research the same interviews or observations can be used as data for the various components of a research project (although new data may also be required; Thorne, 1994), this is not the case for multimethod research. The results of each study within a multimethod research project are complete in their own right, whereas, in mixed methods the results can be used to supplement a core research project and are not complete by themselves, thus, “can only be interpreted within the core component” (Morse, 2009, p. 1523).

The benefits of using a multimethod approach have been noted in the literature. Adopting this methodology has been said to result in an increased depth of inquiry while improving the reliability and validity of the research findings (Georgsson & Staggers, 2016). The consideration of this will be addressed in Chapter 7 Discussion. In addition to this, Seawright and colleagues advocated that methodological variety is particularly important when complex issues are under investigation, as this approach provides a greater insight into the overlapping and/or different facets of the phenomenon (Seawright et al., 2013). This was deemed especially relevant for this current study, as student persistence is a complex theoretical field. Using a multimethod design is not without challenges; the approach requires the researcher to become familiar with both qualitative and quantitative research methodologies, data collection and analysis which can be time consuming (Creswell & Plano Clark, 2007).

3.4 Research Design

Adopting a multimethod approach in this research was deemed particularly relevant and important for two reasons. Firstly, the remit of the Student Information Project set the criteria of survey development and quantitative data collection on the first-year experience; thus, the researcher identified a knowledge gap towards meeting the project requirement and addressing the international literature. This gap in the literature related the integration of student well-being factors with a suite of student retention factors (Tinto, 1993), towards a better understanding of the factors with the potential to impact persistence. In achieving this the researcher conducted two studies that explore different facets of commitment through a cross-sectional study and a longitudinal study, with the inclusion of integration in Study 2. These studies are closely linked in their concept but are stand-alone in terms of the data generated as Study 1 offers a snapshot of the first-year student experience and Study 2 offers more process-based information of the first-year experience due to the time lapse. Secondly,

gaining the student perspective on the factors with the potential to impact first year persistence was considered to be important by the researcher, adding to knowledge in the area, with relevance to the international literature and the institution project. Thus, Study 3 is focused on the first-year experience offering qualitative results as a stand-alone study.

3.4.1 Study 1

In the first study, a questionnaire was conducted with first-year students during semester one of college. This survey was developed based on the constructs of the Institutional Departure Model (Tinto, 1993) and questions were included to collect information on student demographics, pre-entry attributes, commitments, academic experiences, social experiences and student well-being. The aim of this study was to examine the relationship between student individual, academic and social variables with the addition of well-being variables on first year student institutional and general commitment during the first semester transition to college.

3.4.2 Study 2

In the second study, a similar but reduced questionnaire with a specific focus on well-being constructs and the three dependent variables, was conducted with the first-year students who responded to the first survey, towards the end of semester two of first year in college. This was a longitudinal study within the context of the first year at college. The aim of this study was to examine if student well-being variables during the early transition to college impacted student institutional commitment, general commitment and academic and social integration at the end of first year at college.

3.4.3 Rationale for selection of dependent variables

The quantitative research tools were designed guided by the constructs of the Institutional Departure Model (Tinto, 1993), as previously stated. As the title of this model suggests it describes the process of entering college towards the result of retention or withdrawal. However, in this current research student retention information was not part of the data. Thus, for Study 1 the constructs of “institutional commitment” and “general commitment” were identified as a suitable proxy indicator of likelihood to persist. Student commitment speaks to the degree a student is committed to their education attainment and, also to their commitment to the institution they are a member of (Tinto, 1993). These were selected due to the explanation of student commitment being closely linked with student persistence in that

positive or negative student experiences in college impact persistence through their effect on student commitments (Tinto, 1993, p.115). In addition to commitment, in Study 2 a dependent variable measuring “social and academic integration” was added. This too speaks to the likelihood of student persistence, as positive integration serves to strengthen a student’s commitment and a low degree of integration points to a greater likelihood of departure (Tinto, 1993, p. 116).

3.4.4 Study 3

In this study, a qualitative participatory approach was adopted to gain the student perspective of their first-year experience and persistence. A second-year Student Research Partnership Panel was established to work in partnership with the researchers and guide this research. In addition to this, four 2-part participatory workshops were carried out with second-year students to explore the promoters and barriers of first year student persistence, the support needs, the timeline for such supports and who the support is needed from, from the perspective of the students who have persisted.

3.5 Methodological approach of each study

3.5.1 Study 1

3.5.1.1 Overall aim

To examine the impact of previously theorised student demographic, pre-entry attributes, academic and social variables, with the addition of well-being on first-year student commitment during the semester one transition to college.

RQ1: What student characteristics, experiences and well-being variables are significantly associated with student commitment during the early transition to college?

3.5.1.2 Research Design

Study 1 involved a cross-sectional online questionnaire-based design. Cross-sectional designs are useful for collecting information on exposure to risk factors, as well as information about health outcomes. They can provide a ‘snapshot’ of a population or of an outcome (or multiple outcomes), as well as the social or behavioural characteristics related to it, at a particular time point (Levin, 2006). The survey tool was designed to map on to the conceptual elements of The Institutional Departure Model (Tinto, 1975, 1993), with the addition of student well-

being variables. An extensive literature search was conducted, and measures were selected based on criteria of appropriateness, frequency of use within the literature, reliability, and validity. Ultimately the survey included variables addressing student demographics, pre-entry attributes, academic experiences, social experiences, commitment and well-being variables, see Table 3 below. An online survey was considered a convenient and reliable method for collecting data relating to the factors that impact student persistence as it ensures that each participant is given an opportunity to document their responses anonymously.

3.5.1.3 Measures

3.5.1.3.1 Pre-entry attribute variables in the survey

First generation status was determined by creating a new variable, adapted from an American survey instrument, combining the responses for these questions; ‘Which best describes your father’s/male guardians’ highest level of education?’ with response options; ‘Post-primary Junior Certificate, Post-primary Leaving Certificate, Some College, College diploma, College degree or higher’ (MAP-WorksTM, 2014). The same question was then asked with father replaced by mother/female guardian.

Socio-economic status was measured using the Social Grade Classification Tool (IPSOS, 2009). Participants were asked to ‘Think of the primary earner in your family growing up – which of the following best describes their employment/position?’ with six answer options, (e.g., ‘High managerial, administrative or professional’).

A question was constructed to assess pre-college schooling relevant to the Irish context. Participants scored themselves between 0 and 600 points, with 600 being the highest available score in the State examination system (i.e., the Leaving Certificate). A continuous question was recoded into a categorical question with categories of Leaving Certificate points; 0-300 points, 301-400 points, 401-500 points and 501-600 points. All other variables are outlined in Table 3 below. Please see Appendix 1 for the complete survey tool.

Table 3

Summary of Academic, Social, Commitment and Well-being Measures, along with Cronbach's α as a Measure of Internal Consistency.

Construct	Measure	Example question	Number of items	Cronbach's α
Academic experiences	Academic environment (Yonghong, 2016)	'My academic programme is of good quality'	4	$\alpha = .695$
	Academic behaviours (MAP-Works™, 2014)	'To what degree are you the type of person who takes good notes in class'	7	$\alpha = .735$
	Assessment of academic course (Careers Services)	'Do you believe your academic programme is right for you?'	n/a	n/a
	Academic self-efficacy (MAP-Works™, 2014)	'To what degree are you certain you can do well on problems and tasks assigned to your course?'	3	$\alpha = .836$
Social experiences	Extra-curricular activities	'During term time, to what degree do you participate in a Student Society?'	4	$\alpha = .695$
	Peer connections (MAP-Works™, 2014)	'On campus to what degree are you connecting with people who share a common interest with you?'	3	$\alpha = .864$
Health outcomes	Self-reported general health (Currie et al., 2010)	'Would you say your health is excellent, very good, good, fair or poor?'	n/a	n/a
	DASS-21 Depression (Lovibond & Lovibond, 1995)	'I felt that I had nothing to look forward to'	7	$\alpha = .904$
Risk behaviours	Cannabis use (Devised by the authors)	'On how many occasions, if any have you had cannabis in the past 12 months?'	n/a	n/a
	Hazardous drinking AUDIT-C (WHO)	'In the past year how often did you typically get drunk?'	3	$\alpha = .805$
Health behaviors	Physical activity (Currie et al., 2010)	'Over the past 7 days, on how many days were you physically active for at least 30 minutes per day?'	n/a	n/a
Commitment	Student adaptation to college questionnaire (Baker & Siryk, 1989)	General; "I am pleased about my decision to attend college in general"	4	$\alpha = .805$

Student adaptation to college questionnaire (Baker & Siryk, 1989)	Institutional; “I expect to stay at this college to complete my course”	3	$\alpha = .824$
---	---	---	-----------------

3.5.1.4 Piloting

The survey instrument was piloted with a convenience sample of five undergraduate students based on access. Based on the feedback from these students, any ambiguous questions were rephrased, and some minor edits were made to the format of the survey.

3.5.1.5 Sampling, Recruitment and Data Collection

A convenience sampling design was used for Study 1. Convenience sampling is a type of nonprobability sampling in which people are sampled simply because they are ‘convenient’ sources of data for researchers (Lavrakas, 2008), this does not rely on underlying theories or a set number of participants. Within the context of the Student Information Project this sampling was deemed appropriate to give every student the opportunity to participate. A cross-sectional web-based survey was conducted in October 2016, approximately week 6 of first year. All first-year students ($n=5,517$) were invited to participate using a list of student emails obtained from the University Register in semester 1, 2016. All first-year students were sent an information email approximately one week prior to the invitation to participate in the survey introducing them to the research and the survey that would follow. One week later each student was sent an email with the same information and an invitation to participate in the study, this invitation email contained a live link to participate in the survey. This email also explained that by clicking on the live link they were consenting to participate. Student participation was anonymous and voluntary.

3.5.1.6 Inclusion/Exclusion Criteria

Only first year, full-time students aged between 17-22 years were included in this study.

3.5.1.7 Participants

The sample was composed of 574 first year students, with 66.6% females and 33.3% males. No non-binary students responded. The response rate was calculated to be 10.4%, similar to other survey studies conducted with undergraduate students (Thomas, 2012). First generation students composed 27.2% of the sample.

3.5.1.8 Data screening and cleaning

The survey overall included some questions relating to campus services, course information, lecture hours and food availability on campus as part of the Student Information Project, however, these were excluded from this study due to relevance to the research question. The survey took approximately 20 minutes to complete. Initial steps to clean the data included; checking student age, study status, and year of study. If these were not in line with inclusion criteria they were removed from the sample. In addition, any incomplete surveys prior to the compulsory questions were removed (n=174), with no evidence of any systematic reason for stopping. The data set was checked for general errors and outliers; any obvious errors identified in the data file were corrected (e.g., age identified as 199 was changed to 19) and missing values checked and substituted by '999'. The variables measuring academic environment, academic self-efficacy, academic behaviours, extracurricular activities, peer connections, depression, hazardous drinking and student commitment were composed of numerous scale items, thus all negatively worded items were reverse coded before total scores were computed for each scale and normality of scores was assessed.

3.5.1.9 Data Analysis

Firstly, descriptive statistics for the sample were computed for the two response variables, general commitment and institutional commitment. Each of these two response variables are ordinal in nature so an ordinal logistic model analysis was utilised to study the relationship between each of these and the various input variables. All analysis results are presented in Chapter 4. All analyses were performed with IBM SPSS 25.0 (IBM Corp, 2017) and Minitab 17 Statistical Software (2010). Statistical significance was established a priori at $p < 0.05$. See Chapter 4 where the data is presented.

3.5.2 Study 2

3.5.2.1 Overall aim

To examine what student well-being variables are significantly associated with student commitment and integration at the end of first year of college.

RQ2: Is there a change in student commitment from early first year to the end of first year?

RQ3: What semester one student well-being variables are significantly associated with student commitment and integration at the end of year one at college?

3.5.2.2 Research Design

Study 2 of this research involved a longitudinal online questionnaire-based design, building on Study 1. In research that uses a longitudinal design a single group of participants are followed and assessed at more than one time point (McKinlay, 2011). This study had approximately six months between Time 1 and Time 2 data collection, allowing exploration of the first year of college experience within a longitudinal design. Longitudinal studies are particularly useful for evaluating the relationship between risk factors and the development of an outcome (Caruana et al., 2015). Using a similar survey tool as Study 1, with the addition of a question to measure student academic and social integration, Study 2 examined the impact of semester one first-year student well-being on end of first year student commitment and integration.

3.5.2.3 Measures

The same well-being and student commitment variables were used as in Study 1 with the addition of a Social and Academic Integration question. This question was sourced from the American “College Senior Survey” (Higher Education Research Institute, 2016), with student being asked to respond to the following on a 5-point likert scale; “To what extent do you agree or disagree with the following statements?” “I feel I am a member of this college”, “I see myself as part of the campus community”, “I feel a sense of belonging to this campus”, “If asked I would recommend this college to others”. The variables measuring student commitment, integration and depression were composed of numerous scale items, thus all negatively worded items were reverse coded before total scores were computed for each scale.

3.5.2.4 Sampling, Recruitment and Data Collection

A convenience sampling design was used for Study 2 of this research. In March 2017 all first-year student who completed the Study 1 survey and who provided a follow-up email address were invited to participate in the second survey (n=492). These students were sent an information email approximately 1 week prior to the invitation to participate in the survey introducing them to the research and the survey that would follow. One week later each student was sent an email with the same information and an invitation to participate in the study, this invitation email contained a link to click on to participate in the survey. This email also explained that by clicking on the link they were giving consent to participate. Student participation was anonymous and voluntary.

3.5.2.5 Inclusion/Exclusion Criteria

Only first year full-time students aged between 17-22 years who completed the first survey, were included in this study.

3.5.2.6 Participants

A sample of 187 first-year student completed both surveys, aged between 18 and 22 years, with 137 females (73.3%) and 50 males (26.7%). More female students continued to participate in Time 2 (73.3%), compared to the overall sample at Time 1 (66.6%). This points to a gender imbalance in the sample, with approximately 60% of the overall first-year student cohort in the academic year 2016/2017 being female. The response rate was calculated to be 38%, similar to other national quantitative student survey research (Higher Education Authority, 2019). The sample composition from Time 1 data collection and Time 2 are generally comparable with reference to first generation status, commitment, believing they are on the right academic course, hazardous drinking and cannabis use. However, self-rated health and depression showed some differences, with Time 2 respondents reporting improved self-rated health and rates of depression. This might suggest that students who participated at Time 2 were less likely to be experiencing challenges in relation to their well-being, thus, are potentially more engaged. See Table 4 below.

Table 4*Sample Comparisons Across Time 1 and Time 2*

Variable	T1 (n=574)	T2 (n=187)
Institutional Commitment		
Very low	3.1%	3.7%
Low	6.1%	7.0%
Moderate	23.9	19.8%
High	66.8%	69.5%
General Commitment		
Very low	4.2%	4.8%
Low	4.2%	4.8%
Moderate	17.0%	13.9%
High	74.8%	76.5%
Gender		
Male	33.3%	26.7%
Female	66.6%	73.3%
First generation status	27.2%	21.9%
Right academic course	71.8%	73.8%
Depression		
Normal	52.4%	58.1%
Mild	14.3%	13.8
Moderate	16.6%	16.3
Severe	8.0%	4.4
Extremely severe	8.7%	7.4%
Self-rated health		
Excellent	9.1%	10.2%
Very Good	35.7%	46.0%
Good	38.7%	32.1%
Fair	15.0%	10.2%
Poor	1.6%	1.6%
DASS Hazardous Drinking		
Normal range	32.5%	35.5%
Hazardous range	67.5%	64.3%
Physical Activity		
Below recommended	67.2%	75.9%
Achieving recommended	32.8%	24.1%
Cannabis use (12 months)		
Never	65.3%	65.2%
1-5 times	21.0%	19.3%
6 – 9 times	4.5%	5.3%
10+ times	9.2%	10.2%

3.5.2.7 Data Analysis

Firstly, descriptive statistics for the sample were computed for the three response variables, general commitment, institutional commitment and integration. A paired-sample t-test was used to assess if a change occurred in General Commitment and/or Institutional Commitment over time, between early first year (Time 1) and end of first year (Time 2) in college. Finally, each of the three response variables are ordinal in nature so an ordinal logistic model analysis was utilised to study the relationship between each of these and the various input variables. All results of analysis are presented in Chapter 5. All analyses were performed with IBM SPSS 25.0 (IBM Corp, 2017) and Minitab 17 Statistical Software (2010). Cases were excluded if they were missing the data required for the specific analysis. Statistical significance was established a priori at $p < 0.05$.

3.5.3 *Quantitative Research Reliability and Validity (Study 1 & 2)*

Reliability in quantitative research refers to the extent to which a specific test, tool or procedure, for instance a questionnaire, will yield similar results in alternative situations, with the assumption that nothing else has changed. Validity is concerned with the degree to which what is measured relates to the intended research question (Roberts et al., 2006). For a research study to achieve an acceptable level of quality, evidence of how these factors have been considered should be considered and documented.

3.5.3.1 Internal Validity and Reliability

The survey items used in the quantitative aspect of this study were selected on criteria of appropriateness, frequency of use within the literature, reliability, and validity. The surveys conducted in Study 1 and Study 2 contained several scales previously shown to have reliability and validity in the literature. Listed above in Table 3 are the scales, the number of items in each scale, and the alpha (the measure of the internal consistency or reliability of scores) based on data in this research. To check the internal consistency of the scales utilised in this current research, the Cronbach's alpha coefficient (CAC) was computed using the reliability analysis function of the scale analysis in SPSS version 25. Cronbach's alpha coefficient value greater than 0.6 is acceptable (Hair, 2006; Hinton et al., 2004).

Five survey items were selected from the MAP-Works research-based, comprehensive, student retention and success system created through Ball State University (MAP-Works™, 2014). These items were used for over a 15-year period at Ball State University, and during

this time the validity and reliability were tested several times. Face validity was examined through a panel of students, bolstering confidence that the questions on the MAP-Works survey are “reasonable,” and that it is free of both ambiguous questions and questions that ask about multiple concepts. Cronbach's Alpha, α , was used to determine the reliability of the study scales including academic behaviours ($\alpha=.80$), academic self-efficacy ($\alpha=.83$), and peer connections ($\alpha=.93$).

Student General Commitment and Institutional Commitment were measured using a 7 item sub-set of the Student Adaptation to College Questionnaire (SACQ), with General Commitment measured using 4 items ($\alpha=.805$), and Institutional Commitment measured using 3 items ($\alpha=.824$). The Student Adaptation to College Questionnaire (SACQ) was developed in 1984 as a 52-item self-report instrument to assess students' adjustment to college (Baker & Siryk, 1989). It has been referred to as the most popular multi-dimensional questionnaire to measure students' adaptation to college (Grama, 2018). Validity has been demonstrated on the full scale (Baker & Siryk, 1989; Beyers & Goosens, 2002; Grama, 2018; Rodríguez-González et al., 2012) and on each/or some of the subscales independently (Baker & Siryk, 1989; Beyers & Goosens, 2002; Napoli & Wortman, 1998). Barker and Siryk recognised the usefulness of the application of subscales, rather than the full scale in many student activities, interventions and counselling within education institutions, and also aimed for the use of the survey constructs as dependent variables in investigations pertaining to the role of personality and environmental determinants of adjustment to college (Barker & Siryk, 1989). Thus, this research uses 7-items to represent student commitment during the first-year transition to college.

Depression, Anxiety and Stress Scale (DASS-21) is a self-report measure in which participants rate the frequency and severity of experiencing negative emotions over the previous week. The scale contains 7 items on depression ('I felt that I had nothing to look forward to'), 7 items on anxiety ('I felt close to panic') and 7 items on stress ('I found it difficult to relax'). Using recommended cut-off scores (Lovibond & Lovibond, 1995), Depression, Anxiety, and Stress were highly significantly correlated ($p < 0.000$), so to avoid possible issues with multicollinearity, only Depression was used in the analysis. This scale has been used with college students internationally to assess their mental health (Ramón-Arbués et al., 2020). In Ireland, the MyWorld2 study collected data from a sample of 8,290 young adults aged between 18 to 25 years, with 42% reporting within the normal depression and anxiety emotions range, 20% and 21% respectively within the moderate range

and 10% and 19% respectively within the very severe range (Dooley et al., 2019). With similar findings in this study, normal depression at 52.4%, moderate at 16.6%, and extremely severe at 8.7%, and normal anxiety at 49.0%, moderate at 20.2%, and extremely severe at 13.9%, thus, identifying the sample of students is reasonably representative when compared to a national study.

The AUDIT was developed by the World Health Organisation (Saunders et al., 1993) as a screening tool for hazardous alcohol consumption. The AUDIT consists of 10 items designed to measure three content domains: 1) alcohol consumption, 2) signs of alcohol dependence and 3) alcohol-related harm. According to the WHO recommended cut-offs (Babor et al., 2001), participants can be classified as within the: 1) normal drinking range, 2) problem drinking range, 3) harmful and hazardous drinking range and 4) having a possible alcohol dependence. The AUDIT-C is a modified version of the 10 question AUDIT instrument, allowing participants to be identified as 1) normal drinking range, 2) problem drinking range, 3) harmful and hazardous drinking range. The shorter AUDIT-C measure was used for this current study.

The measure of the academic environment was sourced from (Yonghong, 2016), a study conducted with approximately 702 undergraduate students, with reliability a Cronbach's Alpha, α .76 in the original study, and α .69 in this current research. A measure for extracurricular activities was composed by the authors to assess student participation in the specific activities offered at the education institution being studied. This was a 4-item scale and a Cronbach's Alpha, α .69 suggested reasonable reliability of the inclusion of the data obtained.

Finally, in Study 2 a new and additional measure was included in the survey; a measure of academic and social integration sourced from the Cooperative Institutional Research Program, College Senior Survey (Higher Education Research Institute, 2016). This 4-item scale has been used for many years in a large-scale American College student survey confirming its reliability ($\alpha = .903$).

3.5.3.2 External Validity - Generalisability

Many of the survey items used in this current research are sourced primarily from first-year college student surveys and have been utilised in large scale samples of students Internationally previously, thus the findings that emerged from Study 1 and Study 2 are likely to be applicable to college-going youths in Ireland.

3.5.4 Study 3

3.5.4.1 Overall aim

To work in partnership with second year students to explore the first-year experience towards understanding how to support first-year student persistence.

RQ4: What are the promoters and barriers to student persistence experienced by first year students?

RQ5: What are the specific supports, when are they needed, and who are they needed from during the first year at college?

3.5.4.2 Research Design

3.5.4.2.1 Participatory Research

A qualitative participatory research design was used for this study. Although youth involvement in decision making that affect their lives is enshrined in Irish (Department of Children and Youth Affairs, 2015) and international law (UNCRC, 1989), until relatively recently young people have mainly provided answers to research questions, rather than contributed to developing questions for use in research. Participatory research differs from conventional research in that it focuses more on carrying out research with people, and less on carrying out research on people (Cornwall & Jewkes, 1995). The workshop methodology utilised in this study was borrowed from previously tested participatory research processes and techniques and adapted to enable student partnership in the research study. Participatory research is underpinned by the epistemological assumption that knowledge is socially constructed and so research methodologies that enable social, group or collective examination of life experiences, of knowledge and power are more meaningful (Hall, 1992). In essence, participatory research methods aim to plan and conduct the research process in collaboration with those people whose experiences and behaviours are under investigation (Bergold & Thomas, 2012).

In participatory research there are no strict methodological conventions or explicit approaches to adhere to. The subject matter, methods and techniques undertaken in a research study should stem from those involved and the context in which they occur (Hall, 1992). Data quality should be interpreted based on the rigour of the study protocol. With young people participatory research approaches such as focus groups and interviews, and techniques such

as timelines, mapping, matrices, cartoons, and visual aids including photos, collage, sandboxing, charts and diagrams, have been successfully employed (Kesby et al., 2005; Mannay et al., 2017; Thomas & O'Kane, 1998). These approaches allow participants to create “inclusive accounts using their own words and frameworks of understanding” (Pain & Francis, 2003, p. 1).

The approach of the current study is consistent with Lundy's Model of Child Participation (Lundy, 2007) and Article 12 of the United Nations Convention on the Rights of a Child (UNCRC, 1989). Lundy's model provides a strategy for conceptualising a child's right to participation, as laid down in Article 12. Respecting the rights of children and young people to be heard in matters that directly affect their lives is an established strategic principle in Ireland and internationally (Department of Children and Youth Affairs, 2015). In Ireland, Lundy's Framework is recognised by the Department of Children and Youth Affairs as a guiding framework for youth inclusion and incorporates four key criteria when working with young people towards participation. First, young people must be provided with a Space and then a Voice to express their opinions. In addition to this their opinions must be listened to by an Audience with due Influence (Department of Children and Youth Affairs, 2015). This study was designed to enable all four criteria of this model utilising a multi-staged approach, like other participatory research with young people (O'Higgins & Nic Gabhainn, 2010) to provide a pathway of best practice towards a better understanding of this student issue.

In addition, this methodology was considered preferable to other qualitative research approaches for this current study as it removes the researcher filter inherent in the analysis of most forms of qualitative data, it has the potential to increase the capacity of research participants, it encourages the active participation of participants in all aspects of the research process, giving them free hand to generate, categorise and analyse the data with limited interference. This methodology engages young people to make decisions regarding issues that are relevant to them, allows them to be treated as active, rather than passive, members of a research process, enhances a sense of belonging and feelings of being valued within youth, and enhances their ability to critically think about and apply their skills to a research project (Checkoway, 2011). Advocates of participatory approaches recommend that the methods utilised should be designed to reflect the research questions, recognise limitations of resources and time, be conscious of sensitivities and ethical issues, and take into consideration the specific characteristics and requirements of the participants, along with the physical setting and cultural context in which it is undertaken (Christensen & Prout, 2002).

3.5.4.2.2 Student Research Partnership Panel

The development of the Student Research Partnership Panel was guided by the approach of Jigsaw Ireland's youth advisory panel methodologies (Illback et al., 2010). Jigsaw Ireland is a national youth mental health organisation with a focus on youth inclusion and participation. This current study involves the researched as partners, from study protocol development through to data analysis and presentation. This included the student panel themselves identifying their role at the beginning of the process, deciding how this role would be implemented, their level of participation, making decisions in partnership, similarly to the approach adopted to other studies (Illback et al., 2010; O'Hara et al., 2017). This research approach offered the students an opportunity, in keeping with national and international strategic goals, to become active citizens (Department of Children and Youth Affairs, 2015) addressing this student persistence problem.

3.5.4.2.3 Summary of the research design elements

The methodology is best explained in three interlinked phases. The Phase 1 involved the establishment of the Student Research Partnership Panel (SRPP) as partners in the research process. Phase 2 focused on recruitment of a wider student pool and their participation in group data collection workshops. The workshops involved each group of students (four groups were recruited) participating in two workshops, analysing and presenting the data by theming, voting and developing schema. The two workshops were no more than 1 week apart to ensure continuity. Phase 3 of the research involved the SRPP reviewing the data from all group workshops, identifying themes and presenting the "data story" for the overall project.

3.5.4.3 Sampling and Recruitment

In January 2017 recruitment began for Study 3. A purposive sampling design was used for Phase 1 of this research; with second year students from one higher education institution taking part. A purposive sample involves the deliberate selection of individuals or groups of individuals who can and are willing to provide information on an issue by virtue of knowledge or experience (Etikan et al., 2016). It is a non-random technique that does not rely on underlying theories or a set number of participants. This sampling method was used for practical and financial reasons. Participation was voluntary and all students signed consent forms before participation.

3.5.4.3.1 Student Research Partnership Panel Recruitment

The SRPP project was advertised using a variety of online and word-of-mouth channels on campus and four students volunteered to participate, the desired number of students to maintain a manageable group size for the process of planned work planned. Each student participant was awarded ECTS credits for their participation in the project and a voucher to acknowledge their contribution when the project ended.

3.5.4.3.2 Participatory Research Workshop Recruitment

Second year students were contacted via various campus groups and recruited. Some students who participated were eligible to receive class credit for research participation.

3.5.4.3.3 Inclusion/Exclusion Criteria

Only second year full-time students from one higher education institution were included in this study.

3.5.4.3.4 Participants

Student Research Partnership Panel

The panel comprised of three females and one male, ranging in age from 19 to 47 years (three participants were aged under 23 years) and all were second year students. Three of these students were representative of the sample age range for the quantitative studies (17 to 23 years), with the addition of one mature second year student who expressed a genuine interest in participating in the project. All 4 students attended and participated fully in all four of the research project meetings.

Participatory Research Workshops

A total of 28 second year students participated in the 2-part participatory workshops, 18 female and 10 males. The participants were aged between 18 to 47 years (with 25 participants aged between 18 to 23 years). The participants were randomly assigned to each workshop group based on the order in which students volunteered. The students were primarily from the College of Arts, Social Sciences, and Celtic Studies (n=19), Biomedical Science (n=4), Law (n=1), and Business (n=4). See Table 5 below for a presentation of the workshop attendance.

Table 5

Participatory Research Workshop Attendance

Participatory Research Group	Workshop 1 attendance	Workshop 2 attendance	Number of participants absent
1	10	8	2
2	7	7	0
3	5	4	1
4	6	6	0

3.5.4.4 Piloting

The workshops were piloted with a group of six second year students and all students were able to participate fully, without need for subsequent adaptation or changes. Due to this, the data from this group were included in the main study.

3.5.4.5 The role of the Student Research Partnership Panel

Once the SRPP was established the researcher and the panel arranged an initial meeting to discuss the project in more detail. The panel met with the researcher on four occasions during the duration of the project and all four members attended each meeting/workshop. In Meeting 1 the duties of the panel were discussed and agreed upon. These included; reviewing the drafted research questions and the data collection workshop methodologies, participation in the workshops to gain an in-depth understanding of the process, helping with recruitment of students to the workshops, and review, analysis and clear presentation of the findings of the student-generated data. The students were assured of the value of their opinions and input and were asked to be open and honest during the process. If the students did not agree with any part of the research, they expressed this, and a change or solution was agreed upon by the students. Meeting 2 and Meeting 3 were for the SRPP to participate in the workshops and Meeting 4 was for the Panel to review all the student data and develop their data story. The panel involvement began after the overall study idea, research question and workshops were drafted for ethical approval, by providing input on the best way to ask the research question of the other students, and in developing the workshop methodologies. In addition to this, the help and participation of the student partnership panel writing-up and presenting the data for publication in the peer-reviewed paper (Chapter 6) upholds their right to space and voice to share their opinions and perspectives with an audience. Separately the findings of their

research were shared with the management of the education institution where this research was conducted to ensure the audience has due influence to act upon the research findings (Lundy, 2017).

3.5.4.6.1 Data Generation and Analysis

3.5.4.6.1.1 Participatory Workshop 1 aim

Workshop 1 provided students with a “blank canvas” to explore the promoters and barriers of first year college persistence. During this workshop, the student activities were guided to answer each of the following four research questions;

- What promotes student persistence during first year at college?
- What prevents student persistence during first year at college?
- What supports are needed to help students persist during first year at college?
- Who is this support needed from?

3.5.4.6.1.2 Participatory Workshop 1 data generation

Each participant was given Post-Its and asked to write one answer in response to “what are the promoters to student persistence during first year in college?” then all Post-Its were placed on a display space. Secondly, they were asked to do the same for the question; “what are the barriers to student persistence during first year in college?” and these Post-Its were placed in a separate designated space. This was an individual activity carried out in a quiet space.

3.5.4.6.1.3 Participatory Workshop 1 data analysis

Data categorising: This was a group activity completed separately for the promoter data and barrier data. To help with this activity the researcher acted as a non-directive facilitator to the process moving the Post-Its into groupings as directed. The group read over all the Post-Its and moved them into similar groupings. The grouping continued with similar responses being put together and different categories emerging until all the Post-Its were sorted. Descriptive labels were created by the group members for each theme that emerged and the responses that made up the were added to a large sheet of paper to display the theme fully. When each theme was displayed the students voted on the promoters and barriers separately. First each participant was given five votes to identify their most important/or top promoters to student

persistence. This same activity was then carried out on the barrier themes. The researcher then participated by counting the votes and the top barriers and promoters to student persistence were identified. See Figure 4 and Figure 5 below.

Figure 4

Example of Promoter Themes, Post-Its Assigned, and Votes by The Participant.



Figure 5

Example of Barrier Themes, Post-Its Assigned, and Votes by The Participant.



3.5.4.6.1.4 Participatory Workshop 1 data generation

The participants were divided into 2 groups; one group working on the barrier themes and one group working on the promoter themes that emerged from the previous activity. Each group was given a pre-prepared chart with the top barriers or promoters written into the centre layer of the chart and were asked to complete the two remaining layers of by answering the following;

Layer 2 - Identify the actions/supports students need to address the barrier/promoter?

Layer 3 - Identify who needs to be involved in this process?

The responses were written onto the pizza chart illustration provided by the students as they discussed each promoter or barrier.

the support on and makers to identify how long the support is required along the timeline. When each group completed their Timeline, they were asked to review it and add any additional supports they thought were important in red marker to help differentiate them.

Figure 7

Example Timeline of Supports



3.5.4.6.3 Student Research Partnership Panel Data Analysis

The final researcher and SRPP meeting aimed to review the pizza chart data from all the group workshops and to tell the overall “data story”. This workshop had four central aims, to identify:

- The key barriers to persistence during first year in college.
- The key promoters to persistence during first year in college.
- Who were the primary sources of help/support identified by the students?
- The key supports students need and when they need them during year one at college.

This Workshop was carried out in four parts, with each part adopting the same activity, theming the student generated data. The student research partnership panel read the data to become familiar with it and immediately obvious groupings started to emerge. The student’s decided the way they wanted to record this was by colour coding the similar categories. Thus,

part one involved the SRPP reviewing the barriers data, where all barriers were categorised into related themes based on the colour they were marked. For example, all themes related to “course” were red, “friends” were blue etc. until all related themes were merged resulting in the key barriers. This activity was repeated for the “promoters”, “supports” and “who” grouping from the group workshops.

3.6 Qualitative Research Reliability & Validity

Lincoln and Guba (1985) stated that there are four important criteria to be considered for quality assessment of qualitative data; credible, transferable, dependable and confirmable. Creswell (2013) describes the purpose of validation in qualitative research as the utilisation of strategies to evaluate the accuracy of a research study. He outlines eight strategies for the validation of qualitative research and suggests that researchers engage in at least two of these during their research. These strategies are; prolonged engagement and persistent observation in the field, triangulation, peer review or debriefing, negative case analysis, clarifying researcher bias, member checking, rich and thick descriptions and external audits (Creswell, 2013). Four of these strategies were undertaken as part of the qualitative element of this research and are explained in the following sections. These included triangulation, peer review or debriefing, clarifying researcher bias, and rich and thick descriptions.

3.6.1 Credibility

Triangulation refers to the process of comparing research findings with one or more sources of existing evidence in the pursuit of verifying a phenomenon or theme in a study and so improving its credibility (Creswell & Miller, 2000; Hammersley, 2008). Triangulation does not refer to one specific method, and several different forms of triangulation are evident in the literature often based on philosophical or methodological perspectives (Creswell & Miller, 2000; Hammersley, 2008). This research employed triangulation in two forms: across methods and across researchers. Triangulation across source (i.e., participants in each workshop provided data on the same questions), and across researchers (i.e., participants acted as ‘the researcher’ to provide an alternative narrative and perspective of the findings of other workshops). As well as the workshop procedure, substantiating documents and findings in the existing literature were also accessed to contextualise the behaviours and attitudes of the population under study.

Peer review and debriefing involves the review of the research process and data by someone external to the main researcher (Creswell & Miller, 2000). The peer de-briefer provides support to the researcher, but also plays the ‘devil’s advocate’ by challenging and questioning their methods, meanings and interpretations towards fine tuning the methodology and conclusions (Lincoln & Guba, 1985). Regular debriefing sessions were carried out in this research between the researcher and the PhD supervisor as part of the NUI, Galway Structured PhD programme. These sessions were held in advance of data collection to discuss the workshop protocols, processes and materials, as well as after each workshop to review the process and findings. The supervisor provided expert consideration, feedback and advice to enhance the researcher idea developing and implementation processes.

3.6.2 Transferability

Describing the research setting, participants, and themes in rich detail is a technique used to establish credibility in a qualitative study (Creswell & Miller, 2000). A detailed and comprehensive description of the research enables readers to assess the applicability and transferability of the findings to other situations or settings (Creswell, 2013; Creswell & Miller, 2000; Lincoln & Guba, 1985). Lincoln & Guba (1985) emphasised the responsibility of the researcher towards ensuring the provision of adequate and necessary contextual information about the workshop sites to allow the reader to consider the transferability. However, other qualitative researchers argue that the nature of qualitative research itself, in being concerned with a small specific group of individuals or environments, restricts the generalisability of such studies to other populations or contexts (Malterud, 2001; Shenton, 2004). Rich and thick descriptions of the methodological procedures for Study 3 are provided in Section 3.5.4 previously in this chapter, including theoretical underpinnings, methodological considerations, characteristics of the participant who took part, exclusion criteria for those who did not, and a thorough description of the data collection methods utilised. Furthermore, a detailed description of the findings, including themes and how these emerged are described and reported in Chapter 6.

3.6.3 Dependability

Dependability is recommended as an alternative component of rigor in qualitative research linked to the conventional measure of reliability used in quantitative research (Guba & Lincoln, 1989; Lincoln & Guba, 1985; Ulin et al., 2012). The main concern at the core of dependability is to ensure the research process is carried out in a consistent manner according

to specific methodological conventions and is free from variation that may affect the data (Ulin et al., 2012). As a researcher, the best way to achieve this aim is to provide as detailed account as possible of the research methods and decisions made throughout the process. For this current research this information, an in-depth account of the qualitative methodology of Study 3 is provided in Section 3.5.4 earlier in this chapter.

3.6.4 Confirmability

Qualitative research involves a central role of the researcher in identifying issues to explore, interpreting information and findings, and managing the research process, acknowledging the experiences and values of the researchers which are inseparable from the process (Ulin et al., 2012). However, being conscious of the researcher's personal subjectivity is an important element in qualitative research validation. Confirmability refers to the method of distinguishing whether the researcher, as a co-participant in the research, has preserved the distinction between their own individual values and those of the research participants.

Lincoln and Guba (1985) suggest the usefulness of field notes for on-going critique and self-appraisal by the researcher, coupled with the use of an audit trail toward recording the rationale and process leading them to research decisions and conclusions (Rolfe, 2006; Ulin et al., 2012). With this in mind, records of raw data, data reduction and analysis products, data reconstruction and synthesis products, and instrument development information were kept by the researcher as recommended by Lincoln and Guba (1985). These materials were consulted, considered and reviewed throughout Study 3 and were stored in a secure place, available for external inspection and verification.

3.7 Reflexivity

I am a PhD candidate in the School of Psychology, with a background in Health Promotion. I began studying Health Promotion due to my interest in the wider determinants of health, and the creation of a supportive environment around people. Over many years, my work in this area focused me on youth health, which led on to my interest in creating a supportive environment for youth well-being and achievement. During my time working in research with young people I began to think about how all the decisions we make, even from a young age when we begin to gain independence have the potential to impact our health and life potential. This led me to develop a particular interest in creating supportive environments during the transition to college towards well-being and persistence.

As a multimethod, Health Promotion researcher I do not conform strictly to either a constructivist or positivist epistemology, though I do believe my natural inclination is of a constructivist worldview. I consider children, young people, and adults to be experts in their own lives and experiences, and I recognise the value they can bring to the research process. Having said that I do take a pragmatic approach to the research process acknowledging the value in both the quantitative and qualitative research paradigms as shown in this PhD thesis. This research has taught me the importance of a pragmatist approach when working as a researcher. It is important to take research grants and funding opportunities and utilise my skills and abilities to work within the parameters of each project towards making relevant policy and practice recommendations aimed at enhancing college students' experiences.

I am a first-generation college student. My experience of college was not without challenges, so I do believe this sparked my interest in supporting students to pursue their educational goals and reach their potential. I also believe my family background, with parents who did not have the opportunity to go to college makes me value my education and the opportunities it has given me in terms of my everyday life so much. I wish for all first-generation students to persist in college and thus be the change in their family trajectory. I am conscious of my college experience, and I understand that persistence can be a challenge for many students, for many reasons, thus I have a sense of empathy and a keen interest in the reasons why a student may not persist, and importantly how they can be supported to persist. I think my past experiences also solidify my interest in participatory research, I am passionate about inclusivity and communication. I believe in the value of sharing experiences and knowing that you are not alone in the challenge's college life brings.

I am very grateful for the knowledge, experiences and skills I have gained while studying on the Child and Youth Structured PhD Research Programme. This programme provided very valuable theoretical, policy and methodological learnings that helped me develop as a researcher. The variety of lectures from many departments (e.g., Psychology, Sociology, Law, Education, Geography) helped me understand the larger context within which youths develop and the importance and implications of each of these to youth outcomes. One of the aims of the Research Programme is to prepare participants to conduct high quality policy and practice relevant research with children and young people. I feel like I have achieved this with this current research.

3.8 Ethical Considerations

Ethical approval for the quantitative and qualitative studies were given by the Research Ethics Committee, NUI Galway. It is imperative that consent be obtained from research participants before any research is carried out or data collected (Shaw et al., 2011). Informed consent is usually sought from participants to minimise any risk or harm that might accrue to the research participant during the research. For both the qualitative and quantitative aspects of this study, active consent from the participants was sought before the questionnaires were distributed and before the participatory workshops took place; and voluntary participation was ensured throughout the process of data collection. Only three participants who agreed to take part in the participatory workshops withdrew their participation prior to the second workshop, citing clashing timetables.

Furthermore, a major concern in research ethics is the protection from, or minimising risks to research participants. Towards minimising embarrassment and/or distress a participatory approach was taken in designing the workshops to ensure that participants had control over their level of participation without being put on the spot by the researcher or other participants and were able to avoid speaking in front of a larger group. This non-invasive, non-confrontational approach also helped to reduce the power imbalance between the researcher and the researched. Towards minimising any issues of confidentiality and privacy, participants were asked not to disclose or discuss their own personal experiences regarding the research topic and to instead approach the workshop activities from a general first-year student perspective providing their own critique, assessment and ideas around the workshop materials. Participants were also reminded at the beginning of the workshop that all discussions during the workshop were confidential and should not be discussed outside of the workshop setting, as well as being assured of their own anonymity being preserved throughout the process. Personal names were only gathered for the purpose of consent and were not recorded in electronic form or linked with data collection in any way. Furthermore, the participants were informed that the data collected, including audio and field notes, would be stored in a secure office in NUI Galway, accessible to the researcher and supervisor only.

Chapter 4 Peer-reviewed Paper 1

Variables effecting first-year student commitment during the transition to college in Ireland.

Published in *Health Promotion International*, 2020; 35, p. 741–751.

Natasha Daniels¹, Jerome Sheahan², Padraig MacNeela¹

School of Psychology, National University of Ireland, Galway, Ireland¹.

School of Mathematics, Statistics and Applied Mathematics, National University of Ireland, Galway, Ireland².

Abstract

Objectives: Third-level student attrition rates internationally are a cause for concern. Thus, student retention and academic success are top priorities for colleges, and students alike. In addition to this, student well-being is a growing public health concern. This study explores the need to incorporate well-being as a predictor in traditionally academically focused models of student persistence during the transition to college.

Methods: A cross-sectional web-based survey was conducted with 574 first year students aged 17-22 attending a university in Ireland to examine the effect of student persistence and well-being variables on student commitment during the transition to college.

Results: This study highlights the connection between student academic, social and well-being variables during the transition to college within the fitted models that emerged from the data. Student well-being plays a key role ensuring student persistence during the transition to college.

Conclusions: The results support our hypothesis that many student variables have the potential to substantially impact student commitment during the first-year transition to college. It is therefore important for education institutions to acknowledge and address student persistence and student well-being in an integrative way and for traditionally academically focused student retention models to orientate to incorporate student well-being.

Keywords: First-year, Persistence, Transition, Well-being.

Introduction

In Ireland, one in six first-year students withdraw from their academic programme corresponding to approximately 6,000 students annually (Higher Education Authority, 2016a). Attrition among first year college students is of concern internationally (Tinto, 2006). This is a critical policy priority due to the potential negative individual and societal implications (Department for Education and Skills, 2011). During the last three decades in Ireland, and internationally there has been a marked increase in the number of students accessing third level education (Tinto, 2006; Higher Education Authority, 2015), resulting in a more diverse cohort of first year students with a wider variety of needs. This phenomenon takes place in a wider context of changing demographics of socioeconomic profile of students attending higher education. This change highlights the need for an improved and more comprehensive understanding of the factors impacting how students transition to college, and how they can better prepare for this new life phase.

Student persistence within academic programmes and successful graduation from third level institutions has a significant effect on students' lives, both in terms of immediate and extended benefits including greater employment prospects, improved quality of life and health and greater societal engagement (Baum & Payea, 2013). There are also considerable benefits to third level institutions and to society including university rankings, societal and labour market participation, and long-term health services use (Baum & Payea, 2013; Giusta, et al., 2017). The literature identifies first year in college as the most critical year for students to prepare themselves for a positive student experience (Tinto, 1993; Pascarella & Terenzini, 1991), thus first year is a critical timeframe for offering supports towards persistence and graduation (Tinto, 2006).

The landmark theory of college student persistence that shapes our understanding of this new life stage is Vincent Tinto's institutional departure model (1975, 1993, 2006). This model describes the process underpinning student transition to college and the interactions between factors that result in a student's decision to persist or leave. It theorises that students have pre-entry attributes, such as pre-college schooling and family educational background, and that these antecedent factors have a significant impact on the status of students' goal and institutional commitments before entering college (Tinto, 1993). A student's goal commitment refers to their commitment towards achieving the academic award for which they are studying, while institutional commitment refers to the student's aspiration to achieve

their education in a specific college (Tinto, 1993). When students enter college, further factors related to the academic and social interactions contribute to their integration with campus life. These are part of a process that unfolds during the college experience to strengthen or weaken the initial commitment, leading to a decision to persist or leave (Tinto, 2006). Tinto's work contributed a comprehensive model of the student transition to college, and the factors described reflect those included in other models in the area (Bean & Eaton, 2000). Nevertheless, both Tinto's model and others do not include student well-being factors within the process of forming and further developing the process of student persistence within college.

This study sets out with Tinto's model as a basis for identifying and understanding factors predictive of student persistence, with measures of student commitment as the dependent variables of interest. This study contributes to the development of Tinto's model by including a comprehensive profile of well-being variables to assess whether these factors contribute to student commitment during the initial semester one transition to college. Many of the survey questions utilised in this current study were adopted from the "MAP-Works" survey tool, which is based on reliable and valid measures of the academic and social constructs of the Tinto model (MAP-Works™, 2014). The US "MAP-Works" research-based student retention and success program focuses on data collection on the first-year experience towards early intervention actions based on making student achievement possible (MAP-Works™, 2014).

First-year Student Well-being

Student well-being is a public health concern. For example, college students experience a high prevalence of mental health problems (Auerbach et al., 2016). Due to such trends, student well-being must be included as a critical factor to comprehensively understand the student experience. The first-year student transition to college is highlighted as a transition with the potential to negatively affect student well-being (Cutrona 1982; Hicks & Heastie, 2008; Ruthig et al., 2011). Research indicates that mental health problems are prevalent among first year students (McLafferty et al., 2017) with many experiencing anxiety during this time (Bewick et al., 2010). For instance, in Ireland, 14% of young adults studying in higher education aged between 18 to 25 years experience severe to very severe anxiety (Dooley & Fitzgerald, 2012). However, health behaviours such as physical activity have been shown to be a protective factor for mental and physical health (Trochel et al., 2010) for first year students (Bray & Born, 2004). Student risk behaviours too are a cause for concern for

third level institutions internationally. With many students gaining independence for the first time when they start college, it can often be a time for experimentation (Ruthig et al., 2011), manifested in greater engagement with risk behaviours such as substance use (Saules et al., 2004), unsafe sexual practices (Dolphin et al., 2017), and binge drinking (Davoren et al., 2015). While there is an extensive literature on threats to well-being among college students, these findings are not commonly linked to studies of the student experience that address successful transition to college, and as a result the relationship between well-being and student commitment requires further exploration.

The link between student well-being and academic achievement

There is a large amount of research linking student well-being to student academic achievement (Ahrberg et al., 2012; Auerbach et al., 2016; DeBerard et al., 2004; Gaultney, 2016; Gilbert & Weaver, 2010; McLafferty et al., 2017; Ruthig et al., 2011). Much of the research indicates associations between student health and academic success (*ibid*). Many studies examine the effect of one or more aspect of student well-being on student Grade Point Average (GPA); for example, the negative effect of sleep problems (Ahrberg et al., 2012; Gilbert & Weaver, 2010), mental health problems (Auerbach et al., 2016; McLafferty et al., 2017), and alcohol use (Porter & Pryor, 2007), however during the first year student transition to college in most cases students will not have completed exams and therefore there will be no exam results to consider as a marker of success at this early stage. Viewing student academic achievement only in terms of grade point average is arguably a narrow perspective, as GPA represents one aspect of a more complex pathway in which numerous factors impact student persistence and therefore retention (Bean & Eaton, 2002; Tinto, 1993). In this context, the Tinto model provides an appropriate model of the first-year experiences, as it is sufficiently broad to consider a more ‘whole student’ perspective of student persistence. The Tinto model acknowledges the relevance of a student GPA within the academic interactions construct of the model, however this is one aspect of a pathway of interactions that lead to student strengthening or weakening of commitment. Consequently, the Tinto model can be said to offer a relatively comprehensive analysis of the process of transition to college, but one which still requires the additional consideration of student well-being within the pathway of interactions. This study seeks to address this gap, initially as a cross-sectional snapshot of the student experience.

A literature search undertaken for this study found one empirical investigation of the comprehensive set of factors predictive of persistence (Tinto, 1993) that included a broad range of well-being factors (Napoli & Wortman, 1998) with freshman students. Napoli and Wortman's study aimed to further expand the Tinto Model by including the mediational influences of a set of psychosocial factors (social support, self-esteem, social competence, psychological well-being) with the constructs of the Tinto Model. This study was the first to do so comprehensively and the psychosocial measures were shown to have a direct and indirect effect on college persistence, defined in this study as enrolment in second year at college (Napoli & Wortman, 1998). However, to date "much of the research on why students are not successful, and leave does not succinctly provide classifying reasons, and fewer still investigate health as a factor" (Grizzle & McNeill, 2007 p. 20), and this is still true today.

This current study is another step towards exploring student persistence and well-being factors in a combined way during the transition to college with first-year students. The objective is to contribute to a more comprehensive understanding of those variables that affect student commitment, and, in turn, college persistence.

Aims of the present study

Building on the limited evidence to date of including measures of well-being in a model of student persistence, this study of the early first-year student transition to college hypothesises that student well-being is significantly associated with student commitment during the transition to college, and therefore has the potential to effect persistence. The identification of key persistence and well-being correlates of a positive student experience during first year at college is important for developing student education, preparedness, and orientation intervention programs, thus helping students to transition to college successfully.

Recognising the link between student academic achievement and student well-being, this study aims to:

- Examine the effect of previously theorised student individual, academic and social variables with the addition of well-being variables on first year student commitment during the first semester transition to college. Two models will be presented, one for general commitment and one for institutional commitment.

Methods

A cross-sectional web-based survey was conducted in a university in Ireland. Ethical approval was provided by the Research Ethics Committee. All first-year students (n=5,517) were invited to participate using a list of student emails obtained from the University Register in semester 1, 2016. Inclusion criteria of participants were; first year full-time students aged between 17 and 22 years. The sample was composed of 574 first year students, with 341 females (66.6%) and 170 males (33.3%). First generation student status was represented by 27% of the sample.

Survey Development

The survey tool was designed to map on to the conceptual elements of the student integration model (Tinto, 1993), keeping in mind the length of the survey tool for participants to complete. An extensive literature search was completed, and measures were selected on criteria of appropriateness, frequency of use within the literature, reliability, and validity. Ultimately the survey included pre-entry attributes, academic experiences, social experiences, and commitment mapping onto Tinto's model. In addition to this the survey included well-being variables, including health outcomes, health behaviors and risk behaviours. Many of the survey items were composed of numerous scale items. All negatively worded items were reverse coded before total scores were computed for each scale. Scale reliability was assessed to determine each scale's internal consistency using Cronbach's alpha (α) coefficient. The survey instrument was piloted with a convenience sample of five students. Based on the feedback from these students, any ambiguous questions were rephrased, and some minor edits were made to the format of the survey.

Pre-entry attribute variables in the survey

First generation status was determined by creating a variable combining the responses for these questions; 'Which best describes your father/male guardians' highest level of education?' with response options; 'Post-primary Junior Certificate, Post-primary Leaving Certificate, Some College, College diploma, College degree or higher' (MAP-Works™, 2014). The same question was then asked with father replaced by mother/female guardian.

Socio-economic status was measured using the Social Grade Classification Tool (IPSOS, 2009). Participants were asked to 'Think of the primary earner in your family growing up –

which of the following best describes their employment/position?’ with six answer options, e.g., ‘High managerial, administrative or professional’.

A question was constructed to assess pre-college schooling relevant to the Irish context. Participants scored themselves between 0 and 600 points, with 600 being the highest available score in the State examination system. A continuous question was recoded into a categorical question with categories of Leaving Certificate points; 0-300 points, 301-400 points, 401-500 points and 501-600 points. All other variables are explained in Table 6.

Table 6

Summary of Academic, Social, Commitment and Well-being Measures, along with Cronbach's α as a Measure of Internal Consistency.

Construct	Measure	Example question	Cronbach's α
Pre-entry Attributes	Brief self-control scale (Morean et al., 2014).	Self-discipline (‘I am good at resisting temptation’)	$\alpha = .593$
	Brief self-control scale (Morean et al., 2014).	Impulse-control (‘I do certain things that are bad for me if they are fun’)	$\alpha = .711$
Academic experiences	Academic environment (Yonghong, 2016)	‘My academic programme is of good quality’	$\alpha = .695$
	Academic behaviours (MAP-Works™, 2014)	‘To what degree are you the type of person who takes good notes in class’	$\alpha = .735$
	Assessment of academic course (Careers Services)	‘Do you believe your academic programme is right for you?’	n/a
	Academic self-efficacy (MAP-Works™, 2014)	‘To what degree are you certain you can do well on problems and tasks assigned to your course?’	$\alpha = .836$
Social experiences	Extra-curricular activities	‘During term time, to what degree do you participate in a Student Society?’	$\alpha = .695$
	Peer connections (MAP-Works™, 2014)	‘On campus to what degree are you connecting with people who share a common interest with you?’	$\alpha = .864$
Health outcomes	Self-reported general health (Currie et al., 2010)	‘Would you say your health is excellent, very good, good, fair or poor?’	n/a
	DASS-21 Depression (Lovibond & Lovibond, 1995)	‘I felt that I had nothing to look forward to’	$\alpha = .904$
Risk behaviors	Cannabis use (devised by the authors)	‘On how many occasions, if any have you had cannabis in the past 12 months?’	n/a
	Hazardous drinking AUDIT-C (WHO)	‘In the past year how often did you typically get drunk?’	$\alpha = .805$
Health behaviors	Physical activity (Currie et al., 2010)	‘Over the past 7 days, on how many days were you physically active for at least 30 minutes per day?’	n/a

Commitment	Student adaptation to college questionnaire (Baker & Siryk, 1989)	General commitment; “I am pleased about my decision to attend college in general”	$\alpha = .805$
	Student adaptation to college questionnaire (Baker & Siryk, 1989)	Institutional commitment; “I am pleased about my decision to attend NUI Galway in particular”,	$\alpha = .824$

Statistical Model

The two response variables, General Commitment and Institutional Commitment, are ordinal in nature so an ordinal logistic model analysis was utilised. Although all variables are discrete, many of them have numerous items and may be considered continuous without much loss of information.

The model for General Commitment is described below. The other model is identical, with Institutional Commitment replacing General Commitment. For convenience 1,2,3, and 4 are used to denote the four levels (thresholds) of General Commitment based on the values reported: 1 refers to “Very low”, 2 is “Low”, 3 is “Moderate” and 4 is “High”.

An ordinal logistic model was used to model the natural logarithm (often called the logit) of the odds ratios as a function of the input variables. The odds ratios are defined as

$$\theta_j = \frac{\text{Probability}(\text{SatisfactionGeneral value will be } \leq j)}{\text{Probability}(\text{SatisfactionGeneral value will be } > j)}, j= 1, 2, 3$$

In simple terms, the odds θ_j is the probability of a value being in class j or lower divided by the chance of being a class higher than j . For statistical reasons, it is more convenient to model the natural logarithm, $\ln(\theta_j)$.

The model then typically represents $\ln(\theta_j)$, for each j , as a (linear)function that includes that includes an intercept plus the effects of the input variables, plus a random error term. Statistical analyses were conducted with IBM SPSS 24.0 (IBM Corp, 2013) and Minitab 17 Statistical Software (2010).

Results

Overall student commitment was high among participants, with 74.8% of students reporting high General Commitment and 66.8% reporting high Institutional Commitment. Less than 10% of students overall reported “very low” or “low” commitment for both response variables, as seen in Table 7.

Table 7

Percentage Frequency Distribution for Each of General Commitment and Institutional

Commitment

Construct	Very low %	Low %	Moderate %	High %
General Commitment	4.2	4.2	17.0	74.8
Institutional Commitment	3.1	6.1	23.9	66.8

Statistical Results for General Commitment Model

The p-value for the model fit was significant (< 0.005), suggesting that some of the predictors were useful in modelling General Commitment. The R^2 value, as measured by the value of the Nagelkerke's pseudo R^2 statistic was 0.394, which may be considered acceptably large (Hinkle *et al* 2003), so that the model's goodness-of-fit is acceptable. The test of parallel lines showed no statistical evidence of a violation of the proportional hazard assumption ($p = 0.123$). Parameter estimates for General Commitment are shown in Table 8.

Table 8*Parameter Estimates for General Commitment*

Demographics	Estimate	Std. Error	Wald	Odds Ratio	p-value
Gender 1 (male)	-.513	.284	3.257	0.59870	0.71
Gender 2 (female) ^a	0				
Age	-.074	.154	.229	0.92867	.633
Pre-entry attributes					
First Generation 1 (Yes)	-.479	.314	2.325	0.61940	.127
First Generation 2 (No) ^a	0				
Socioeconomic Status 1	.304	.702	.187	1.35527	.665
Socioeconomic Status 2	.389	.706	.304	1.47550	.582
Socioeconomic Status 3	1.236	.754	2.667	3.44182	.101
Socioeconomic Status 4	.916	.666	1.888	2.49927	.169
Socioeconomic Status 5	1.755	.750	5.474	5.78345	.019*
Socioeconomic Status 6 ^a	0				
Leaving Certificate Points 1	.672	1.081	.386	1.95815	.534
Leaving Certificate Points 2	-.546	.360	2.302	0.57926	.129
Leaving Certificate Points 3	-.295	.299	.977	0.74453	.323
Leaving Certificate Points 4 ^a	0				
Impulse Control	-.075	.057	1.756	0.92774	.185
Self-Discipline	0.011	.065	.029	1.01106	.865
Academic Experiences					
Right Course 1 (Yes)	1.346	.283	22.622	3.84203	.000**
Right Course 2 (No) ^a	0				
Academic Environment	.133	.043	9.710	1.14225	.002*
Academic Behaviours	.011	.023	.219	1.01106	.640
Academic Self-Efficacy	.089	.044	4.067	1.09308	.044*
Social experiences					
Peer Connections	-.049	.036	1.886	0.95218	.170
Sports Participation 1	.230	.372	.382	1.25860	.537
Sports Participation 2	.370	.505	.537	1.44773	.464

Sports Participation 3	.533	.429	1.545	1.70404	.214
Sports Participation 4 ^a	0				
Society Participation 1	.065	.469	.019	1.06716	.890
Society Participation 2	.134	.521	.066	1.14339	.797
Society Participation 3	-.008	.491	.000	0.99203	.988
Society Participation 4 ^a	0				
<hr/>					
Well-being					
<hr/>					
Depression	-.102	.028	13.203	0.90303	.000**
Physical Activity 1 ^b	-.633	.298	4.531	0.53100	.033*
Physical Activity 2 ^a	0				
Self-Rated Health 1	1.757	1.049	2.803	5.79503	0.094
Self-Rated Health 2	1.420	.942	2.274	4.13712	.132
Self-Rated Health 3	1.753	.920	3.633	5.77189	.057
Self-Rated Health 4	1.708	.930	3.377	5.51791	.066
Self-Rated Health 5 ^a	0				
Cannabis Use 1	.299	.423	.498	1.34851	.480
Cannabis Use 2	.433	.446	.944	1.54188	.331
Cannabis Use 3	.062	.685	.008	1.06396	.927
Cannabis Use 4 ^a	0				
Hazardous drinking	.020	.057	.130	1.02020	.718
<hr/>					

The interpretation of the odds for one significant continuous variable (Depression) and one significant factor variable (Right Course) is given as a guide to interpret the data. All other odds are interpreted in the same way.

For General Commitment, the odds ratio for Depression is 0.90303. Meaning it is estimated that for each one-unit increase in Depression, the odds of the student moving from their current General Commitment level to a higher level is only 0.090303 times the probability of the student staying at the same level, or moving to a lower Commitment level, when all other variables are held constant.

For the response General Commitment, the odds ratio being on the right academic course relative to being unsure/not on the right academic course is 3.84203, when all other variables are held constant. The associated p-value is < 0.005 , so there is strong evidence that a student

who is content with his/her academic course has nearly a 4 times higher probability of moving to a higher level of Commitment compared to a student who is not on the right academic course.

Institutional Commitment Model

The chi-squared test of model fit had a low value (<0.005), indicating that some of the predictors are informative in modelling Institutional Commitment. The p-value for goodness-of-fit of the model, measured by the value of the Nagelkerke's pseudo R^2 statistic, was 0.378, which may be considered reasonably large pointing to a good fit of this model to the data.

When all potential input variables were included in the ordinal regression model for Institutional Commitment, the test of parallel lines indicated that this assumption might not hold. The low p-value associated with the test (which leads to rejection of this proportional odds assumption) generally happens when there are a large number of input variables in the model (Brant, 1990), or as noted by (O'Connell, 2006) in the presence of continuous input variables, or where the sample size is large (Clogg & Shihadeh, 1994). To alleviate the possibility of a violation of this assumption further tests were carried out based on (a) ordinal logistic analyses of the response variable on each input variable separately and (b) a number of binary logistic model fits to various dichotomised groupings of categories of the response variable. These procedures, which showed large discrepancies in various relevant log odds ratios did not lead to a confident result in the parallel lines assumption holding. Accordingly, a model that allowed for different slopes associated with the effects of some of the input variables was considered. However, it was observed that at least one non-significant input variable could be dropped from the ordinal regression model, and its exclusion provided a result with no evidence of violation against the parallel lines hypothesis.

By conducting a correlation analysis on all input variables, it was observed that the variable Academic self-efficacy was highly correlated with all other scale input variables (the highest p-value was 0.032, and most were <0.005), and highly correlated with all categorical input variables except Cannabis use and First-generation status. Due to this, multicollinearity can cause issues with the analysis, and the decision was made to drop this variable.

When the ordinal regression analysis was conducted on Institutional Commitment using all inputs except Academic self-efficacy four variables emerged as significant. These variables and their associated p-values are: Academic Environment (<0.005), Peer Connections (0.021), Depression (0.001) and Right Course (<0.005). The model fit had a p-value <0.005 ,

the Nagelkerke pseudo R^2 value was 0.376, and the p-value for the test of parallel lines was non-significant: 0.138. Finally, in addition to dropping Academic self-efficacy, when First-generation status was excluded the same four significant variables emerged, and the same occurred when Sports Participation was excluded, again the same four significant predictors emerged.

Discussion

This study investigated the implications of including student well-being within a model of student persistence at the early student transition to college in a sample of first year students in Ireland. The study hypothesised that student well-being is significantly associated with student commitment during the transition to college, and therefore has the potential to affect persistence. This hypothesis was supported, with several well-being variables contributing significantly in the two analysis models. In this current study students overall feel high commitment to their college and to their studies in general during the initial transition to college, with non-significant variation between males and females. The most prominent predictors of student commitment included the feeling of being enrolled in the right course, academic self-efficacy, perceptions of the academic environment, depression scores, physical activity, and self-rated health. These variables are highlighted as potentially useful for education institutions to monitor as part of a holistic perspective on the early transition to college and to target early intervention supports.

Pre-entry attributes

Like previous research, student pre-entry student attributes, specifically socioeconomic status (Tinto, 1993), emerged as significant predictors of student general commitment to college. However, this was the only significant pre-entry attribute in this study. One reason for this may be due to this current study focusing on the early transition to college. The literature states that student persistence is a longitudinal pathway of interactions (Tinto, 1993), so it is possible for this subset of variables to have a greater effect later in the first-year transition.

Social Variables

Peer connections significantly affected student institutional commitment during the early transition to college, as suggested by the findings of previous research (MAP-Works™, 2014). This points to the value of having friends and not feeling alone during this early

transition to college as being significant to the likelihood of persistence. However, in this current study the participation in extracurricular activities such as societies and clubs on campus were not significant. These findings were contradictory in some ways as joining clubs and societies on campus should in theory offer a means by which students make new friends and gain social interactions. This possibly points to the semester one timing of the survey and a possible need for societies and clubs specifically for first year students to make participation less daunting and more successful (Foubert & Grainger, 2006). Due the level of investment from education institutions into societies and clubs further research is needed to explore the relationship to student commitment for some students.

Academic Variables

The perception of being registered on the right course was the most powerful predictor of student general and institutional commitment at this early stage of transition. This finding highlights the importance of preparations within post-primary schools (Cabrera et al., 2013) as a key to successful student transition. This finding points to the importance of supportive, developmental connections between higher education institutions and schools, to support course identification, preparing for college, and knowing what to expect (Cabrera et al., 2013). Coupled with these, course transfer options during first year at college could be more accessible, working with first year students to ensure they are studying on a programme they believe is right for them. In America, freshman students are allowed much more flexibility to select their major course of study allowing more exploration with minimal consequences to retention and graduation (Education Advisory Board, 2016). For Irish colleges, this calls for a substantial change in the first-year student processes and investment in guidance counsellors to create more transfer options. Perceptions of the academic environment emerged as a significant predictor of enhanced student general and intuitional commitment like previous research (Tinto, 1993) establishing the students' enjoyment of the atmosphere of their course, smaller class sizes, and working with their lecturers as important and an area for educational institution monitoring and investment. Student academic self-efficacy emerged as a significant predictor of general commitment, highlighting the students' own perspective of their academic abilities as important. This too is linked with student preparedness for college and should be supported in partnership with school outreach activities.

Well-being Variables

In relation to the suite of well-being variables included in this current study, depression emerged as the most significant predictor of student general and institutional commitment. In line with the literature, student mental health has been identified as an important aspect of college student retention (Auerbach et al., 2016), however Auerbach's research examined mental health of students throughout the college years without focusing specifically on student mental health during the transition to college, rather than the potential impact of mental health on early student commitment within the framework of the Tinto model of transition to college. This finding highlights the role of third level education institutions in the protection and promotion of youth mental health (Department of Health, 2017). Physical activity emerged as a significant predictor of general commitment confirming education institutions would benefit from incorporating physical activity into the student's environment. One possible solution could be focused on making active commuting to campus the easier option for students.

Student self-rated health emerged as a significant predictor of general commitment. This refers to the students' own perception of their health, rating it from poor to excellent. Students who reported "good" self-rated health were more committed than those who reported negative self-rated health. This finding highlights the importance of how students feel within the education institution environment, and if students see, hear and feel a focus within college campus on student well-being this could positively affect their perceived health, and thus their commitment to persist. The health promoting universities approach to creating a supportive environment (Tsouros et al., 1998) in line with the directives of the Ottawa Charter provides a framework to comprehensively address this finding.

Overall, this study found student socioeconomic status, academic, social and well-being variables as significant predictors of student commitment during the semester one transition to college, thus supporting the hypothesis that Tinto's Model would be more comprehensive with the inclusion of student well-being variables in predicting and monitoring student likelihood to persist. This finding points to a need for a broader view of student persistence beyond the academic and social college experience to comprehensively address student withdrawal during first year.

Implications

To incorporate this information into action there are three frameworks to consider. Firstly, acknowledgement of The Ottawa Charter (1986), in recognising education as a prerequisite for health (WHO, 1986) and the importance of enabling each person to have control over their lives and strive to make health promoting and life enhancing decisions in a supportive environment (WHO, 1986). The second is campus ecology which focuses on the various mutually interdependent relationships among students, their environments, and behaviours with a specific emphasis of how the ecology of the campus can support or hinder the goals of student growth and development (Strange & Banning, 2001). In addition to this, the social ecological model for health promotion interventions (McLeroy et al., 1988) is an appropriate fit. This focuses on both population-level and individual-level determinants of health and interventions within an ecological perspective of the campus environment (McLeroy et al., 1988). This is in line with the Health Promoting Universities Approach (Tsouros et al., 1998), which too aims to create a supportive environment for students to make health enhancing decisions (Tsouros et al., 1998). Campus ecology with the addition of the perspective of the social ecological model for health promotion and the Health Promoting Universities Approach, provides a multifaceted view of the connections among health, learning, productivity, and campus structure. The coupling of these perspectives within the campus environment has the potential to provide the most benefit due to the broader and comprehensive viewpoint they offer in line with the findings of this current study, student well-being as an integral part of each student's pathway to graduation.

Conclusion

This study expands on existing research in the presentation of the factors that affect first year student commitment and thus persistence. It presents the relevance of student well-being during the transition to college, along with the factors of academic and social interactions already acknowledged by researchers who have used Tinto's Model of Institutional Departure. This study suggests an expansion of the previous explanations of the factors that affect student persistence, and ultimately retention to include well-being as a much more integral part of understanding the process students undergo during the transition to college and how to best support them towards achieving in education.

In addition to this, and due to the more diverse students entering college nationally and internationally it is important that college students are actively involved in the process of exploring student persistence and withdrawal towards the identification and implementation of supports and solutions (Sadowski et al., 2018). Further research is needed in this area to address the diversity of the support needs. The identification of key persistence and well-being correlates of a positive student experience during first year at college is important for developing student preparedness and early intervention programmes, thus helping students to transition to college successfully during the critical first year towards education attainment. The findings presented here have important practice and policy implications nationally and internationally.

Limitations

This study was a self-selection online survey study so is unlikely to fit the criteria for a representative sample of first-year college students, with further research required to investigate the generalisability of the model developed to explain student commitment. This study is cross-sectional in design so associations between commitment and academic, social and well-being variables can be observed to a statistically significant degree, but causality cannot of course be concluded. In terms of measuring student commitment there is no fixed definition or agreement of the method of measurement within the literature, but the authors strived to use measures representative of the constructs of commitment and to utilise a measure well represented in the literature. This study focused on one college so further research is needed with a larger more geographically varied sample to gain greater understanding of the issue. This study uses student commitment as the proxy measure of risk of non-persistence, in line with the literature identifying student commitment as a critical predictor of the likelihood that a student will persist, based on their college experiences (MAP-Works™, 2014; Tinto, 2006).

Chapter 5 Peer-reviewed Paper 2

Exploring the influence of student well-being on first-year student commitment and integration at college.

Submitted to *International Journal of Environmental Research and Public Health*, Special Issue “*University Students Health and Academic Achievement*” (May 2021).

Natasha Daniels¹, Jerome Sheahan², Audrey Thomas³, Padraig MacNeela¹.

School of Psychology, National University of Ireland, Galway, Ireland¹.

School of Mathematics, Statistics and Applied Mathematics, National University of Ireland, Galway, Ireland².

Immediate Office of the Vice Chancellor for Undergraduate Education, University of California, Berkeley³.

Abstract

This study investigated the impact of early first-year student well-being on student commitment and integration at the end of first year at college. Examining the first-year student transition to college, this study hypothesises that student well-being early in first year is significantly associated with student commitment and student integration at the end of the first year of college, and therefore has the potential to affect persistence. Longitudinal quantitative research was conducted at two time points with first year students. A sample of 187 first-year student completed both surveys. This study highlights the connection between student well-being and student commitment and integration during the transition to college, with student depression, self-rated health and cannabis use emerging as significant predictors. The results support the research hypothesis pointing to the importance of education institutions acknowledging and addressing student persistence and well-being in an integrative way towards the student achievement in education.

Keywords: persistence, first-year, student, well-being.

Introduction

Student persistence has been defined as the desire of a student to earn a degree from a higher education institution (Berger et al., 2012). Tinto (2017) refers to student persistence as a quality that allows a student to continue towards their goal even in the face of challenges, linking it closely with motivation to continue. Students are engaged in an active process of persisting (Tinto, 2017); thus, it is important for higher education institutions and international policy makers to better understand first-year student persistence and the important factors with the potential to impact it. This current research offers a change in perspective, moving away from the institutional orientation of student retention to explore the first-year experience with the student-oriented aim of exploring the role of personal well-being as a factor with the potential to impact student persistence. The aim of this is to add to the existing research on the transition from post-primary school to college internationally, a specialised field in the social sciences and psychology that has not assessed student well-being sufficiently to date.

In relation to exploring the first-year student experience from a student persistence perspective there are two important contextual issues to understand. Firstly, first-year student persistence and progression within higher education institutions is of international concern. In Ireland, the National Strategy for Higher Education emphasises the importance of a positive first-year student experience to achieving the goals of higher education, and, by extension, the personal and system-wide implication that arises if first-year student challenges are not addressed (Department of Education and Skills, 2011). First-year student withdrawal is estimated at 18%, corresponding to approximately 6,000 students annually in Ireland (Higher Education Authority, 2016a), which is in line with international first-year student attrition concerns. The second contextual issue is that student well-being during college years is a serious public health concern, a subject which has demanded much attention internationally due to its potentially detrimental and enduring consequences (Auerbach et al., 2016). In particular, the first-year transition to college is recognised as a challenging time for student well-being (Ruthig et al., 2011).

There is a wealth of research exploring the student experience during the transition to college (Ben-Avie & Durrow, 2019; Fiori & Consedine, 2013; Ketonen et al., 2016; Woosley & Miller, 2009; Woosley & Shepler, 2011). In addition to this there is a body of literature exploring retention and persistence factors with first year students (Ketonen et al., 2016;

Thomas, 2012; Woosley & Miller, 2009; Woosley & Shepler, 2011), however these are primarily derived from an educational or institutional perspective and for the most part fail to link with student well-being. Over past decades many studies have examined the potential impact of the transition to college on first year student well-being (Amirkhan & Kofman, 2018; Auerbach et al., 2018; Conley et al., 2013; Davoren et al., 2015; De Coninck et al., 2019; Gaultney, 2016; Hicks & Heastie, 2008; Stewart-Brown et al., 2000; Zanden et al., 2019) with well-being incorporating wide ranging factors. This literature concludes that the transition to college has the potential to impact first-year student mental health (Auerbach et al., 2018), subjective well-being (De Coninck et al., 2019) social-emotional well-being (Zanden et al., 2019), increased stress levels (Amirkhan & Kofman, 2018; Hicks & Heastie, 2008) and participation in risk behaviours (Davoren et al., 2015). First-year college student mental health is a prominent concern, with one in three students struggling with mental health issues (Auerbach et al., 2018). Recent research reported that first-year student subjective well-being typically decreases from the beginning to the end of the first semester at college (De Coninck et al., 2019). Thus, identifying first-year student well-being as an important public health priority.

In addition, research has shown that health related variables are often reported as factors that affect student academic performance towards degree completion (Auerbach et al., 2018; Gaultney, 2016; Krumrei-Mancusom et al., 2013; Ruthig et al., 2011; Serrano & Andreu, 2016), pointing to a link between student well-being and education attainment. Thus well-being, considered in many forms within the literature has the potential to impact education attainment providing evidence of the rationale for its inclusion towards understanding and supporting first-year student persistence. However, much of this research refers to Grade Point Average or exam results as the academic measure of success in line with a student retention focus. Although this research is valuable, using Grade Point Average as the indicator of student success offers a limited understanding of the student's experience, and refers only to an institutional measure of success. Literature is scarce examining the relationship between student well-being and student-centred, persistence process focused factors such as; commitment and integration (Tinto, 1993). Thus, this research aims to address this gap in the literature.

Given the number of young people internationally who transition from post-primary school to college annually it is imperative that the student experience during first year of college be better understood. Student well-being and student persistence during the first year in college

are both critically important to students, education institutions, and society more generally; therefore, it is important to consider these in a coupled way towards supporting students to transition to college successfully, maintain well-being, personally develop, and achieve their educational goals. In addition to this, with first year identified as a critical year for adjustment to college (Tinto, 1993), it is essential for higher education institutions to develop a set of early predictors of student integration and commitment, assessing early warning signs of student difficulty to enable opportunities for early intervention. An example of this is available through the U.S. “MAP-Works” research-based student retention and success program, which collects data on the first-year experience to target early intervention actions designed to support student achievement (MAP-Works™, 2014). In this paper we argue that the inclusion of a broader set of variables inclusive of well-being is appropriate.

Towards addressing this and the outlined gaps in the literature, this current study considers Vincent Tinto’s Institutional Departure Model (Tinto, 1993) as a basis for understanding factors predictive of student persistence, acknowledging his explanation of the importance of each student’s commitment and integration once enrolled within the education institution, as integral to the likelihood of student persistence towards completion (Tinto, 1993). Thus, this current study aims to explore the impact of a set of well-being variables during the early first-year transition to college on three dependent variables: student general commitment, student institutional commitment and student academic and social integration. Building on the limited inclusion of measures of well-being in a model of student persistence and utilising longitudinal data over the course of the first-year experience, this study hypothesises that student well-being early in the first year of college is significantly associated with student commitment and student integration at the end of the first year of college, and therefore has the potential to affect persistence. This study aims to explore:

1. If student institutional and general commitment change from early first year to the end of first year in college.
2. If student well-being during the early transition to college is associated with student institutional commitment, general commitment and academic and social integration at the end of first year at college.

Methodology

Design

Longitudinal quantitative research was conducted at two time points with first year students. In the academic year 2016/2017 two web-based surveys were conducted in a university in Ireland, the Time 1 opened at week six of first year and the Time 2 survey opened at week twenty. Both surveys remained open for approximately a three-week period. Ethical approval was provided by the institutional Research Ethics Committee. In October 2016, all first-year students (N=5,517) were invited to participate using a list of student emails obtained from the University Register. In March 2017 all first-year student who completed the first survey were invited to participate in the second survey (n=492). Inclusion criteria of participants were first year full-time students aged between 17 and 22 years. Exclusion criteria included international students and mature students due to the differing first-year college experience they may have. Each survey took approximately 20 minutes to complete.

Survey Development

The survey tools were designed to collect student well-being data as the independent variables. In addition to this, three dependent variables were included that map on to the conceptual predictor elements of the student integration model (Tinto, 2006). An extensive literature search was completed, and measures were selected on criteria of appropriateness, frequency of use within the literature, reliability, and validity. Many of the survey measures were composed of numerous scale items. Scale reliability was assessed to determine each scale's internal consistency using Cronbach's alpha (α) coefficient. The survey instruments were piloted with a convenience sample of five students. Based on the feedback from these students, any ambiguous questions were rephrased, and some minor edits were made to the format of the survey. See Table 9 for variable information.

Table 9

Summary of Commitment, Integration and Well-being Measures, With Cronbach's α as a Measure of Internal Consistency.

Construct	Measure	Example question	Cronbach's α
Health outcomes	Self-reported general health (Currie et al., 2010)	'Would you say your health is excellent, very good, good, fair or poor?'	n/a
	DASS-21 Depression (Lovibond & Lovibond, 1995)	'I felt that I had nothing to look forward to'	$\alpha = .904$
Risk behaviours	Cannabis use (Devised by the authors)	'On how many occasions, if any have you had cannabis in the past 12 months?'	n/a
	Hazardous drinking AUDIT-C (WHO)	'In the past year how often did you typically get drunk?'	$\alpha = .805$
Health behaviours	Physical activity (Currie et al., 2010)	"Over the past 7 days, on how many days were you physically active for at least 30 minutes per day?"	n/a
Commitment	Student adaptation to college questionnaire (Baker & Siryk, 1989)	General; "I am pleased about my decision to attend college in general"	$\alpha = .805$
	Student adaptation to college questionnaire (Baker & Siryk, 1989)	Institutional; "I am pleased about my decision to attend this institution in particular"	$\alpha = .824$
Social and academic integration	"College Senior Survey" (Higher Education Research Institute, 2016)	"I feel I am a member of this college"	$\alpha = .903$

Data analysis and Statistical Model

Associations between student well-being and the three dependent variables; general commitment, institutional commitment, and academic and social integration were tested. The input variables Depression, Anxiety, and Stress were highly significantly correlated ($p < 0.000$), so to avoid possible issues with multicollinearity, only Depression was used in the analysis.

The model for General Commitment is described below. The other two models are identical, except for Academic and Social Integration having three and not four levels (thresholds). For convenience 1,2,3, and 4 are used to denote the four levels of General Commitment based on the values reported: 1 refers to “Very low”, 2 is “Low”, 3 is “Moderate” and 4 is “High”. An ordinal logistic model was used to model the natural logarithm (often called the logit) of the odds ratios as a function of the input variables. The odds ratios are defined as:

$$\theta_j = \frac{\text{Probability}(\text{General Commitment value will be } \leq j)}{\text{Probability}(\text{General Commitment value will be } > j)}, j= 1, 2, 3.$$

In simple terms, the odds θ_j is simply the probability of a value being in class j or lower divided by the chance of being a class higher than j. For statistical reasons, it is more convenient to model the natural logarithm, $\ln(\theta_j)$. The model then typically represents $\ln(\theta_j)$, for each j, as a (linear) function that includes an intercept plus the effects of the input variables, plus a random error term. Ordinal Regression Analysis was conducted with IBM SPSS 25.0 (IBM Corp, 2017) and Minitab 17 Statistical Software (2010).

Results

Sample size, sample characteristics and demographics of dependent variables

A sample of 187 first-year student completed both surveys, aged between 18 and 22 years, with 137 females (73.3%) and 50 males (26.7%).

Table 10

Percentage Frequency Distribution for General Commitment, Institutional Commitment and Academic and Social Integration

Construct	Very low	Low	Moderate	High
General commitment	4.8	4.81	13.9	76.5
Institutional commitment	3.7	7.0	19.8	69.5
Construct	Low	Neutral	High	
Academic and social integration	9.6	21.4	69.0	

Statistical Results for the change in institutional and general commitment during first year at college

A paired-sample t-test was used to assess if a change occurred in General Commitment and/or Institutional Commitment over time, early first year (Time 1, abbreviated T1) and end of first year (Time 2, abbreviated T2) in college. No significant difference was observed in the sample means for General Commitment (t-value = 1.070 with df = 186; p-value = 0.286) and Institutional Commitment (t-value = 0.878, df = 186, p-value = 0.381). In addition, a more advanced analysis was also conducted and showed no significant time difference for General Commitment and Institutional Commitment over time, even if the effect of the various input variables were removed.

The following results detail the effect of the T1 independent well-being variables on each of the T2 dependent variables; T2 General Commitment, T2 Institutional Commitment and T2 Academic and Social Integration.

Statistical Results for General Commitment Model

The p-value for the model fit was significant (< 0.002), suggesting that at least some of the predictors were useful in modelling General Commitment. The R^2 value, as measured by the value of the Nagelkerke's pseudo R^2 statistic was 0.148, indicating that the fitted model's goodness-of-fit is reasonable and acceptable. There is no statistical evidence of a violation of the proportional hazard assumption ($p = 0.089$). Cannabis use was not included in this model as it showed no significance in either fitted model. Parameter estimates for the GLM model on General Commitment are shown in Table 11 below.

Table 11*Summary of Parameter Estimates for General Commitment*

Construct	Estimate B of β	Std. error	Wald	df	p-value	Odds ratio
Depression	-0.89	.036	6.139	1	.013*	1.093
AUDIT C	-0.39	.078	.250	1	.617	1.040
Physical activity = 1.00 ^b	.689	.398	2.988	1	.084	1.502
Physical activity = 2.00 ^a						
Self-rated health = 1.00	2.069	1.085	3.638	1	.056	0.126
Self-rated health = 2.00	1.207	.531	5.164	1	.023*	0.299
Self-rated health = 3.00	.671	.484	1.920	1	.166	0.511
Self-rated health = 4.00 ^a						

Note.

a Reference values.

b Physical activity 1 = achieved the recommended daily amount of exercise, Physical activity 2 = not achieving the recommended daily amount of exercise.

* $p < .05$. ** $p < .01$.

Depression at Time 1 emerged as a significant predictor of General Commitment at Time 2 ($p = 0.013$). Higher levels of self-rated health indicated greater general commitment, with “very good self-rated health” (level 2) and “fair/poor self-rated health” (level 4) emerging as significantly different ($p = 0.023$).

Statistical Results for Institutional Commitment Model

The p-value for the model fit was significant (< 0.003), suggesting that at least some of the predictors were useful in modelling Institutional Commitment. The Nagelkerke’s pseudo R^2 statistic was 0.89, suggesting that the fitted model’s goodness-of-fit is acceptable. The test of parallel lines showed no statistical evidence of a violation of the proportional hazard assumption ($p = 0.056$). Depression ($p = 0.018$) and cannabis use emerged as the significant variables ($p = 0.027$). Cannabis use at 1 to 9 times ever (level 2) has a significantly different

association than cannabis use at 10 times or more ever (level 3), with greater cannabis use predicting reduced institutional commitment.

Statistical Results for Academic and Social Integration Model

The p-value for the model fit was significant (< 0.002), suggesting that at least some of the predictors were useful in modelling General Commitment. The Nagelkerke's pseudo R^2 statistic was 0.131, suggesting that the fitted model's goodness-of-fit is reasonable and acceptable. The test of parallel lines showed no statistical evidence of a violation of the proportional hazard assumption ($p = 0.071$). Depression ($p = 0.022$) and self-rated health emerged as the significant variables ($p=0.044$), where "very good self-rated health" (level 2) is statistically different from "fair/poor self-rated health" (level 4), ($p = 0.004/2 = 0.002$) for the one-tailed test that level 2 leads to higher integration than level 4), thus providing statistical evidence that higher levels of self-rated health lead to greater integration.

Discussion

This study used a longitudinal design to investigate the impact of student well-being early in first year of college on student commitment and integration at the end of first year. The study found that well-being variables are significantly associated with student commitment and integration during the transition to college, and therefore have the potential to affect persistence. The analysis shows that students overall expressed high commitment at the beginning and end of first year, with no significant change during the year. The most prominent predictor of student commitment and integration was Depression, emerging as a significant predictor of all three dependent variables. In addition to this, student self-rated health and cannabis use were significant, albeit less consistently across the three models. These three variables are therefore identified as impactful well-being indicators of student commitment and integration for education institutions to monitor as part of a comprehensive suite of first-year student experience predictors during the transition to college.

These findings agree with previous research on the importance and potential impact of college student mental health (Auerbach et al., 2016; Auerbach et al., 2018). However, this current study for the first time highlights that student depression is a significant predictor of student commitment and integration during first year at college, going beyond linking student mental health with student retention measures such as GPA. In addition, student self-rated

health was previously linked with student success (De Coninck et al., 2019), however this current study extends on this by identifying it as a factor predicting student commitment during first year of college, highlighting the student perception of well-being as an important factor towards student persistence. Previous research suggests that college-going youths are at greater risk of drug use than other youths of comparable age (Johnston et al., 2010) with much of the information known about college student drug use from the USA and Canada (Johnston et al., 2010), and less research available in Ireland, the UK or Europe. Thus, the findings of this current study add to the available knowledge in Ireland and are novel, pointing to the potential importance of cannabis use as a predictor of student commitment and integration during the first year of college. In this study, the impact of well-being variables on established factors with the potential to impact persistence in the literature, commitment and integration (Tinto, 1993), adds to the evidence of the need for an integrated approach to student persistence and well-being within higher education policy and support provision. Thus, suggesting first-year students be supported through the creation of a higher education environment addressing both these internationally important student issues jointly, and with equal importance.

One suitable option towards achieving this is the coupling of the Institutional Departure Model (Tinto, 1993) and the Ecological Model for Health Promotion (McLeroy et al., 1988) when assessing and supporting the first-year student experience. Tinto's Institutional Departure Model theorises that commitment is the final indicator of student persistence (Tinto, 2006). Students enter with pre-determined personal attributes and commitments, these interact with student's social and academic experiences, leading to integration or lack of integration and in turn strengthen or weaken the student's commitment towards a decision to persist or withdraw (Tinto, 1993). This is a well-recognised and utilised model within the field; however, it is focused primarily on the academic institution and lacks the consideration of student well-being, an international issue of concern within the student population (Ruthig et al., 2011). The findings of this current study add to the evidence for considering student well-being as an additional construct within the Institutional Departure Model (Tinto, 2006), during the first-year transition to college.

In addition to this, when assessing and supporting the first-year student experience, the usefulness of the Ecological Model for Health Promotion (McLeroy et al., 1988) as a conceptual framework is clear. The Model provides a pathway for understanding student behaviours and what impacts these behaviours within the college environment by exploring

five interlinked factors. *Intrapersonal factors* refer to individual characteristics such as knowledge, attitudes and behaviours. *Interpersonal* is concerned with the formal and informal social networks and support systems, including family, work, and friendship. The importance of the *college institutional factors* inclusive of campus climate, common places, class schedules, and financial policies are included. This theory also highlights consideration of the wider *campus community* (e.g., built environment, neighbourhood associations, local businesses), and finally the impact of campus, local, national and global *public policy* to student well-being. This Framework focuses on individual and environmental causes of health behaviours and outcomes towards the identification of individual and population level supports and interventions (McLeroy et al., 1988). This approach to supporting students and their well-being can be adopted to supporting student persistence, suggesting these frameworks be used in conjunction to promote and support an optimal first-year student experience towards achievement in education and enhanced student well-being. Campus ecology provides a multifaceted view of the connections among health, learning, productivity, and campus structure (McLeroy et al., 1988), that enable institutions to consider and evaluate the impact of the campus environment on student well-being, and very readily on student persistence.

Conclusions

It is critically important that students obtain timely supports when they encounter academic or social difficulties early in college (Tinto, 2017); considering these findings, well-being must be prioritised too. To be effective, supports must be available and promoted early in a student's college life to prevent difficulties from undermining the student's commitment and motivation to persist (Tinto, 2017). This research provides evidence of the importance of addressing student well-being and other factors related to persistence in a holistic way. The results call for a broader, more comprehensive understanding of the first-year student experience and the creation of campus environments that enable optimal conditions for student well-being and persistence. The identification of key well-being correlates of student commitment and integration during first year at college is important for developing student education, preparedness, and orientation intervention programs, thus helping students transition to college successfully, minimising negative health outcomes and maximising progress towards achievement in education.

Limitations

This study consisted of two self-selection online surveys so is unlikely to fit the criteria for a representative sample of first-year college students, with further research required to investigate the generalisability of the models developed to explain student commitment and integration. The study did not include information on the student status in terms of repeating first-year students, this may be a relevant sample consideration for future research. The sample consisting of more female students than males was not ideal, however the robustness of the model and the lack of gender related difference in variance identifies this as not impacting this analysis. In terms of measuring student commitment and integration there are no fixed definitions or agreement of the method of measurement within the literature, but the authors strived to use measures representative of the constructs of commitment and integration accordingly, and to utilise measures well represented in the literature. This study focused on one college so further research is needed with a larger more geographically varied sample to gain greater understanding of the issues. This study uses student commitment and integration as proxy measures of risk of non-persistence, in line with the literature identifying student commitment and integration during year one in college as critical predictors of the likelihood that a student will persist, based on their college experiences (Tinto, 2006; Woosley & Miller, 2009).

Chapter 6 Peer-reviewed Paper 3

Students' Views of the Promoters and Barriers to First Year College Persistence in Ireland: A Partnership Study.

Published in *Student Success*, 2021, 12(1), 56-71.

Natasha Daniels

Padraig MacNeela

School of Psychology, National University of Ireland Galway, Ireland

Abstract

Navigating the transition to college and persisting is crucial to student college success. This research aims to explore the promoters and barriers to first year persistence, the student support needs in relation to these promoters and barriers, who students need the support from and when support is particularly needed. A participatory methodological approach was central to the study, carried out through a partnership with a cohort of 28 second year students to retrospectively explore the first-year college experience in Ireland. Participatory workshops conducted with the students identified persistence promoters, including being on the right course, gaining independence, academic supports, and connection to home. Barriers included being on the wrong course, anxiety, and lack of motivation to first year student persistence. These factors were further developed by the students to identify support solutions, personnel they need support from, and a three-pronged delivery solution, beginning in post-primary school through preparation for the transition to college. While confirming previous international studies, the research adds a novel understanding of the first-year student experience towards persistence and highlights the value and importance of giving students the space to share their original and detailed perspective of first year, as a student perspective supporting solutions for better higher educational outcomes.

Introduction

Student participation in education is an important matter for students, parents, educators, and policymakers alike. Critically, successful student participation in education is based on continuous persistence. The focus of much research in this area has been on the explanation

of student retention, taking the viewpoint of education institutions that pose the question of what they can do to improve retention. However, when students are engaged with on such issues the focus quickly turns to persistence, not retention. Student persistence is defined as a quality that allows a student to continue towards their educational goal even in the face of challenges, a quality closely linked by Vincent Tinto to the motivation to continue (2017). In turn the focus of student success research should be on what colleges can do to influence their students' motivation to stay, persist, and graduate, as this would in turn satisfy the original interest of higher education institutions to retain their students (Tinto, 2017). To achieve this reorientation to a process-based analysis of the student experience, institutions need to work with students to gain knowledge of their experiences and the support needs that enable a successful persistence process.

In Ireland, a higher proportion of post-primary school students transition to third-level education than in any other EU country (Department of Education and Skills, 2018b). The number of post-primary school students moving onto higher education in Ireland has increased significantly since the 1950s (Redmond, 2000) with 43,500 undergraduate entrants in recent years, amounting to approximately 60% of post-primary school leavers (Higher Education Authority, 2020b). However, of these students 14%, or approximately 6,000, do not persist past their first year annually (Higher Education Authority, 2016a), and 63% of all non-completion is accounted for by students leaving during first year (Higher Education Authority, 2019). Compared with international trends, Ireland is experiencing a moderate level of student non-progression (Heubelin, 2014). Given these statistics, one of the most important priorities for institutions is to support students as they transition to third-level education. This research addresses the issue of first year student non-progression, exploring the proposition that the process of successful first-year student persistence is founded on protective factors, and contributing to the development of a research methodology involving the lived experiences of students who have already engaged in this process.

There is a wealth of research on student persistence and retention to date (see for example Ketonen et al., 2016; Larsen et al., 2013; MAP-Works™ 2014; Redmond et al., 2011; Ryan & Glenn, 2004; Tinto, 2006; Tinto, 2017; Yonghong, 2016). This work documents a wide range of personal and institutional factors that impact students' experiences and therefore their persistence and retention in college (Hinton, 2007; Larsen et al., 2013; Redmond et al., 2011; Sadowski et al., 2018; Tinto, 1993; Tinto, 2017; Yonghong, 2016). Many studies identify barriers to first-year student persistence, including first generation status (Tinto,

1993), lower family socioeconomic background, (Larsen et al., 2013), financial strain (Bexley et al., 2013), an unsuitable college course (Redmond et al., 2011), and a lack of social integration (Hinton, 2007; Redmond et al., 2011; Tinto, 1993), personal motivation (Tinto, 2017), and preparedness for college (Larsen et al., 2013; Redmond et al., 2011; Sadowski et al., 2018). In conjunction with this, the factors that promote first year student persistence and or retention, are well documented, by Vincent Tinto in particular, and include motivation, self-efficacy, the feeling of belonging at the institution (Thomas et al., 2017; Tinto, 2017), strong social connections, high academic ability, formal academic integration (Tinto, 1993). There is widespread agreement that these comprise important factors conducive to a successful process of persistence (Brooker et al., 2017; Hinton, 2007; Larsen et al., 2013; Lowe & Cook, 2003; MAP-WorksTM 2014; Redmond et al., 2011).

Previous research agrees that there is no single factor identified to explain student withdrawal prior to programme completion, but more likely there are multiple factors responsible for attrition (Nelson et al., 2009). However, while well-developed in some respects, research-based knowledge on risk factors for withdrawal has had little development of information and knowledge derived from students' own experiences and through an affirmative approach that explores successful persistence. Much of the research available has adopted quantitative research methodologies (Ketonen et al., 2016; MAP-WorksTM 2014; Ryan & Glenn, 2004; Yonghong, 2016). There is less evidence available from qualitative methodologies (Moore-Cherry et al., 2015; Redmond et al., 2011; Sadowski, et al., 2018). The research base to-date features researchers alone interpreting and presenting the data, not in partnership with students. The consequence of this is a lack of student-derived insight as co-researchers with input and control over data development and interpretation. This current study offers an alternative perspective by adopting a participatory research methodology that includes the students as participants and partners in the research process and data development. Student generation, analysis, interpretation, and presentation of their own data is a central element of this current research, resulting in a unique contribution to this body of research: What do students who have persisted through first year in college have to say about the factors that influenced persistence, what supports they need, and when they are needed.

One study of significance in identifying a model for working in partnership with students on persistence-related issues was carried out by Sadowski et al., (2018). This Australian study adopted an Action Research approach with a participatory methodology which included a sample of first, second and third-year students. The study found that students faced

challenges in relation to personal circumstances, lack of preparedness for university study, timely access to support, and course difficulties. The associated supports identified by the students related to an academic advisory function, university support services, growing confidence in self as a competent student, and peer support. The current study aims to build on this previous research by conducting participatory research focused on the identification of promoters and barriers to first-year student persistence by enabling second-year students to develop, interpret and present their knowledge of this transitional time from their lived experience towards identifying student supports.

Participatory research differs from conventional research by focusing on carrying out research *with* people and not *on* people (Cornwall & Jewkes, 1995). Over the past decade there has been a growing emphasis internationally on involving children and young people in research, service design, and decision-making processes (Department of Children and Youth Affairs, 2019; O'Hara et al., 2017) on matters that affect their lives. It is widely acknowledged that young people are skilled decision-makers, able to reflect upon and shape their own experiences and environments (Lundy, 2007). It is a notable gap that this type of research approach is less developed in educational settings compared with community work (Wallerstein & Duran, 2006), health services (Domecq et al., 2014), or youth work (National Youth Council of Ireland, 2018). Participatory research methodology, which can incorporate varying degrees of participation due to research circumstances (Hart, 1992), at its best provides participants with increased control over the research, giving the opportunity to share their views and opinions without researcher interpretation and have them listened to (O'Higgins & Nic Gabhainn, 2010). This is the ethos and aspiration for this current study. By drawing on the experiences of students in this study, knowledge and supports concerning persistence in first year are more likely to reflect the lives of students and their direct needs for specific interventions.

The use of a partnership approach with students is novel, due to their involvement in guiding both the research project overall, as well as participating in data generation, analysis, and interpretation. This approach was adopted to explore students' perspective of first year college persistence towards developing student support solutions in Ireland. The purpose was to utilise a methodology that situated students central to the research processes, and enabled them to generate, analyse, interpret, and present the data in relation to the first year college experience and how students can be supported to persist. A central objective of this study was to develop a Student Research Partnership Panel (SRPP), composed of second-year students to work

as part of the research team developing, implementing, and participating in the research. The aim was for these students to retrospectively examine their first year experience towards identifying supports needed to promote first-year student persistence utilising an affirmative approach. To achieve this, the study had three research questions:

1. From the student's perspective, what are the promoters and barriers to student persistence experienced by first-year students?
2. From the student's perspective, what supports do first-year students need and who do they need this support from?
3. When during first year of college do students need these identified supports?
4. Can students participate as research partners towards finding a solution to the student-centred issue of persistence?

Methodology

Study Design

This study adopted a participatory research methodology with the aim of student involvement in the entire research process. Participatory research often involves the fitting of research principles to design a unique methodological approach that addresses the research questions. Hart (1992) identified the distinguishing features of participatory research to include research carried out by or with the people concerned, the presence of a commitment from the researcher to the participants and their control of the analysis, and for the research to investigate the underlying causes of the problem so the participants can begin addressing it. In addition to meeting the criteria identified by Hart, the approach of this current study is also derived from the four principles of Lundy's (2017) conceptual participation model through the provision of a space, a voice, influence, and an audience for the students. With these in mind, a methodology implementation plan was designed with two stages, outlined in Table 12 below.

Table 12*Stages of the Participatory Methodology*

	Stage 1	Stage 2
Aim of the stage	Development and implementation of the SRPP.	Implementation of student participatory workshops.
Approach taken	Student panel members act as partners in the research. Involvement includes study protocol development, student recruitment, data analysis and presentation.	Larger group of students participating in two linked workshops developing and analysing their data towards the articulation of the student perspective.
Adapted from	Jigsaw Ireland (an Irish Youth Mental Health Organisation; Illback, et al., 2010)	Daniels et al., 2014; INVOLVE, 2016; Olufisayo John-Akinola et al., 2014; O'Higgins & Nic Gabhainn., 2010

One benefit of involving young people in participatory research is securing their input to identify appropriate methodologies that are acceptable to their peers, including creative and innovative ways of collecting data (Shaw et al., 2011). This approach has been utilised in this current study and the methodologies that are applied are drawn from specific exemplars used in previous research (Daniels et al., 2014; Illback, et al., 2010; Olufisayo John-Akinola et al., 2014; O'Higgins & Nic Gabhainn., 2010). Implemented together, the two stages used in the participatory research approach offered the students an opportunity to be active citizens, in keeping with national and international youth engagement goals (Department of Children & Youth Affairs, 2015), promoting a strengths-based stance on addressing student education attainment problems by identifying opportunities that could enhance the process of persistence.

The application of this methodology is best explained in three interlinked phases. The first phase involved the establishment of the SRPP as partners in the research process. The second phase focused on recruitment of a wider student pool and their participation in group data collection workshops. The workshops involved each group of students participating in two data generation and analyses sessions. The final phase of the research involved the SRPP reviewing the data produced from all group workshops, identifying themes, and presenting the “data story” for the overall project. Ethical approval for this research was granted by the Research Ethics Committee of the National University of Ireland Galway. The overall research question of the study was established prior to commencing work with the students.

The panel involvement began after ethical approval, involving the panel members reviewing the overall study idea, research questions, the best way to ask the questions of the other students, the workshop protocols, and methodologies. In addition to this, the help and participation of the SRPP summarising and presenting the data for this paper upholds their right to a voice to share their opinions and perspectives with an audience. Separately the findings of their research were shared with the management of the education institution where this research was conducted to ensure the audience has due influence to act upon the research findings, in keeping with the four principles of Lundy's model of participation (2017).

Phase 1 - Student Research Partnership Panel Recruitment and Procedures

The SRPP project was advertised using a variety of online and word-of-mouth channels on campus. Four students volunteered to participate, which comprised a manageable group size for the process of planned work. The panel comprised three females and one male, ranging in age from 19 to 47 years (three participants were aged under 23 years). All were second year students. Three of the students were representative of a "youth" age range (15 to 24 years), with the addition of one mature second year student who expressed a keen interest in participating in the project. Each student participant was awarded ECT credits (pre-defined credits assigned based on defined learning outcomes and their associated workload), for their participation in the project and a voucher to acknowledge their contribution when the project ended.

Once the SRPP was established, the researcher and the panel arranged a Meeting to discuss the project in more detail. The panel met with the researcher on four occasions during the duration of the project and all four members attended each meeting/workshop. The duties of the panel were discussed and agreed upon during the first meeting. These included: Reviewing the drafted research questions and the data collection workshop methodologies, participation in the workshops to gain an in-depth understanding of the process, helping with student recruitment for the workshops, and contributing to the review, analysis and clear presentation of the findings of the student-generated data. The students were assured of the value of their opinions and input and were asked to be open and honest during the process. If the students did not agree with any part of the research, they expressed this, and a change or solution was agreed upon by the students. Meetings 2 and 3 were for the SRPP to participate

in the workshops and Meeting 4 was for the Panel to review all the student data and develop their data story.

Phase 2 – Student Group Workshops Recruitment and Procedures

Second year students were contacted via various campus groups and recruited. Some students who participated were eligible to receive class credit for research participation. It was not part of the project development, planning, or ethical approval to include students who had not persisted. It was the aim of the study to work with students who had completed first year and therefore had the lived experience and hindsight to consider the year in its entirety and to develop data on the support needs of first-year students who had persisted. The research process involved participation in two consecutive workshops. These workshops were carried out in the northern hemisphere Spring 2018 with 28 second year college students.

Workshop 1 provided students with a “blank canvas” to explore the promoters and barriers of first year college persistence. The aim of this workshop was for the students to share their ideas about this in an open-ended process without any influencing materials other than the research questions. In workshop 2, using the data generated in workshop 1, the participants developed a “Timeline of Supports” for the first year of college. The two workshops were run for four groups of students who volunteered to participate, achieving the originally agreed approximate participant number of 30 participants (Guest et al., 2017). The participants were randomly assigned to each workshop group based on the order in which students volunteered. The students were primarily from the College of Arts, Social Sciences, and Celtic Studies (n=25), Biomedical Science (n=4), Law (n=1), and Business (n=4). The workshops were piloted with a group of six second year students and all students were able to participate fully, without need for subsequent adaptation or changes. Due to this, the data from this group were included in the main study.

Workshop 1 Procedure

During this workshop, the student activities were guided to answer each of the following four research questions:

1. What promotes student persistence during first year at college?
2. What prevents student persistence during first year at college?
3. What supports are needed to help students persist during first year at college?

4. Who is this support needed from?

The workshop took place through four activities:

Data generation promoters and barriers: Each participant was given Post-Its and asked to write one answer in response to “*what are the promoters to student persistence during first year in college?*” then all Post-Its were placed on a display space. Secondly, they were asked to do the same for the question; “*what are the barriers to student persistence during first year in college?*” and these Post-Its were placed in a separate designated space. This was an individual activity carried out in a quiet space.

Data categorising: This was a group activity completed separately for the promoter data and barrier data. To help with this activity the researcher acted as a non-directive facilitator to the process moving the Post-Its into groupings as directed.

Voting: This was an individual activity. Each participant was given five votes to identify their top promoters and five more votes to identify their top barriers to student persistence. The votes were counted and the top barriers and promoters to student persistence were identified.

Pizza chart generation: The participants were divided into two groups, one of which worked on the barrier themes while the other group worked on the promoter themes. Each group was given a pre-prepared chart with the top barriers or promoters written into the centre layer of the chart and were asked to complete the two remaining layers by answering the following:

Identify the actions/supports students need to address the barrier/promoter? And identify who needs to be involved in this process?

Workshop 2 Procedure

Preparation: During the week between workshop 1 and workshop 2 the researcher prepared materials to support an engaging structure for workshop 2 that provided suitable opportunities for participation. This involved blank timeline charts and a “pack of cards” with each individual support identified in workshop 1 written on an individual card.

The card game: The participants worked in small groups with a “pack of cards” and a timeline chart. The group was asked to deal the cards and to decide what part(s) of the

timeline the support belonged in. Participants were provided with glue to stick the support on and colours to identify how long the support is required along the timeline.

Timeline review: When each group completed their Timeline, they were asked to review it and add any additional supports they thought were important in red marker to help differentiate them.

Phase 3 - Data Storytelling

The final researcher and SRPP meeting aimed to review the pizza chart data from all the workshops and to tell the overall “data story”. This meeting had four central aims, to identify:

1. The key barriers to persistence during first year in college.
2. The key promoters to persistence during first year in college.
3. Who were the primary sources of help/support identified by the students?
4. The key supports students need and when they need them during year one at college.

The activities undertaken in this final meeting were mapped to the aims. The first activity involved the SRPP reviewing the barriers data. The panel reviewed this data by using a colour coding system where all barriers were categorised into related themes. For example, all themes related to “course” were red, “friends” were blue, and so on, until all related themes were merged resulting in the key barriers. This activity was repeated for “promoters”, “supports” and “who”. This data collection and analysis approach adopts a similar ethos to previous participatory research (Daniels et al., 2014; INVOLVE, 2016; O’Higgins & Nic Gabhainn, 2010). The use of such interactive and inclusive research activities during this type of research is well documented and regarded (Illback et al., 2010; INVOLVE, 2016) and this current study adds to the literature on the utility and usefulness of this methodological approach.

Results

The results are presented in two sections to represent the stages of the research. Phase 1 presents the decisions, procedural agreements and changes made by the SRPP before group data collection begun. Phase 2 presents the results of the group data collection phase and the interpretation of the SRPP of these data overall, the “data story”.

Phase 1 – SRPP Meeting 1 Outcomes

During Meeting 1 the SRPP reviewed the research questions and the workshop methodologies as devised for ethical approval. For workshop 1 the panel agreed that the research questions should be asked in a simplified way. They agreed to keep the original research question during the workshops, namely “what are the promoters to student persistence during first year in college?” and decided to display the question phrased in three different ways with the addition of two reworded versions: “what positive thing did you experience to help you stay in college?” and “what positive thing did you experience to help you stick out first year?” The barriers research question was rephrased in a similar way.

For workshop 2 the panel identified six parts of the academic year to divide the timeline into to enable the students identify when they need supports. The six parts that were identified as important to be individually considered were: before entering college, the first four weeks of college, the rest of semester one, Christmas exam time, semester two, and Summer exam time.

Phase 2 - Data Generation and the “Data story”

The Promoters

In total the participants developed 136 individual responses when identifying promoters. The participants categorised these individual data into 30 themes of promoters. The SRPP reviewed the 30 themes during the final SRPP workshop and using a colour coding system identified six key promoters emerging from the workshops as displayed in Table 13.

Table 13

The Six Key Promoters to First Year Student Persistence

Student Group 1	Student Group 2	Student Group 3	Student Group 4
Course	Course	Course	Course
Social life/friends	Social life/friends	Social life/friends	Social life/friends
Independence	Independence	Independence	Independence
Academic supports/experiences	Academic supports/experiences	Academic supports/experiences	
Home	Home	Galway	Home Galway

Within each of these six key promoters to student persistence, the participants identified what specific supports they need to enact them and who they need the support from. Table 14 details this information for three promoters that emerged in at least three group workshops. The “who” data displayed in Table 14 represents the people or services the students deemed relevant to be involved in addressing the supports generally in relation to each promoter.

Table 14

What Supports Students Need to Persist and Who They Need This Support From

Promoter Category	What supports are needed to enact this promoter?	From who?
Course	Options for transferring (x3).	Class representatives.
	Make course assessments clearer (x2).	First-year coordinator.
	Emphasis balanced on Leaving Certificate and college in school (x2).	Guidance counsellors in school.
	Promotion of facilities e.g., guidance counsellor.	Guidance counsellors in college.
	Longer fresher’s week for first years.	
Independence	Helping students with life skills like cooking, budgeting etc. (x2).	Students Union. Clubs and societies.
	Being away from home/parents for the first time.	Parents.
Social life/friends	Clubs and societies are important (x3).	Lecturers (x3).
	Student accommodation integration (x4).	Mentors (x2).
	More fun days and events for classes (x2).	Students Union.
	Smaller classes sizes (x2).	Friends.
	Emphasis should be made in class to engage in the people beside you – not enough encouragement (x2).	Course co-ordinator. Accommodation office. Societies and clubs.

Notes: *** (x2) stated in 2 separate workshops. (x3) stated in 3 separate workshop groups.

The Barriers

In total the participants developed 132 individual responses when identifying barriers. The participants categorised these individual data into 23 themes of barriers. The SRPP reviewed

these 23 themes during the final SRPP workshop. Using a colour coding system, the group identified ten key barriers as emerging from the workshops, displayed in Table 15 below.

Table 15

The 10 key Barriers to First Year Student Persistence

Student Group 1	Student Group 2	Student Group 3	Student Group 4
	Course	Course	Course
Friends/loneliness		Friends/loneliness	Friends/loneliness
	Money	Money	Money
Accommodation		Accommodation	Accommodation
Adapting to college		Adapting to college	Adapting to college
Academic stress	Academic stress	Academic stress	
Anxiety			
Academic skills			
	Lack of Motivation		
			Substance abuse

The participating students provided insight into the specific supports needed to reduce or eliminate each of the 10 barriers to persistence that were identified. Table 16 details this information for three barriers that emerged in at least three group workshops. The “who” data displayed in Table 16 represents the people or services the students deemed relevant to be involved in addressing the supports generally in relation to each barrier.

Table 16*What Supports Students Need to Persist and Who They Need This Support From*

Barrier Category	What supports are needed to reduce/eliminate this barrier?	From who?
Course	More information on open days (x2).	Course directors (x2)
	Options for transferring (x2).	First-year co-ordinator.
	Meetings with academic supervisors more accessible.	Guidance counsellors in school.
	Promoting college facilities, e.g., guidance counsellor.	Guidance counsellors in college.
	More information on modules.	
Friends/ Loneliness	Joining clubs and societies (x2).	Clubs and societies (x2)
	Tutorials and smaller class sizes (x2).	Accommodation (x3).
	Talking to a counsellor.	Course co-ordinator.
	More promotion of mental health supports.	Mentors.
	Semester 2 orientation.	Lecturers/head of schools.
	Ongoing efforts to help students to get to know others.	
Adapting to college/ new experiences	Friends are so important.	Tutors.
	Tutorials and tutors can help.	Mentors.
	Longer orientation.	Friends.
	More first year events.	Student union
	Map – more awareness of interactive map online.	Co-ordinators

Notes: *** (x2) stated in 2 separate workshops. (x3) stated in 3 separate workshop groups.

**“Digs” refers to student accommodation provided by people in their own homes.

Table 17*Summary of the Number of Supports Needed during First Year at College with Examples*

Part of the Academic Year	Number of Supports needed	Examples of specific supports
Before entering college	47	Not enough supports in secondary school for students to transition to college life. More supports from schools and guidance counsellors.
First four weeks of college	44	Longer fresher's week for first-year students to get to know the place. More options for transferring. Better assignment to accommodation.
Semester one	28	Opportunity to switch accommodation during the year. More interactive classes. Group projects/tutorials.
Christmas exam time	11	Longer time before exams to study. Time management courses. Lecturers' office hours.
Semester two	18	Promoting clubs and societies. Semester two orientation. More leeway to change course without having to pay full fees again.
Summer exam time	4	Longer time before exams to study.
All year supports	63	More promotion of mental health supports. More leeway to change course without having to pay full fees again. Stricter requirements for attendance.

Workshop 2 Timeline of supports

Six Support Timelines were created based on the support information from workshop one. Table 18 aligns the supports with each part of the year and provides examples of the supports. In addition to this, the SRPP reviewed the "Timeline of Support" data and developed an overview of the data. This overview details the main overarching concept of three key stages of first year in college and the primary areas to focus support in each one (Table 18).

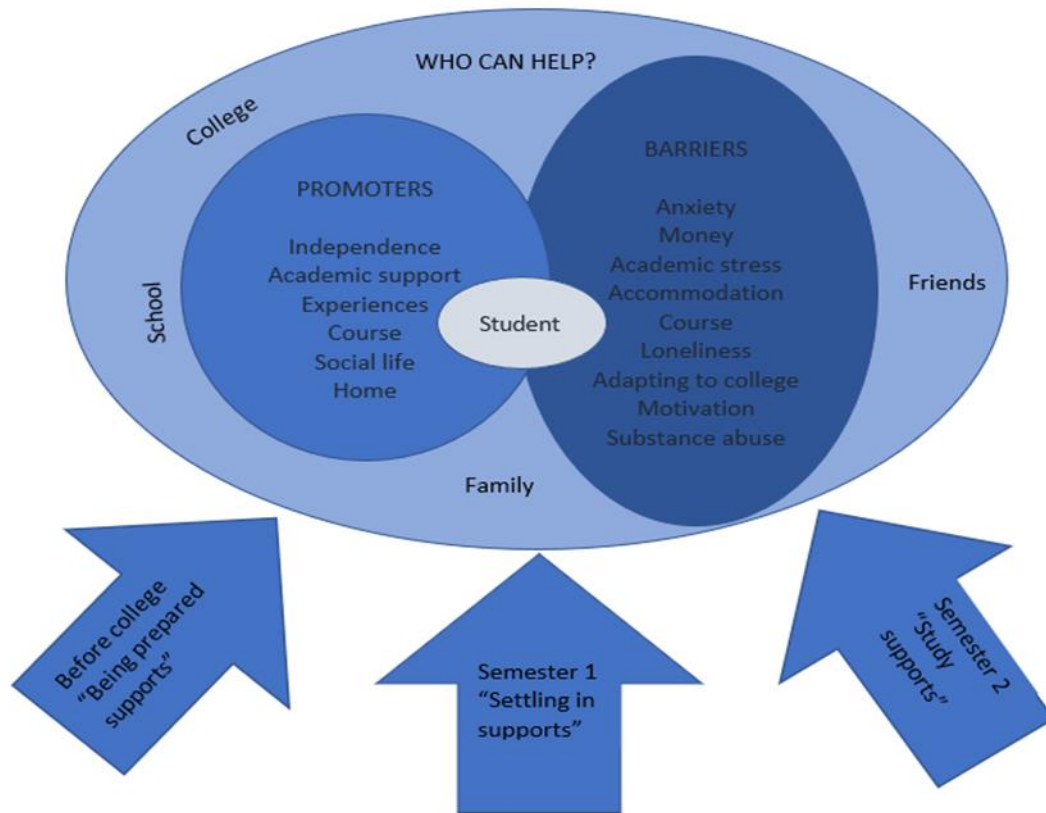
Table 18*Overview of the Timeline of Supports Data*

Part of the academic year	Overall concept	Overview points
Before entering college	“Being prepared”	Selecting the right course. Figuring out your strengths in school. Knowing what to expect in general. Accommodation.
Semester 1	“Settling in”	Time management skills. Academic support, grinds, and tutorials. Transferring course options. Online group chat within each course for social support.
Semester 2	“Study Supports”	Stricter attendance linked to credits. More continuous assessment. More tutorials and grinds. Emphasis on club and society involvement. Condensed timetable – not hanging around.

Figure 8 integrates the findings from the detailed student workshops. Inspired by the analogy of ‘college ecology’, this representation enables the priority promoters and barriers to first year student persistence to be identified. It also allows inclusion of people and services who the students identified as providers of supports related to the identified promoters and barriers. Lastly a three-pronged delivery approach and themes for the supports is identified.

Figure 8

Summary of The Student Data



Discussion

The focus of this research was to involve students as research partners towards identifying student persistence support solutions. Although situated within an Irish context, it can be argued that the findings have relevance for other countries given the identification in this study of factors seen in previous research. The study represents the use of a novel methodology with students partnering in a research project to explore student persistence and present their unique viewpoint, thereby adding a valuable perspective and methodological approach to student persistence literature. This demonstrates their ability and knowledge to participate in solution focused projects and or research with education institutions towards student persistence solutions. The students co-designed a practical and applied depiction of persistence for first-year students. They actively participated to generate, theme, categorise and present comprehensive student persistence data in a meaningful way. The students developed data on the promoters and barriers to first year persistence, highlighting student social interactions, personal and time management, academic supports, course transfer

options and preparation for college as the key areas. The students identified specific supports in relation to these issues, which they felt would enable the promoters and reduce the barriers. They also identified when they need these during the first year in college and who they need support from.

To persist through first year in college, students identified that it is necessary to successfully engage in a complex, ongoing and varying process of interactions and experiences. This echoes previous research (Ketonen et al., 2016; Nelson et al., 2009; Redmond et al., 2011). However, in recognition of this the students agreed a highly contextual depiction of key promoter and barriers to first-year students' persistence, through a transparent process of categorising and voting. Six priority promoters emerged from this current research, three of which have been identified in previous research; the "right course" (Redmond et al., 2011), "social life/friends" (Hinton, 2007; Redmond et al., 2011; Tinto, 1993), and "academic supports" concurring with the importance of academic integration identified in previous research (Tinto, 1993). In addition, three new promoters were generated from this current research. "Home" referred to the ability of students to connect with and go home regularly as a source of support, "Galway" describes being part of a new city community which is relevant for students who moved location from rural living to begin college, and "independence" developed as a new promoter from this student-centred research.

Six priority barriers were also decided upon by the students. Being on the wrong academic course, a theme that is reflected in previous research (Redmond et al., 2011) and "friends"/"loneliness" in line with the importance placed on social integration at college for student persistence (Tinto, 1993). In addition, "money", "academic stress", and "accommodation" were decided as priority barriers in line with their acknowledgement as important factors for the student experience and thus, persistence in previous research (Brooker et al., 2017; MAP-Works™ 2014). The students identified difficulty "adapting to college life" as a barrier, which can be linked with the knowledge from the literature that student preparedness and or readiness for college are important to the process of student persistence (Jansen & van der Meer, 2011).

The findings on promoters and barriers to college strengthen existing literature and emerge as priorities from the students themselves and add new priority areas. Taken together, they represent the key areas identified in this study to focus first-year student supports towards persistence, derived from the students' own lived experiences and perspective. The

emergence of three new promoters in this current study also speaks to the importance of an affirmative, prevention-focused approach to generating knowledge on the student persistence process and demonstrates the scope to further develop our understanding of the student experience to-date.

Three promoters and barriers overlap in this study, namely “academic course” (both a promoter and a barrier), “social support” (promoter) or “loneliness” (barrier), and “academic support” (promoter) or “academic stress” (barrier). This convergence places extra weight on these three factors, highlighting their potential to help or hinder a student’s persistence. Choosing the right academic course is also referred to in the literature as a key persistence factor by students (Redmond et al., 2011; Sadowski et al., 2018), however this is not specifically addressed within commonly cited models of student retention (Bean & Eaton, 2000; Tinto, 2006). This current study adds considerable weight to the importance of each student feeling they are in the right course as a key influencing factor and suggests inclusion as a core determinant of student persistence. Academic and social integration are well documented to be key determinants of student persistence (Tinto, 2006; 2017), with this study adding to this knowledge with a perspective directly derived from the students’ experience. The identification of “independence” as a promoter and of problems “adapting to college life” as a barrier are linked. Both themes concern the learning of life skills and greater ability to be responsible for oneself as solutions.

Another solution suggested by the students that reoccurred repeatedly was for longer first year orientation, to include aspects of personal development and life skills. This is in line with research on orientation stating that high quality orientation programs can improve retention (Ramsburg, 2007). Although participation in orientation programmes has been shown to be important in helping students adapt to university life (Gill et al., 2011), one of the main criticisms made of these programmes is the potential to overload students with information (Singer, 2003). Building in a longer timeline and greater exploration space to receive and understand this information is a possible solution as suggested by the students in this current study. The emergence of these themes highlights the need for students to be supported academically, as well as personally, in line with previous research (Redmond et al., 2011; Ryan & Glenn, 2004; Sadowski et al., 2018) as they prepare to move to a more independent life stage with greater responsibility.

In addition, the students offered many practical support solutions towards implementing the promoters and eliminating or reducing the impact of barriers. For example, some suggested solutions to the promoter and barrier facets of the academic programme itself included “options for transferring”, “make course assessments/expectations clearer”, and provide “more information on modules”. These are practical solutions building upon previous qualitative research where students identified academic course or modules as important to persistence (Redmond et al., 2011; Sadowski et al., 2018).

In relation to the promoter “independence” the students were able to be specific with the suggested solutions “helping students with life skills like cooking, budgeting etc.”. The promoter “friends” and the barrier “loneliness” offered solutions that complement and mirror each other, for instance “clubs and societies are important”, “student accommodation integration”, “smaller class sizes”, “semester two orientation”, and “talking to a counsellor”. This data builds upon previous research discussing and identifying student persistence challenges (Booker et al., 2017; Ketonen et al., 2016; Moore-Cherry et al., 2015; Redmond et al., 2011; Sadowski et al., 2018). This study builds on that work through the provision of insights into the students’ perspective of the transition to college, their practical approach towards developing solutions, and suggestions on how to improve the student experience and the college environment. The problem-solving orientation of this research and the inclusion of students’ perspectives in a holistic way adds a valuable perspective. The identification of support solutions specifically linked to both promoters and barriers of persistence within one piece of research allows for consideration and consolidation of this student information in a new way, enabling promoters and barriers and their applied solutions to be linked within the timeline of the first year of college.

The students also explored who they needed support from, in terms of personnel or services. Two key observations emerged from this part of the research. Firstly, the students identified many institutional services and personnel that need to be involved in enacting the promoters and eliminating the barriers of student persistence. This highlights their understanding of the complexity of the support required and the collaborative approach needed to improve student persistence. This perspective is consistent with adopting an institutional approach to student success spanning the literature (Thomas et al., 2017; Tinto, 2006). The second observation is the omission of students as a group of people with the power to improve student persistence. The “who” named included schools, parents, guidance counsellors, college management, lecturers, friends, students union, accommodation office, course coordinators, and

Government agencies all having some input or control. Students did not list themselves as agents of change. This could be interpreted to mean that they see students as having little control over their own education and how it progresses. This adds a potentially original finding to the research to date, due to the identification of “timely access to campus supports” by students as important to persistence in previous research (Sadowski et al., 2018).

This finding highlights a need for student supports during first year and in preparation for the transition to college to be inclusive of Positive Youth Development (PYD) (Lerner et al., 2005) strategies to prepare them to be self-regulating and autonomous for this next life stage. PYD includes a focus on building competence, character (inclusive of developing autonomy), connection, confidence, and compassion. The PYD perspective has the goal of each youth developing their contribution to their own self, their family, community and to society more broadly. This personal development approach is applicable to the transition to college due to the increased independence and self-responsibility students experience. Building on this, a university-wide shift in student inclusiveness in information sharing and decision making is needed. An example of a project that has the potential to help guide universities to increase and promote greater student involvement is the Student Voice Australia Pilot Project. This project has a central aim to build student input into university governance, as an input towards a more systemically inclusive student voice in decision-making and Australian universities (Varnham et al., 2018). The project resulted in the development of a set of principles for quality enhancement across the sector, with student engagement a key focus (Varnham et al., 2018). Though this project does not specifically focus on student persistence it provides a comprehensive example of engaging greater student participation for enhancing university governance. The pilot project demonstrates the potential for student engagement approaches to be useful in understanding the university experience from students’ perspectives, towards an overall college experience reflective of their perspectives and needs.

Although many of the student supports that emerged in this current study are identified in previous research (Brooker et al., 2017; Ketonen et al., 2016; Moore-Cherry et al., 2015; Sadowski et al., 2018), this current study builds on available knowledge through the organisation of the student suggested support provision by time during first year at college. This process involved separating the first year of college into three parts from the student’s perspective. Assimilating this perspective could enable higher education institutions to design and tailor first year preparation, orientation, adjustment, and personal development initiatives, with the goal of addressing what students identify they need and when they need it. The novel

timeline of supports developed by the students allowed for further exploration of the first year experience and to identify when students needed specific supports. The SRPP overview of this data resulted in three distinct themes. The first theme was named “being prepared” before entering college. This involved each student selecting the right course, securing appropriate accommodation, knowing their subject strengths from school, and knowing what to expect from college in general. The second theme was named “settling in” and referred to semester one at college. This involved students’ awareness of options to transfer academic programme, to access academic supports and tutorials, to access personal development support (e.g., time management) and opportunities for social interaction (e.g., online group chat within each course for social support). The third theme was named “study supports” and was identified as semester two at college. This involved stricter class attendance linked to credits, more continuous assessment, more tutorials and grinds, and an emphasis on club and society involvement.

Limitations

The sample size utilised was reflective of other participatory research, and thus remained relatively limited due to the commitment and time involved in repeated engagement with participants and the process of engaging them with tasks and discussion of shared perspectives. While it is a limitation that the study does not offer a focus on more specific student demographic groups, the nature of the methodology lends itself to inclusive participation, particularly of student groups that can be hard to reach. Further research on promoters and barriers of persistence could be carried out in different countries and across different disciplinary areas, and should include the perspectives of non-traditional students, mature students, students with disabilities, international students, and first-generation students. Such further development of the student participation methodology used in this study would be complementary to the exploratory nature of this research aiming to portray a more general sense of the first-year student experience.

The inclusion of one mature student within the student panel could be interpreted as a possible limitation, however this student expressed a great interest in participating in the project and was excited to be involved in such a practical work happening on campus with potential positive implications for the students. The self-selection process of the students who participated may be considered a limitation due to the possibility that more enthusiastic

students participated thus further research, and a larger number of student groups, would be beneficial to ensure important data is not being missed. This study focuses on the promoters and barriers of first year persistence with second year students, however it would be important to hear the opinions of students who did not progress with their studies in terms of the barriers they experienced, when in the timeline and supports that may have helped them overcome these. This study was not developed based on a guiding theory due to the focus of the research on students developing and presenting their data from their perspective. The researchers prioritised giving the participants the “space” to create their own data and to build their own model. However, considering the data developed by the Ecological Model for Health Promotion (McLeroy et al., 1988) as a conceptual and guiding theoretical framework for understanding the first-year student process within the college environment seems like an interesting theory to investigate in future research.

Conclusion

To our knowledge, this is the first study in Ireland to work specifically with second year college students who have the lived experience of first year at college towards the development of detailed data on their experience inclusive of promoters, barriers, supports and timelines for support towards student persistence. This paper portrays the wealth of important information students have to offer in relation to improving student persistence internationally. In addition, this study also highlights the potential value and benefit of such partnership with students, with the potential for practical applications such as input to university decision-making and governance, given the additional support solutions suggested by students.

This study findings add to the literature on first-year student persistence by validating existing research not conducted with students as partners and adding new student developed perspectives and solutions. These included more student preparation for college supports, more flexible course selection and transfer options, social supports in semester one specifically, personal development and time management supports and academic supports. Importantly, the study enabled students, for the first time, to identify such needs in conjunction with a timeline for delivering them during the academic year. The ongoing communication and relationship of the students and the researchers enabled this next level data generation into suggested institutional and national actions and strategies for change.

Other methodological choices would not have enabled the development of such detailed, student-generated data. The use of such partnership approaches will encourage researchers and university management to engage in a comprehensive suite of student participation processes. This goal has both values-based and practical roots, given the applied importance of understanding the problems that students experience and the mechanisms by which these problems can be addressed and lessened, promoting student persistence and retention.

Chapter 7 Discussion

7.1 Introduction

This research set out to explore the first-year student transition to college in Ireland from a student centred, persistence-based viewpoint, inclusive of consideration for student well-being. Theoretically and empirically, the factors with the potential to impact student persistence and retention are well documented (Jones, 2008; Thomas, 2012; Thomas et al., 2017; Tinto, 2006; Troxel, 2010), but much of this literature does not link with student well-being. This current research aims to address this gap in the literature. In achieving this, student commitment (Study 1 and Study 2) and integration (Study 2) were operationalised as the outcomes of focus, exploring student well-being and student persistence factors in the quantitative studies of the multimethod design. Thus, this research adds to the existing literature on our understanding of student well-being as an important factor towards persistence. In addition, Study 1 and 2 were complemented by a qualitative conceptualisation of student persistence working in partnership with students who have completed first year. This participatory research data adds to the international literature on student persistence from the student perspective.

7.2 Chapter Overview

In keeping with the multimethod design, this chapter discusses the findings of the three studies in conjunction, highlighting the contribution they make to the literature. Given the potential of the research to contribute to the literature, this chapter also presents a new integrative model of persistence, with the inclusion of well-being towards a more comprehensive understanding of student persistence. This chapter concludes with an overview of the implications, strengths and limitations of the research, as well as recommendations for further research.

7.3 The approach of this research

In the quantitative studies, the research focused on student persistence (Study 1 student commitment, Study 2 student commitment and integration, as proxy measures) as the

outcomes of interest, considered to be a malleable factor towards student education attainment (Ben-Avie & Durrow, 2019). Study 1 included a set of important persistence factors as identified from the literature, in a cross-sectional study with the addition of well-being factors. Study 2 explored the relationship between student well-being early in first year with student commitment and integration at the end of the year, factors that are considered central to persistence (Thomas, 2012; Tinto, 1993). The qualitative participatory research carried out in Study 3 explored persistence from the perspective of students who successfully persisted into second year, providing an opportunity to integrate a student perspective with the literature and also to enable the emergence of new student priorities.

Overall, this multimethod research aimed to shed light on four important considerations within the first-year student experience. Firstly, to provide evidence of the important factors with the potential to impact student persistence quantitatively and qualitatively. Secondly, to provide evidence of the relevance of well-being as an important factor in the process of persistence. Thirdly, to provide student-derived information of the supports needed, when they are needed, and who they are needed from during first year. Finally, to explore an information gathering methodology utilising quantitative and qualitative approaches, inclusive of student partnership, for higher education institutions to adopt towards improving student outcomes.

It is timely to advocate for the inclusion of well-being in understanding and supporting student persistence, and more generally student higher education outcomes. Nationally and internationally, there is growing concern for college student well-being, with an increasing focus in research and strategy that specifically relates to rising student mental illness rates and support needs (Auerbach et al., 2018; Dooley et al., 2019). Researchers focused on student well-being acknowledge its relevance to student education achievement (Ahrberg et al., 2012; Auerbach et al., 2016; Bruffaerts et al., 2018; Gaultney, 2016; Gilbert & Weaver, 2010; McLafferty et al., 2017; Ruthig et al., 2011), and researchers focused on the student college experience acknowledge student well-being as a potentially important factor (Brooker & Vu, 2020; Kahu & Nelson, 2017). However, student well-being has yet to be integrated within student persistence and retention theoretical modelling (e.g., Tinto, 1993) as an important factor within the process of student persistence. Therefore, the rationale exists to consider student outcomes and the student experience overall as requiring a heightened focus on the relationship between student well-being and student persistence.

There is a wealth of research offering established insights about student persistence and retention (Thomas, 2012; Tinto, 1993; Tinto, 2017), however continued development of an applied perspective on this work is required as traditionally there has been a gap in translating such knowledge into student support initiatives and activities (Thomas, 2012). Much of the research lacks practical examples of institutional approaches and specific interventions designed to address student retention and success on a practical level. In addition, research exploring student persistence/retention (e.g., moving from year one to year two in college) differs from research exploring factors with the potential to impact persistence (e.g., commitment, belonging and engagement), with the latter providing important understanding of the factors with the potential to impact the likelihood of student persistence, from a student-centred viewpoint. This research aimed to add to the knowledge of the student perspective of these factors with the applied potential to impact student persistence through intervention and support. Thus, the findings of this research address an area and approach within the literature on the first-year student experience that has not been comprehensively researched, and where the provision of more information will be useful for research, practice and policy, both internationally and in an Irish context.

7.4 Linking the three research studies

This research adopted a multimethod design towards understanding the first-year student experience. Although the specific research questions of the three studies relate to student persistence, they differ in their epistemological approaches. Study 1 was a cross-sectional survey approach used extensively within retention research, Study 2 provided a longitudinal perspective of the first-year student experience with a particular focus on well-being, and Study 3 focused on a student partnership approach to understanding the process of student persistence and the required supports.

The most prominent predictors of student commitment, that is, the dependent variable that represented student persistence in Study 1, emerged as being enrolled in the right course, academic self-efficacy, perceptions of the academic environment, peer connections, depression, physical activity, and self-rated health. On a conceptual level, the factors that emerged have academic, social and well-being roots, suggesting the importance of including student well-being within student success models and frameworks such as *What Works?* (Thomas, 2012).

Student depression emerged as significant, with approximately 50% of students reporting depressive symptoms, and of these 16.7% reporting severe depressive symptoms at Time 1, with similar reporting rates at Time 2. These rates correspond to the findings of the MyWorld survey (Dooley et al., 2019), pointing to the relatively high prevalence of this problem among Irish college students, a trend also identified internationally (Auerbach et al., 2016). Self-rated health was reported to be excellent, very good or good by 83.5% of the students who took part in the Time 1 survey, with 16.6% reporting fair or poor health, with little difference noted at Time 2. This finding is not consistent with earlier research conducted with a sample of 194 first-year students in Belgium, which suggested a decrease in self-rated health from Time 1 and Time 2 (De Coninck et al., 2019).

The consistent rates of self-rated health and depression between Time 1 and Time 2 may raise a question about the self-selection of the students who participated in the Time 2 survey. It is possible that the students who are potentially experiencing difficulties are less likely to participate in such surveys on campus, a common consideration for self-selection survey research. However, considering this as a possibility, the data remains valuable in addressing the hypothesis of the research and in portraying the importance of student well-being towards persistence. It may be the case that, while the methodology is relevant and important, an institutional priority is required in the higher education institution to support communication and a whole-campus drive for participation in such research to achieve greater student participation. Thus, this is an important consideration for future institutional student information gathering activities and to the importance of early intervention supports for students who are experiencing challenges very early in their college experience to prevent disengagement.

The emergence of being enrolled in the right course and of student academic self-efficacy as factors associated with persistence can be linked with Tinto's identification of perceived value of the curriculum and student self-efficacy as important to persistence (Tinto, 2017). In addition, perceptions of the academic environment which include consideration of the academic atmosphere being enjoyable and satisfaction with the teaching skills of the lecturers, link with the importance of academic factors to persistence as found in other research (Thomas, 2012). These findings confirm the importance of such factors to student persistence and retention, as found in international research and highlights their continuing relevance to higher education initiatives.

In Study 1 student depression, physical activity, and self-rated health emerged as associated with the proxy measure of persistence. This links closely with the findings of Study 2, as depression, self-rated health and cannabis use were significant predictors of student commitment and integration, the proxy measures of persistence used in that study. Taken together, both studies provide evidence of the potential relevance of student well-being to student persistence. In agreement with previous research, these findings point to the importance of student mental health as a priority area (Brooker et al., 2019). In addition, student self-rated health emerged as an important factor similar to previous research (De Coninck et al., 2019). While clearly aligned with the physical health component that features highly in healthy campus initiatives, this factor is not clearly defined within the literature, and it would be important for further research to better understand what this means to students and how higher education actions, or interventions can potentially enable a positive sense of personal health.

Thus, Study 1 and 2 demonstrate the link between student well-being and student persistence, identifying the importance of the academic course, social experience, academic experience and well-being to student persistence. These findings identify the areas to prioritise student monitoring and support efforts towards enhancing the student experience. In consideration of this, it is evident that higher education institutional strategy should include information gathering activities to collect student data as a basis for informing applied campus priorities such as student support initiatives, student orientation, and identification of student transition needs.

It is envisaged that such a framework for information gathering should be developed using a socio-ecological model approach (McLeroy, 1988) towards integration within the higher education institution at all levels. The strategy could potentially guide the development of a student experience survey toolkit to be deployed annually within the higher education institution, including dissemination across the institution to all staff members and students. The information gathering strategy could potentially include a cross-sectional survey approach to assess semester 1 college transition information, with the aim of identifying early warning signs of students experiencing challenges given the prominence of early intervention in achieving student success (Thomas et al., 2017). In addition, a complementary semester 2 follow-up survey could potentially provide updated information and track students more systematically towards further intervention.

It is envisaged that approaching the development and implementation of such a strategy from an ecological viewpoint would enable higher education institutions to gather and disseminate student experience knowledge in a systematic manner across the institution at all levels, to all personnel. The intended result would involve a collaborative approach to integrate an ongoing information function to inform institutional policies, system changes, staff agendas and training needs, staff and student capacity building, student supports and physical environment changes. Such an approach is currently not evident within Irish higher education institutions, pointing to the relevance of this current research in providing an example of the development and implementation of such.

In addition to the quantitative research, Study 3 involved a participatory study conducted in partnership with second-year students to retrospectively explore their first-year experience. This study provided the student perspective of persistence factors and their related supports, resulting in the development of rich data. The students identified important persistence promoters including; being on the “right course”, “gaining independence”, “academic supports”, and having a connection to “home”. In addition, this study offered three new promoters identified as “home”, “Galway” (linking to the city the education institution is based) and “independence” to the literature. These new promoters can be viewed as being opposite in some ways, in that the connection to home is a promoter due to the connection to family and support, whereas independence and Galway potentially offer students a new sense of space and freedom from family and the related responsibilities. This potentially speaks to the students needing a similar sense of support they receive from their home environments, which could be interpreted as a connection to a person or mentor within the higher education system while they enjoy their new-found independence. This student developed data needs further exploration to understand these promoters more fully.

In Study 3, six priority barriers were also identified by the students. Being on the “wrong course”, “friends/loneliness”, “money”, “academic stress”, and “accommodation” in line with their acknowledgement as important factors for the student experience and thus, persistence in previous research (Brooker et al., 2017; MAP-Works™ 2014). The students identified difficulty “adapting to college life” as a barrier, which can be linked with the knowledge from the literature that student preparedness and or readiness for college are important to the process of student persistence (Jansen & van der Meer, 2011).

Three promoters and barriers overlap in this study, namely “academic course” (both a promoter and a barrier), “social support” (promoter) or “loneliness” (barrier), and “academic support” (promoter) or “academic stress” (barrier). This convergence places extra weight on these three factors, highlighting their potential to help or hinder a student’s persistence. In addition, three student well-being constructs emerged within the student identification of barriers to persistence, identified as anxiety, stress, and substance use. Interestingly, no positive well-being construct or health behaviours were identified as a promoter of persistence. This points to the importance of first-year student mental health in agreement with international literature (Auerbach et al., 2016). In addition, the identification of well-being constructs as barriers to persistence identify the importance of the promotion and protection of student well-being during the transition to college to enable persistence.

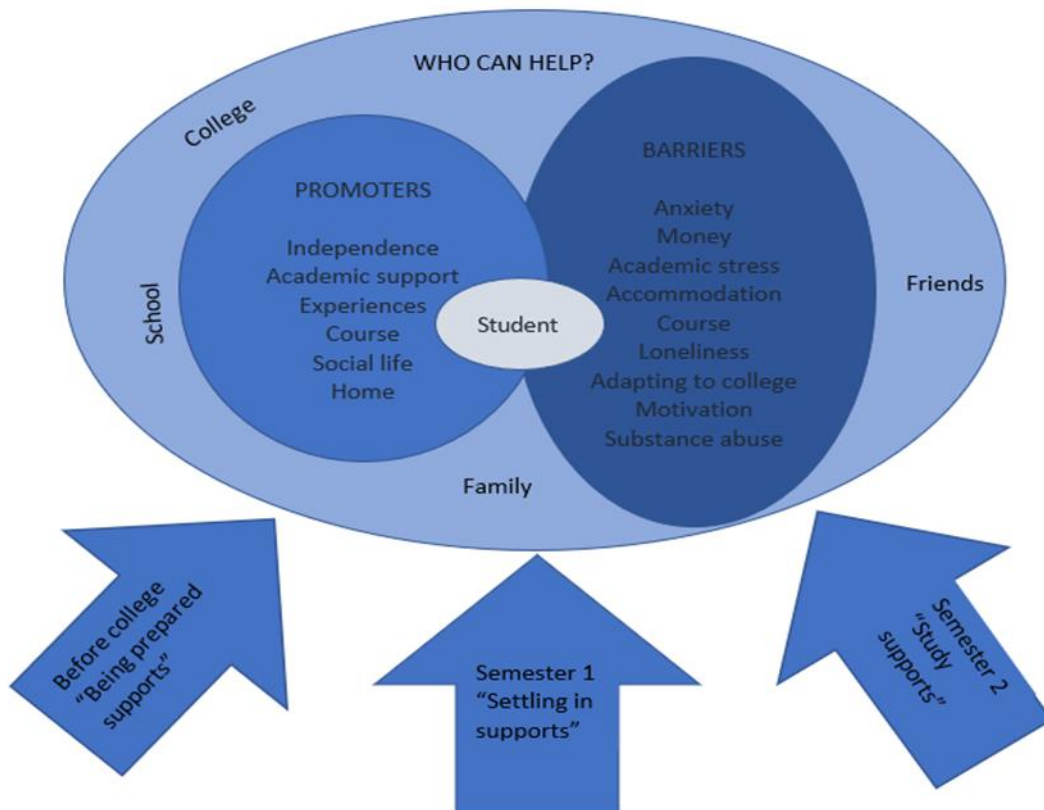
Study 3 enabled a broader inductive exploration of persistence resulting in the identification of factors that were not included in the quantitative research. These included; “independence”, “connection to home”, “money” and “accommodation”. This provides student-centred evaluation of the quantitative research studies and suggests the need to include survey constructs addressing these student priorities in future work. The emergence of a lack of “motivation” as a factor stated by the students agrees with previous research of Vincent Tinto, (2017), who defines motivation as a central element of student persistence. Thus, pointing to the students’ understanding of what persistence entails. Lack of motivation, identified by the students as a barrier requires further in-depth qualitative research to understand what this means to the students, how higher education institutions can measure, monitor and support it.

In addition to the identification of promoters and barriers, the students expressed the supports they need, personnel they need support from, and a three-pronged delivery solution, beginning in post-primary school through preparation for the transition to higher education (See Figure 9 below). The students offered many practical support solutions towards implementing the promoters and eliminating or reducing the impact of barriers. For example, some suggested solutions to the promoter and barrier facets of the academic programme itself included “options for transferring”, “make course assessments/expectations clearer”, and provide “more information on modules”. Relating to the promoter “independence” the students were able to be specific with the suggested solutions “helping students with life skills like cooking, budgeting etc.”. The promoter “friends” and the barrier “loneliness” offered solutions that complement and mirror each other, for instance “clubs and societies are

important”, “student accommodation integration”, “smaller class sizes”, “semester two orientation”, and “talking to a counsellor”.

Figure 9

Summary of Student Data



This data builds upon previous research exploring first-year student challenges (Brooker et al., 2017; Sadowski et al., 2018). In one study students were asked to rate commonly cited challenges, with time management and workload emerging as important (Brooker et al., 2017). In another study 27 students from low socio-economic backgrounds identified a range of challenges that they experienced across the academic year (e.g., personal circumstances, lack of preparedness for university study, timely access to support, course/programme difficulties) and the solutions that worked well for them (e.g., academic advisor, University support services, growing confidence in self as competent student, peer support) (Sadowski et al., 2018).

This current research adds novel findings to the literature in terms of the factors that emerged, the supports needed, the personnel identified as the “support givers” and the timeline of delivery of these supports. This knowledge builds on previous literature and provides a valuable student perspective to a primarily quantitative research area. In addition, this research offers specific, institution-focused student support solutions which are within the power of the institution of the change and a timeline for the delivery, which research has failed to do in the past. The information that emerged in Study 3 also builds on the trends that emerged in Study 1 and Study 2, with the three studies agreeing on the importance of the academic course suitability, social experiences, academic experiences and student well-being to student persistence.

The students also explored who they need support from, identifying many institutional academic and service staff as relevant to their higher education experience. However, they failed to identify themselves as potential agents of change in the process of persistence. The “who” named included schools, parents, guidance counsellors, college management, lecturers, friends, the students union, accommodation office, course coordinators, and Government agencies all having some input or control. This adds a potentially original finding to the research to date, due to the identification of “timely access to campus supports” by students as important to persistence in previous research (Sadowski et al., 2018). This finding offers two valuable pieces of knowledge. Firstly, the importance of building both student and staff capacity towards a whole-institution approach to student persistence identified within the literature (Thomas et al., 2017). Secondly, the student recognises the need for a socio-ecological approach to supporting student persistence with the inclusion of family, friends, schools, colleges in terms of teaching and service staff and functions and Government agencies as all having a role to play. Thus, this finding calls for a strengths-based approach to persistence promotion, building student capacity and confidence.

This study provides further insight into the students’ perspective of the transition to college, their practical approach to solution development, and suggestions of how to improve each student’s experience and the college environment for enhanced student supports. The identification of support solutions specifically linked to both promoters and barriers of persistence within one piece of research allows for consideration and consolidation of this student information in a new way, enabling promoters and barriers and their applied solutions to be linked within the timeline of the first year of college.

In consideration of the process and implementation of a higher education institution information gathering strategy above, the approach and finding of Study 3 are also relevant in three distinct ways. Firstly, in terms of student participation and perspective of the quantitative data to be gathered within the survey design. Secondly, in terms of partnering with higher education institutions to unpack and understand the quantitative findings by helping identify and prioritise actions that are feasible and appropriate. Thirdly, in the provision of student-institution conversations and a shared understanding of the student experience and also the institution's capacity to enact the necessary changes as required within their own unique constraints. Such a working relationship has the potential to build student and institutions capacity towards better outcomes.

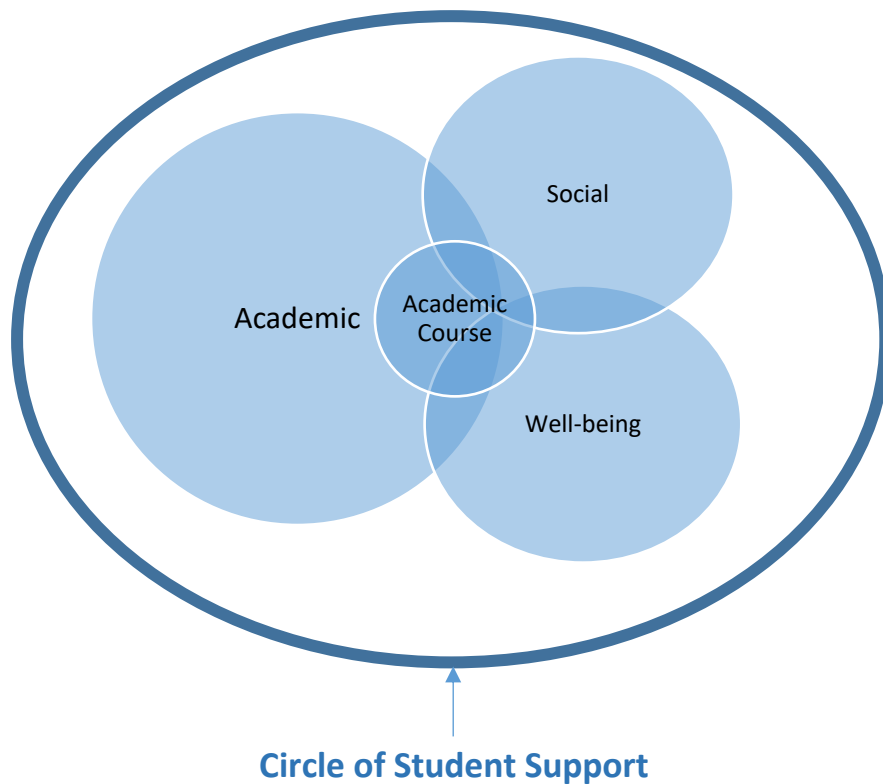
In summary, each study provided unique contributions to the extant literature, regarding the first-year student experience, first-year student persistence and first-year student well-being. Importantly, this research explored the relationship between first-year student well-being and student persistence, while also exploring a method for higher institutions to potentially implement towards gaining similar knowledge of their own specific student populations. The three studies highlighted that the first-year student experience is a process with many factors at play, some protecting and some disrupting the trajectory towards persistence. In addition, the qualitative student data identified appropriate support solutions towards making the persistence trajectory smoother with a central focus on first-year student academic course suitability, social experiences, academic experience and well-being. This research highlights the importance of the promotion of persistence and well-being in an integrated way towards student and higher education system success.

7.5 The Student Persistence Model

This research provides evidence of the connection between 3 spheres of the first-year student higher education experience towards persistence; academic, social and well-being. In consideration of this, an integrative model of student persistence is presented to help guide our understanding and conceptualisation of the findings of this research. See Figure 10.

Figure 10

Student Persistence Model



The presented Student Persistence Model theorises that once on the right academic course, first-year student persistence is impacted by each student’s ability to navigate three student-centred spheres of higher education; the academic sphere, the social sphere and the well-being sphere, within a supportive higher education environment.

7.5.1 Persistence Literacy Defined

In its definition student persistence is a student-centred, action-focused quality that allows a student to continue towards their goal of degree completion even in the face of challenges (Tinto, 2017). Thus, for persistence to be a sustained pathway there are two key considerations; the development of student persistence literacy and the development of relevant, student focused and timely supports (“Health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal health”, WHO, 1998, pp. 10). Considering this, student persistence literacy capacity building can include the development of knowledge, skills and confidence of students within a supportive

higher education environment towards persistence. The presented Student Persistence Model conceptualises 3 spheres of higher education within which to develop student persistence literacy and for these to be reinforced by a robust and continuous circle of student support within the higher education institution.

7.5.2 Academic Course

The first step towards persistence is each student being enrolled in a suitable academic course or having the opportunity to transfer to a suitable course during first year of higher education. This links with Tinto's recognition of an appropriate academic programme as important to student persistence within the literature (Tinto, 2017). Thus, student support while preparing for higher education in terms of course knowledge and selection are important. In addition, once enrolled some students need further information and course transfer options if they are unsure of their course suitability to support persistence.

7.5.3 The Academic Sphere

Previous literature identified the academic sphere to be the primary sphere to support student retention and success (Thomas, 2012). The findings of this current study concur with this due to the emergence of many academic factors as important to persistence (e.g., academic skills, study skills, supports, academic environment and academic self-efficacy). Once on the right academic course, developing persistence literacy within the academic sphere should include knowledge building on the importance of student belonging and engagement within the academic programme (Thomas, 2012; Thomas et al., 2016), academic skill development (e.g., academic writing, study skills, online learning platforms) and building academic self-efficacy (Tinto, 2017) to support persistence.

7.5.4 Social Sphere

Previous literature identified the importance of social integration as part of the longitudinal student experience towards retention (Tinto, 1993). Concurring with Tinto, this current research highlights student social experience as important for student persistence with peer connections and friends emerging as important to persistence. In addition, clubs, societies and online class chats were identified as important supports towards better social experiences by the students in this research. Developing persistence literacy within the social sphere can

have a foundation within the academic sphere (academic group assignments), the higher education social supports (e.g., club and society involvement), and also within the services of the higher education institution (e.g., accommodation allocation) to support persistence.

7.5.5 Student well-being

Student well-being emerged as an important element of student persistence in all 3 studies within this research. Student mental well-being (relating to depression and stress), physical activity, substance use and student self-rated health emerged as important factors towards persistence. The evidence for the integration of student well-being promotion and education within student persistence support is an important finding with relevance for higher education policy and practice in the future. To date internationally, student health promotion practices have remained on the fringes of higher education institutions irrelevant of the policy provision calling for a whole institution integrated approach. In addition, the literature acknowledges that well-being intervention delivered within the academic sphere as an integrated part of the curriculum is a superior approach for student health promotion or intervention (Brooker et al., 2019). *What Works?1* Student retention and success programme identified that effective interventions enhanced students' belonging and engagement (Thomas, 2010), thus, all student persistence literacy intervention should be delivered to enhance belonging and engagement. Developing student knowledge of the link between well-being and persistence, as well as health promoting, and protection knowledge and skills is an essential element of supporting better student persistence outcomes.

7.5.6 Student Supports

Within Study 3 the students identified many persistence supports, when they are needed and from whom during the first-year transition to higher education. The supports were identified as being needed in preparation for higher education, during semester 1 (settling in supports) and during semester 2 (study supports). In addition, over 50 of the identified supports were identified as being needed for the duration of the first year of college, inclusive of well-being, social and academic related supports. *What Works?1* student success and retention programme called for higher education institution change to be approached in a systematic way towards implementation "across the student lifecycle and throughout the institution at all levels, and its impact evaluated" (Thomas, 2017, p. 7). A similar systematic approach to the development and provision of persistence supports and student persistence literacy, inclusive

of an integrated well-being aspect is needed within higher education institutions to fully support their students towards better education outcomes.

7.6 Implications for Future Research, Practice, and Policy

7.6.1 Implications for Future Research

- This study was conducted with first-year students in one Irish university. Whether the results of this study apply to first-year students nationally and internationally, from each higher education setting requires further exploration.
- The students included in this study were aged between 17 and 22 years. First-year student persistence requires further exploration with inclusion of mature students, students who access college through further education, and international students.
- A gender imbalance existed within the samples for this current study, with more female students self-selecting to participate. Further research with male students to better understand their perspective of persistence and well-being is essential to avoid gender imbalance impacting researcher, policymaker and higher education knowledge and support provision.
- Future research exploring the factors included in this current study with students who did not persist past first year of higher education is warranted, given their perspective may be different.
- Further exploration of the impact of student well-being, in particular the potential impact of student mental health on persistence is warranted with its emergence in all three phases of this current research.
- Future research studies should seek out whether the application of the *What Works!* Model towards linking student persistence factors and well-being is applicable, and how this could work, inclusive of student participation.
- Cannabis use was found to significantly influence student commitment and integration in Study 2. Future scholars need to further explore and corroborate this finding (qualitatively and quantitatively).
- The emergence of self-rated health with Study 1 and Study 2 as significant requires further exploration qualitatively towards understanding how students understand this measure and how higher education institutions can promote it.

- Students as potential stakeholders towards supporting student persistence, and the omission of this in Study 3 requires further exploration. A critical question that arose was why the students did not identify as a group of people who can offer any support solutions towards persistence, looking toward other agents as having responsibility for effecting change.
- Further studies working with students exploring and developing “student persistence literacies” would be beneficial to research in this field towards the provision of actionable information for higher education institutions.

7.6.2 Implications for Policy and Practice

- On a national level, it would be insightful to utilise the methodology adopted for Study 3 to establish and implement a representative student consultation initiative within the higher education system.
- The results of a national consultation, and the vast quantitative information available would support the development of a national student experience policy, inclusive of persistence and well-being in Ireland to guide and set provision for student support and intervention. To date there is no evidence within higher education policy of a link between student well-being and student success guidance or provision.
- On a national level, policy makers should use the data from this research to support the development of a first-year transition to college support initiative targeted at senior cycle post-primary youths in line with preparation for college requirements emerging from this study. This would build on current policy provision, going beyond the focus on broader student entry routes to in-depth preparation through collaborative second-level and higher-education working.
- Funding for the establishment of a national transition coordinating committee to advise schools and higher education institutions on the implementation of such initiatives would be beneficial.
- First-year student orientation should focus on a longitudinal provision of support, drop-in clinics, course guidance and academic skills in line with the identified student support needs.
- This research has shown that there is a huge variety of challenges students face as they transition to college, but it has also shown that there are many, many solutions to

enable persistence. A first-year student initiative to share the knowledge of challenges faced and where to go for support would be beneficial.

- It is imperative that communication is open and inclusive, informing students that many students experience challenges when they start college but that supports are available and that the higher education institution is expecting students to access them. Thus, creating a supportive environment among first-year students. In addition, it would be beneficial for academic and service staff to be aware of these and have the capacity to identify and refer when needed.

7.7 Limitations of this study

- The study participants were based on a self-selection process therefore the samples are unlikely to fit the criteria for a representative sample of first-year college students.
- A gender imbalance existed within the samples for this current study, with more female students self-selecting to participate. To avoid this in future research sampling with equal representation of genders is favourable towards understanding the experiences of all genders.
- Study 1 and 2 relied on self-reported data, thus it cannot be determined if students misrepresented their responses. However, all participants were ensured complete anonymity; therefore, would have had no reason to misreport their responses within the surveys.
- Study 1 and 2 enable associations between student persistence and academic, social and well-being variables to a statistically significant degree, but causality cannot of course be concluded.
- In terms of measuring student commitment and integration there are no fixed definitions or agreements of the method of measurement within the literature, but the research strived to use measures representative of the constructs of commitment and integration and to utilise measures well represented in the literature.
- This study focused on one college so further research is needed with a larger more geographically varied sample to gain greater understanding of the issue, including the perspectives of non-traditional students, mature students, students with disabilities, international students, and first-generation students.

- Study 3 utilised a sample size reflective of other participatory research, and thus remained relatively small due to the commitment and time involved in repeated engagement with participants and the process of engaging them with tasks and discussion of shared perspectives.
- This study focuses on the promoters and barriers of first year persistence with second year students, however it would be important to hear the opinions of students who did not progress with their studies in terms of the barriers they experience, when in the timeline and supports that may have helped them overcome these.

7.8 Strengths of this study

This research is from a strengths-based, student supporting and enabling perspective of the first-year student experience, focused on student persistence. This purpose of this multimethod research was to build on national and international persistence and well-being literature quantitatively and qualitatively and student perspective of persistence literature. Firstly, to provide evidence of the important factors with the potential to impact student persistence. This research achieved this with student academic course, social and academic experience emerging as important to persistence within all three studies, confirming previous research and adding the student perspective of this to the available knowledge.

Secondly, to provide evidence of the relevance of well-being as an important factor in the process of persistence. This research achieved this with student depression, self-rated health, physical activity emerging as significant in Study 1. In addition, student depression, self-rated health, and cannabis emerged as significant in Study 2. In Study 3, student anxiety, stress and substance use also emerged as important barriers to persistence from the student perspective. This research adds to the limited literature on the importance of the inclusion of student well-being within student persistence considerations in the future.

Thirdly, provide student-derived information of the supports needed, when they are needed and who they are needed from during first year. Study 3 provided rich and detailed data of the student perspective of persistence, identifying support needs and a timeline of supports for the first time. This information has useful implications to practice, policy and student intervention within higher education institutions. In addition, this study also highlighted the importance of well-being, an unforeseen data confirmation emerging from the student perspective.

Finally, to explore an information gathering methodology utilising quantitative and qualitative approaches, inclusive of student partnership, for higher education institutions to adopt towards improving student outcomes. The utilisation of a multimethod design in the current research provided rich quantitative and qualitative data offering opportunities for confirming findings and identifying gaps in the quantitative research. In addition, the methodology overall, provides an example of an information gathering structure and quality assurance framework for higher education consideration, thus, is relevant to application in practice.

In summary, the research has practice and policy implications, contributes to the national and international literature and provides a footing for higher education advocacy in the development and monitoring of student persistence and well-being factors in a coupled way towards understanding and supporting the first-year experience.

7.9 Conclusion

This current research is the first to include a set of well-being factors alongside a set of important persistence factors with student commitment and integration as the dependent variables of focus in Ireland, and indeed internationally to the authors knowledge. The results provide a clear indication of the link between student well-being and student persistence. In addition, this current research is the first to partner with students developing, implementing and presenting their data adding to the knowledge available. The three studies within this current research all agree on the importance of the academic course suitability, academic experiences, social experiences and student well-being to student persistence. The implications of this are two-fold; the confirmation of the importance of student academic and social engagement, and to advocate for the inclusion of student well-being within the national and international priority focus on student success. This research provides a quantitative and a qualitative student-derived rationale for higher education institutions to couple their efforts to monitor and promote student persistence and well-being towards enhanced student outcomes.

References

- Abbey, A. (2002). Alcohol-Related Sexual Assault: A Common Problem among College Students. *Journal of Student Alcohol Supplement, 14*, 118-128.
<https://doi.org/10.15288/jsas.2002.s14.118>
- Adams, D. R., Meyers, S. A., & Beidas, R. S. (2016). The relationship between financial strain, perceived stress, psychosocial symptoms, and academic and social integration in undergraduate students. *Journal of American College Health, 64*, 362-370.
<https://doi.org/10.1080/07448481.2016.1154559>
- AHEAD (2019). *Numbers of Students with Disabilities Studying in Higher Education in Ireland 2017/18*. Dublin: Association of Higher Education Access and Disability.
<https://ahead.ie/userfiles/files/shop/free/Rates%202016-17%20-%20ONLINE.pdf>,
- Ahrberg, K., Dresler, M., Niedermaier, S., Steiger, A., & Genzel, L. (2012). The interaction between sleep quality and academic performance. *Journal of Psychiatric Res, 46*(12), 1618-1622. <https://doi.org/10.1016/j.jpsychires.2012.09.008>
- Aljohani, O. (2016). A Comprehensive Review of the Major Studies and Theoretical Models of Student Retention in Higher Education. *Higher Education Studies, 6*(2), 1-18.
<http://dx.doi.org/10.5539/hes.v6n2p>
- American College Health Association, (2009). American College Health Association – National College Health Assessment spring 2008 reference group data report. *Journal of American College Health, 57*(5), 477-488. <http://10.3200/JACH.57.5.477-488>
- American College Health Association, (2015). *American College Health Association- National College Health Assessment II: Reference Group Executive Summary Fall 2014*. Hanover MD: American College Health Association.
<https://www.acha.org/documents/ncha/NCHA-II%20FALL%202015%20REFERENCE%20GROUP%20EXECUTIVE%20SUMMARY.pdf>
- American College Health Association. (2021). *American College Health Association- National College Health Assessment III: Undergraduate Student Reference Group Data Report Spring 2021*. Silver Spring, MD: American College Health Association.

https://www.acha.org/documents/ncha/NCHA-III_SPRING-2021_UNDERGRADUATE_REFERENCE_GROUP_DATA_REPORT.pdf

- Amirkhan, J. H., & Kofman, Y. B. (2018). Stress overload as a red flag for freshman failure and attrition. *Contemporary Educational Psychology, 54*, 297-308. <https://doi.org/10.1016/j.cedpsych.2018.07.004>
- Anguera, M. T., Villasenor, A. B., Losada, J. L., Sánchez-Algarra, P., & Onwuegbuzie, A. J. (2018). Revisiting the difference between mixed methods and multimethods: Is it all in the name? *Quality and Quantity, 52*(6), 2757-2770. <https://doi.org/10.1007/s11135-018-0700-2>
- Ansari, W., & Stock, C. (2016). Gender Differences in Self-Rated Health among University Students in England, Wales and Northern Ireland: Do Confounding Variables Matter? *Global Journal of Health Science, 8*(11), 168. <https://doi.org/10.5539/gjhs.v8n11p168>
- Arria, A. M., Garnier-Dykstra, L. M., Caldeira, K. M., Vincent, K. B., Winick, E. R., O'Grady, K. E. (2013). Drug use patterns and continuous enrolment in college: Results from a longitudinal study. *Journal of Student Alcohol Drugs, 74*(1), 71–83. <https://doi.org/10.15288/jsad.2013.74.71>.
- Arria, A. M., Caldeira, K. M., Bugbee, B. A., Vincent, K. B., & O'Grady, K. E. (2015). The academic consequences of marijuana use during college. *Psychological Addict Behavior, 29*(3), 564–575. <https://doi.org/10.1037/adb0000108>
- Arria, A. M., Caldeira, K. M., Bugbee, B. A., Vincent, K. B., & O'Grady, K. E. (2016). Marijuana use trajectories during college predict health outcomes nine years post-matriculation. *Drug Alcohol Depend, 1*(159), 158–165. <https://doi.org/10.1016/j.drugalcdep.2015.12.009>
- Arria, A. M., Kimberly, M., Caldeira, A., Allen, H. K., Bugbee, B. A., Vincent, K. B., & O'Grady, K. E. (2017). Prevalence and incidence of drug use among college students: An 8-year longitudinal analysis. *American Journal of Drug & Alcohol Abuse, 43*(6), 711–718. <https://doi.org/10.1080/00952990.2017.1310219>
- Ashworth, P. (2003). The origins of qualitative psychology. In J. Smith (Ed.), *Qualitative psychology: A practical guide to research methods*. Thousand Oaks, CA: Sage.

- Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. D., Hwang, I., Kessler, R. C., Liu, H., Mortier, P., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Aguilar-Gaxiola, S., Al-Hamzawi, A., Andrade, L. H., Benjet, C., Caldas-de-Almeida, J. M., Demyttenaere, K., ... Bruffaerts, R. (2016). Mental disorders among college students in the World Health Organization World Mental Health Survey. *Psychological Medicine*, *46*, 2955-2970.
<http://dx.doi.org/10.1017/S0033291716001665>
- Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, O., Demyttenaere, K., Ebert, D. D., Greif Green, J., Hasking, P., Murray, E., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Stein, D. J., Vilagut, G., Zaslavsky, A. M., Kessler, R. C. (2018). WHO World Mental Health Surveys International College Student Project: Prevalence and Distribution of Mental Disorder. *American Psychological Association*, *127*(7), 623-638. <https://doi.org/10.1037/abn0000362>
- Australian Council for Educational Research. (2009). Engaging students for success; Australasian Student Engagement Report Australasian Survey of Student Engagement.
https://www.acer.org/files/AUSSE_2008_Australasian_Student_Engagement_Report.pdf
- Awadalla, S., Davies, E. B., & Glazebrook, C. (2020). A longitudinal cohort study to explore the relationship between depression, anxiety and academic performance among Emirati university students. *BMC Psychiatry*, *20*, 448. <https://doi.org/10.1186/s12888-020-02854-z>
- Babor, T., Higgins-Biddle, J., Saunders, J. B., & Monteiro, M. (2001). *AUDIT - The alcohol use disorders identification test: guidelines for use in primary care*. Geneva: World Health Organisation Department of Mental Health and Substance Abuse. WHO/MSD/MSB/01.6a.
- Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., Grube, J. W., Hill, L., Holder, H., Homel, R., Livingston, M., Osterberg, E., Rehm, J., Room, R., & Rossow, I. (2010). *Alcohol: No Ordinary Commodity: Research and Public Policy*. Second Edition Oxford University Press.

- Baik, C., Larcombe, W., & Brooker, A. (2019). How universities can enhance student mental wellbeing: the student perspective. *Higher Education Research and Development*, 38(4), 674-687. <https://doi.org/10.1080/07294360.2019.1576596>
- Baird, J., Hopfenbeck, T. H., Elwood, Caro, D., Ashmed, A. (2014). *Predictability in the Irish Leaving Certificate*. Oxford University Centre for Educational Assessment and Queens University, Belfast. <https://pure.qub.ac.uk/en/publications/predictability-in-the-irish-leaving-certificate>
- Baker, R. W., & Siryk, B. (1989). Measuring Adjustment to College. *Journal of Counselling Psychology*, 31, 179-189. <https://doi.org/10.1037/0022-0167.31.2.179>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215. <http://psycnet.apa.org/doi/10.1037/0033-295X.84.2.191>
- Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychological Association*, 44(9), 1175-1184. <https://sss.ulab.edu.bd/msj/wp-content/uploads/sites/29/2020/10/Optional-Human-agency-in-social-cognitive-theory.pdf>
- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist*, 28(2), 117-148. https://doi.org/10.1207/s15326985ep2802_3
- Banister, P., Burman, E., Parker, I., Taylor, M., & Tindall, C. (1994). *Quality methods in psychology*. Buckingham: Open University Press.
- Baum, S., Ma, J., & Payea, K. (2013). *Education Pays: The benefit of Higher Education for Individuals and Society*. USA; The College Board. <https://research.collegeboard.org/pdf/education-pays-2004-full-report.pdf>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Bayer, A. (1968). The College Drop-out: Factors Affecting Senior College Completion. *Sociology of Education*, 41(3), 305-316. <http://dx.doi.org/10.2307/2111878>

- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a casual model of student attrition. *Research in Higher Education*, 12(2), 155-187.
<https://doi.org/10.1007/BF00976194>
- Bean, J. (1982). Conceptual models of student attrition: How theory can help the institutional researcher. *New directions for institutional research*, 1982(36), 17-33.
<http://dx.doi.org/10.1002/ir.37019823604>
- Bean, J., & Metzner, B. (1985). A Conceptual Model of Non-traditional Undergraduate Student Attrition. *Review of educational research*, 55(4), 485-540.
<http://dx.doi.org/10.3102/00346543055004485>
- Bean, J. P., & Eaton, S. B. (2000). A Psychological Model of College Student Retention. In J.M. Braxton (Ed.), *Rethinking the Departure Puzzle: New Theory and Research on College Student Retention*. Nashville TN: Vanderbilt University Press.
- Bean, J., & Eaton, S. B. (2002). The psychology underlying successful retention practices. *Journal of College Student Retention*, 3(1), 73-89. <https://doi.org/10.2190/6R55-4B30-28XG-L8U0>
- Bean, J. P. (2005). Nine themes of college student retention. In A. Seidman (Ed.), *Student college retention: Formula for student success* (pp. 215–244). New York, NY: Rowman & Littlefield
- Ben-Avie, M., & Durrow, B. (2019). Malleable and Immutable Student Characteristics: Incoming Profiles and Experiences on Campus. *Journal of Assessment and Institutional Effectiveness*, 8(1-2), 22-50. <https://doi.org/10.5325/jasseinsteffe.8.1-2.0022>
- Bennett, T. H., & Holloway, K. R. (2014). Drug Misuse Among University Students in the UK: Implication for Prevention. *Substance Use & Misuse*, 49(4), 448-455
 DOI:10.3109/10826084.2013.846378
- Berger, J., & Braxton, J. (1998). Revising Tinto's Interactionalist Theory of Student Departure through Theory Elaboration: Examining the Role of Organizational Attributes in the Persistence Process. *Research in Higher Education*, 39(2), 103-119.
<http://dx.doi.org/10.1023/A:1018760513769>

- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality*. New York, N.Y: Doubleday.
- Berger, J. B., & Lyons, S. (2005). Past to present: A historical look at retention. In A. Siedman (Ed.), *College Student Retention: Formula of Student Success*. Westport, CT: Praeger Press
- Berger, J. B., & Milem, J. F. (1999). The role of student involvement and perceptions of integration in a causal model of student persistence. *Research in Higher Education*, 40(6), 641–664. doi:10.1023/A:1018708813711
- Berger, J. B., Ramirez, G., & Lyons, S. (2012). Past to present: A historical look at retention. In A. Seldman, (Ed.) *College student retention: Formula for Student Success* (pp.7-34). Lanham, MD: Rowman & Littlefield.
- Bergold, J., & Thomas, S. (2012). Participatory research methods: A methodological approach in motion. *Historical Social Research*, 37(4), 191-222.
- Bewick, B., Koutsopoulou, G., Miles, J., Slaa, E., Barkham, B. (2010). Changes in undergraduate students' psychological well-being as they progress through university. *Studies in Higher Education*, 35(6), 633-645.
<https://doi.org/10.1080/03075070903216643>
- Bexley, E., Daroesman, S., Arkoudis, S., & James, R. (2013). *University student finances in 2012: A study of the financial circumstances of domestic and international students in Australia's universities*. https://melbourne-cshe.unimelb.edu.au/_data/assets/pdf_file/0008/1714715/StudentFinances2012.pdf
- Beyers, W., & Goosens, L. (2002). Concurrent and Predictive validity of the student adaptation to college questionnaire in a sample of European Freshman Students. *Educational and Psychological Measurement*, 62(3), 527-538.
<https://doi.org/10.1177/00164402062003009>
- Blavos, A. A., Glassman, T. J., Sheu, J. J., Thompson, A., DeNardo, F., & Diehr, A. J. (2017). Marijuana and college students: A critical review of the literature. *American Journal Health and Education*, 48(3), 167–184.
<https://doi.org/10.1080/19325037.2017.1292878>

- Bong, M. (2001). Role of self-efficacy and task-value in predicting college students' course performance and future enrolment intentions. *Contemporary Educational Psychology* 26(4), 553–570. <https://doi.org/10.1006/ceps.2000.1048>
- Bourdieu, P. & Passeron, J. (1977) *Reproduction in education, society and culture*. 2nd ed., trans. R. Nice. London: Sage Publications.
- Bowman, N. A. (2010). The development of psychological well-being among first-year college students. *Journal of College Student Development*, 51(2), 180-200. <https://doi.org/10.1037/0022-0167.31.2.179>
- Bozick, R. (2007). Making it through the First Year of College: The Role of Students' Economic Resources, Employment, and Living Arrangements. *American Sociological Association*, 80(3), 261-284. <https://www.jstor.org/stable/20452709>
- Brant, R. (1990) Assessing proportionality in the proportional odds model for ordinal logistic regression. *Biometrics*, 46, 1171-1178. <https://doi.org/10.2307/2532457>
- Braxton, J. M. (2006). *Faculty professional choices in teaching that foster student success*. Washington, DC: National Postsecondary Education Cooperative.
- Braxton, J., & Lien, L. (2000). The viability of academic integration as a central construct in Tinto's interactionist theory of college student departure. In J. Braxton (Ed.), *Reworking the Student Departure Puzzle* (pp. 11-28). Nashville: Vanderbilt University Press.
- Braun, V., & Clark, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners*. Sage Publications Ltd.
- Bray, S. R., & Born, H. A. (2004) Transition to university and vigorous physical activity: implications for health and psychological well-being. *Journal of American College Health*, 52, 181-188. <https://doi.org/10.3200/JACH.52.4.181-188>
- Brooker, A., Brooker, S., & Lawrence, J. (2017). First-year students' perceptions of their difficulties. *Student Success*, 8(1), 49-62. <https://doi.org/10.5204/ssj.v8i1.352>
- Brooker, A., & Woodyatt, L. (2019). 2019 Special Issue: Psychological Wellbeing and Distress in Higher Education. *Student Success Special Issue*, 10(3), i-vi. <https://doi.org/10.5204/ssj.v10i3.1419>

- Brooker, A., McKague, M., & Phillips, L. (2019). Implementing a Whole-of-Curriculum Approach to Student Wellbeing. *Student Success*, 10(3), 55-63. <https://doi.org/10.5204/ssj.v10i3.1417>
- Brooker, A., & Vu, C. (2020). How do University Experiences Contribute to Students' Psychological Wellbeing? *Student Success*, 11(2), 99-108. <https://doi.org/10.5204/ssj.1676>
- Brower, A. M. (1992). The 'second half' of student integration: The effects of life task predominance on student persistence. *Journal of Higher Education*, 63(4), 441–462. <https://doi:10.2307/1982121>
- Brickman, P. D., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M.H. Appleby (Ed.), *Adaptation-level Theory* (pp. 287–302). New York: Academic Press.
- Bruffaerts, R., Mortier, P., Kiekens, G., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., Green, J. G., Nock, M. K., & Kessler, R.C. (2018). Mental Health problems in college freshmen: Prevalence and academic functioning. *Journal of Affective Disorders*, 1(225), 97-103. <https://doi.org/10.1016/j.jad.2017.07.044>
- Brunsdon, V., Davies, M., Shevlin, M., & Bracken, M. (2000). Why do HE Students Drop Out? A test of Tinto's model. *Journal of Further and Higher Education*, 24(3), 301-310. <http://dx.doi.org/10.1080/030987700750022244>
- Cabrera, A. F., Castaneda, M. B., Nora, A., & Hengstler, D. (1992). The convergence between two theories of college persistence. *Journal of Higher Education*, 63(2), 143-164. <https://doi.org/10.1080/00221546.1992.11778347>
- Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College Persistence, Structural Equation Modeling Test of an Integrated Model of Student Retention. *Journal of Higher Education*, 64(2), 123–139.
- Cabrera, N. L., Moner, D. D., & Milem, J. F. (2013). Can a Summer Bridge Program Impact First-Year Persistence and Performance: A Case Study of the New Start Summer Programme. *Research in Higher Education*, 54(5), 481–498. <https://doi.org/10.1007/s11162-013-9286-7>

- Caison, A. (2007). Analysis of Institutionally Specific Retention Research: A comparison between survey and institutional database methods. *Research in Higher Education*, 48(4), 435-451. <http://dx.doi.org/10.1007/s11162-006-9032-5>
- Caldeira, K. M., Arria, A. M., O'Grady, K. E., Vincent, K. B., Wish, E. D. (2008). The occurrence of cannabis use disorders and other cannabis-related problems among first-year college students. *Addict Behaviour*, 33(3), 397-411. <https://doi.org/10.1016/j.addbeh.2007.10.001>
- Caldeira, K. M., O'Grady, K. E., Vincent, K. B., Arria, A. M. (2012). Marijuana use trajectories during the post-college transition: Health outcomes in young adulthood. *Drug Alcohol Depend*, 125(3), 267–275. <https://doi.org/10.1016/j.drugalcdep.2012.02.022>
- Carmo Nicoletti, M. (2020). Revisiting Tinto's Theoretical Dropout Model. *Higher Education Studies*, 9(3), 52-64. <https://doi.org/10.5539/hes.v9n3p52>
- Carolan, M. C., & Kruger, G. B. (2011). Concerns among first year midwifery students: Towards addressing attrition rates. *Contemporary nurse*, 38(1-2), 139-147. <https://doi.org/10.5172/conu.2011.38.1-2.139>
- Carter, S. M., & Little, M. (2007). Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qualitative Health Research*, 17(10), 1316-1328. <https://doi.org/10.1177/1049732307306927>
- Carter, A. C., Brandon, K. O., & Goldman, M. S. (2010). The college and noncollege experience: a review of the factors that influence drinking behavior in young adulthood. *Journal of Student Alcohol Drugs*, 71(5), 742–50.10.15288/jsad.2010.71.742
- Caruana, E. J., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal Studies. *Journal of Thoracic Disease*, 7(11), 537–540. <https://doi.org/10.3978/j.issn.2072-1439.2015.10.63>
- Checkoway, B. (2011). What is youth participation? *Children and Youth Services Review*, 33(2), 340-345. <https://doi.org/10.1016/j.childyouth.2010.09.017>

- Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first year college student performance and adjustment. *Journal of Educational Psychology, 93*, 55-64. doi:10.1037/0022-0663.93.1.55
- Chickering, A. W., & Gamson, Z. F. (1987). *Principles of good practice for undergraduate education*. Racine, WI: Johnson Foundation.
- Choy, L. T. (2014). The strengths and weaknesses of research methodology: Comparison and complimentary between qualitative and quantitative approaches. *IOSR Journal of Humanities and Social Science, 19*(4), 99-104. <https://doi.org/10.9790/0837-194399104>
- Christensen, P., & Prout, A. (2002). Working with ethical symmetry in social research with children. *Childhood, 9*(4), 477-497. <https://doi.org/10.1177/0907568202009004007>
- Chrysikos, A., Ahmed, A., & Ward, R. (2017). Analysis of Tinto's student integration theory in first year undergraduate computing students of a UK Higher Education Institution. *International Journal of Comparative Education and Development, 19*(1). <https://doi.org/10.1108/IJCED-10-2016-0019>
- Clogg, C., & Shihadeh, E. S. (1994). *Statistical models for ordinal variables*. Thousand Oaks, California: Sage publications.
- Coates, H. (2005). The value of Student Engagement for Higher Education Quality Assurance. *Quality in Higher Education 11*(1), 25-36. <https://doi.org/10.1080/13538320500074915>
- Coates, H., Kelly, P., & Naylor, R. (2016). *New perspectives on the student experience*. Melbourne Centre for the Study of Higher Education. http://melbourne-cshe.unimelb.edu.au/__data/assets/pdf_file/0011/1862228/New-Perspectives-on-the-Student-Experience_240316_updated.pdf
- Coleman, M. D. (2010). Sunk Cost, Emotion and Commitment to Education. *Current Psychology, 29*, 246–356.
- Cole, J., Kennedy, M., & Ben-Avie, M. (2009). The role of precollege data in assessing and understanding student engagement in college. In R. M. Gonyea & G. D. Kuh (Eds.), *Using NSSE in institutional research* (pp. 55–70). San Francisco, CA: Jossey-Bass.

- Conley, C. S., Travers, L. V., & Bryant, F. B. (2013). Promoting Psychosocial Adjustment and Stress Management in First-Year College Students: The Benefits of Engagement in a Psychosocial Wellness Seminar. *Journal of American College Health, 61*(2), 75-86. <https://doi.org/10.1080/07448481.2012.754757>
- Cook-Sather, A., Bovill, C., & Felten, P. (2014). *Engaging students as partners in learning and teaching: A guide for faculty*. John Wiley & Sons.
- Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science and Medicine, 41*(12), 1667 – 1676. [https://doi.org/10.1016/0277-9536\(95\)00127-S](https://doi.org/10.1016/0277-9536(95)00127-S)
- Cownie, F. (2019). What drives students' affective commitment towards their university? *Journal of Further and Higher Education, 43*(5), 674-691. <https://doi.org/10.1080/0309877X.2017.1394988>
- Coyne, I. (2008). Children's participation in consultations and decision-making at health service level: A review of the literature. *International Journal of Nursing Studies, 45*(11), 1682-1689. <https://doi.org/10.1016/j.ijnurstu.2008.05.002>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed. ed.). Los Angeles: Sage Publications.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice, 39*(3), 124-130. https://doi.org/10.1207/s15430421tip3903_2
- Creswell, J., & Plano Clark, V. (2007). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage.
- Creswell, J., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research*: Sage publications.
- Crosling, G., Heagney, M., & Thomas, L. (2009). Improving Student Retention in Higher Education: Improving teaching and learning. *Australian Universities Review, 51*(2), 9-18.

- Cummins, R. (2010). Subjective wellbeing, homeostatically protected mood and depression: A Synthesis. *Journal of Happiness Studies*, 11, 1–17.
<http://dx.doi.org/10.1007/s10902-009-9167-0>
- Currie, C., Griebler, R., Inchley, J. Theunissen, A., Molcho, M., Samdal, O., Dür, W., & (eds.) (2010). *Health Behaviours in school-aged Children study protocol: background, methodology and mandatory items for the 2009/2010 survey*. Edinburgh: CAHRU & Vienna: LBIHPR. <http://www.hbsc.org/methods/>
- Cutrona, C. E. (1982). Transition to college: Loneliness and the process of social adjustment. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and practice* (pp. 291-309). Wiley Interscience, New York.
- Dallo, F. (2018). Predictors of self-rated health among undergraduate college students in the United States. *College Student Journal*, 52(4), 431 – 440.
- Daniels, N., Kelly, C., Molcho, M., Byrne, M., & Nic Gabhainn, S. (2014). Investigating active travel to primary school in Ireland. *Health Education*, 14(6), 501 -515.
<https://doi.org/10.1108/HE-08-2012-0045>
- Darker, C.D., Donnelly-Swift, E., Whiston, L., Moore, F., & Barry, J. (2016). Determinants of self-rated health in an Irish deprived suburban population – a cross sectional face-to-face household survey. *BMC Public Health* 16, 767.
<https://doi.org/10.1186/s12889-016-3442>
- Darlaston-Jones, D. (2007). Making connections: The relationship between epistemology and research methods. *Australian Community Psychologist*, 19(1), 19-27.
- Davoren, M., Shiely, F., Byrne, M., & Perry, I. (2015). Hazardous alcohol consumption among university students in Ireland: a cross-sectional study. *BMJ*, 5, 1-8.
<https://doi.org/10.1136/bmjopen-2014-006045>.
- Davoren, M. P., Demant, J., Shiely, F., & Perry, I. (2016). Alcohol consumption among university students in Ireland and the United Kingdom from 2002 to 2014: a systematic review. *BMC Public Health*, 16(1), 1–13. <https://doi.org/10.1186/s12889-016-2843-1>

- Davidson, C., & Wilson, K. (2013). Reassessing Tinto's Concepts of Social and Academic Integration in Student Retention. *Journal of College Student Retention: Research Theory and Practice*, 15(3), 329-346. <https://doi.org/10.2190/CS.15.3.b>
- DeBerard, M. S., Spielmans, G. I., & Julka, D. L. (2004). Predictors of Academic Achievement and Retention among College Freshman: A Longitudinal Study. *College Student Journal*, 38, 66 - 80.
- De Coninck, D., Matthijsa, K., & Luytena, P. (2019). Subjective well-being among first-year university students: A two-wave prospective study in Flanders, Belgium. *Student Success*, 10(1), 33-45. <https://doi.org/10.5204/ssj.v10i1.642>
- de Girolamo, G., Dagani, J., Purcell, R., Cocchi, A., & McGorry, P. D. (2012). Age of onset of mental disorders and use of mental health services: Needs, opportunities and obstacles. *Epidemiology and Psychiatric Sciences*, 21, 47–57. <http://dx.doi.org/10.1017/S2045796011000746>
- Delahunty, J., & O’Shea, S. (2019). I’m happy and I’m passing. That’s all that matters: Challenging discourses of university academic success through linguistic analysis. *Language and Education*, 33(4). 302-321. <http://dx.doi.org/10.1080/09500782.2018.1562468>
- Department for Business, Innovation and Skills. (2014). *National Strategy for Access and student Success in Higher Education*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/299689/bis-14-516-national-strategy-for-access-and-student-success.pdf
- Department for Children and Youth Affairs. (2014). *Better Outcomes; Brighter Futures. The National Policy Framework for Children and Young People*. <https://www.gov.ie/en/publication/775847-better-outcomes-brighter-futures/>
- Department of Children and Youth Affairs. (2015). *National Strategy on Children and Young People’s Participation in Decision-making, 2015–2020*. <https://www.gov.ie/en/publication/9128db-national-strategy-on-children-and-young-peoples-participation-in-dec/>
- Department for Children and Youth Affairs. (2018). *Mid-term Review of Better Outcomes; Brighter Futures. The National Policy Framework for Children and Young People*.

<https://www.gov.ie/en/publication/c79614-mid-term-review-of-better-outcomes-brighter-futures/>

Department of Education and Science. (2004). *A brief description of the Irish Education System*. Communications Unit & Department of Education and Science, Dublin.

<https://www.gov.ie/en/publication/a6361d-a-brief-description-of-the-irish-education-system-2004/>

Department of Education and Skills. (2011). *National Strategy for Higher Education to 2030*.

<https://assets.gov.ie/24558/c90f9fae0a70444cbe20feeff7b55558.pdf>

Department of Education and Skills (2015). *National Access Plan for Equity of Access to Higher Education 2015-2019*. Dublin Stationery Office, Dublin.

<https://hea.ie/policy/access-policy/national-access-plan-2015-2019/>

Department of Education and Skills (2018a). *Projections of demand for full-time third level education 2018 to 2040*.

<https://www.education.ie/en/Publications/Statistics/projections/projections-of-demand-for-full-time-third-level-education-2018-2040.pdf>

Department of Education and Skills, (2018b). *Education at a glance 2018 OECD Indicators; A Country Profile for Ireland*. Government Publications, Dublin.

<https://www.education.ie/en/Publications/Statistics/International-Statistical-Reports/eag-2018-briefing-note.pdf>

Department for Further and Higher Education, Research, Innovation and Science. (2020). *National Student Mental Health and Suicide Prevention Framework 2020*.

<https://hea.ie/assets/uploads/2020/10/HEA-NSMHS-Framework.pdf>

Department of Further and Higher Education, Research, Innovation and Science. (2021). *Statement of Strategy 2021-2023*. The Stationery Office, Dublin.

<https://www.gov.ie/en/organisation-information/3f066-statement-of-strategy-2021-2023/>

Department of Health and Children (2009). *The National Guidelines on Physical Activity for Ireland*. <https://www.ncn.ie/images/GuidelinesPhysicalActivity.pdf>

- Department of Health (2013). *Healthy Ireland; A Framework for improved health and well-being 2013-2025*.
<https://www.hse.ie/eng/services/publications/corporate/hienglish.pdf>
- Department of Health, (2017) *National Youth Mental Health Taskforce Report, 2017*.
<https://www.gov.ie/en/publication/117520-national-youth-mental-health-task-force-report-2017/>
- DeWitz, J., Woolsey, M. L., & Walsh, B. (2009). College Student Retention: An Exploration of the Relationship Between Self-Efficacy Beliefs and Purpose in Life Among College Students. *Journal of College Student Development*, 50(1), 19-34.
<https://doi.org/10.1353/csd.0.0049>
- Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222-235. <https://doi:10.5502/ijw.v2i3>
- Dolphin, L., Fitzgerald, A., & Dooley, B. (2017). Risky sex behaviours among college students: The psychosocial profile. *Early Intervention in Psychiatry*, 12(6), 1203-1212. <https://doi.org/10.1111/eip.12526>
- Domecq, J. P., Prutsky, G., Elraiayah, T., Wang, Z., Nabhan, M., Shippee, N., Brito, J. P., Boehmer, K., Hasan, R., Firwana, B., Erwin, P., Eton, D., Sloan, J., Montori, V., Asi, N., Abu Dabrh, A. M., & Hassan Murad, M. (2014). Patient engagement in research: a systematic review. *BMC Health Service Research*, 14(89).
<https://doi.org/10.1186/1472-6963-14-89>
- Dooley, B., & Fitzgerald, A. (2012). *My world survey: National study of youth mental health in Ireland*. Dublin, Ireland: Headstrong & UCD School of Psychology.
<https://researchrepository.ucd.ie/handle/10197/4286>
- Dooley, B., O'Connor, B., Fitzgerald, A., & O'Reilly, A. (2019). *My world survey 2: The National study of youth mental health in Ireland*. Headstrong & UCD School of Psychology, Dublin.
http://www.myworldsurvey.ie/content/docs/My_World_Survey_2.pdf
- Dooris, M., Cawood, J., Doherty, S., & Powell, S. (2010). *Healthy Universities: Concept, Model and Framework for applying the Healthy Settings Approach within Higher Education in England. Final Project Report*. Healthy Universities, England.

https://healthyuniversities.ac.uk/wp-content/uploads/2016/10/HU-Final_Report-FINAL_v21.pdf

- Dooris, M., & Doherty, S., (2010). Healthy Universities: current activity and future directions-findings and reflections from a national-level qualitative research study. *Global Health Promotion*, 17(3), 6-16. <https://doi.org/10.1177/1757975910375165>
- Donnelly, K. (2020, October 14th). Opportunity has been missed in higher education. *The Irish Independent*. <https://www.independent.ie/business/budget/opportunity-has-been-missed-in-higher-education-39622031.html>
- Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of Clinical Psychology*, 62(10), 1231- 1244. <http://dx.doi.org/10.1002/jclp.20295>
- Education Advisory Board. (2016) *How Late Is Too Late? Myths and Facts about the Consequences of Switching College Majors*. Education Advisory Board: Washington, DC. <https://www.luminafoundation.org/wp-content/uploads/2017/08/how-late-is-too-late.pdf>
- Eivers, E., Flanagan, R., & Morgan, M. (2002). *Non-completion in institutes of Technology: An investigation of preparation, attitudes and behaviours among first year students*. Educational Research Centre, Ireland. <http://www.erc.ie/documents/non-completionit02.pdf>
- Etikan, I., Abubakar Musa, S., Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Elliott, R., Fischer, C. T., & Rennie, D. L. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology*, 38(3), 215-229. <http://doi.org/10.1348/014466599162782>.
- Farren, S. (2002). *The Politics of Irish Education, 1920-65*. Institute of Irish Studies, Queen's University, Belfast. ISBN 0853895953.
- Feldman, K. A., & Newcomb, T. M. (1969). *The impact of college on students*. Jossey-Bass.

- Fiori, K.L., & Consedine, N. (2013). Positive and negative social exchanges and mental health across the transition to college: Loneliness as a mediator. *Journal of Social and Personal Relationships*, 30(7), 920-941. <https://doi.org/10.1177/0265407512473863>
- Foubert, J. D. & Grainger, L. U. (2006). Effects of Involvement in Clubs and Organizations on the Psychosocial Development of First Year and Senior College Students. *NASPA Journal*, 43(1), 166 – 182. <https://doi.org/10.2202/1949-6605.1576>
- Garcia, D., Jimmefors, A., Mousavi, F., Adrianson, L., Rosenberg, P., & Archer, T. (2015). Self-regulatory mode (locomotion and assessment), well-being (subjective and psychological), and exercise behavior (frequency and intensity) in relation to high school pupils' academic achievement. *PeerJ*, 3(e847). <http://dx.doi.org/10.7717/peerj.847>
- Gaultney, J. F. (2016). Risk for sleep disorder measured during students' first college semester may predict institutional retention and grade point average over a 3-year period, with indirect effects through self-efficacy. *Journal of College Student Retention: Research, Theory & Practice*, 18(3), 333-359. <https://doi.org/10.1177/1521025115622784>
- Gavin, A., Költő, A., Kelly, C., Molcho, M., & Nic Gabhainn, S. (2021). *Trends in Health Behaviours, Health Outcomes and Contextual Factors between 1998-2018: findings from the Irish Health Behaviour in School-aged Children Study*. Dublin: Department of Health. <http://www.nuigalway.ie/hbsc/hbsctrends/>
- Gellin, A. (2003). The effect of undergraduate student involvement on critical thinking: A meta-analysis of the literature 1991-2000. *Journal of college student development*, 44(6), 746-762. <https://doi.org/10.1353/csd.2003.0066>
- Georg, W. (2009). Individual and institutional factors in the tendency to drop out of higher education: a multilevel analysis using data from the Konstanz Student Survey. *Studies in Higher Education*, 34(6), 647-661. <https://doi.org/10.1080/03075070802592730>
- Georgsson, M., & Staggers, N. (2016). *A practical method for data handling in multi-method usability research studies*. *Studies in Health Technology and Informatics*, 228, 302 – 306. <https://doi.org/10.3233/978-1-61499-678-1-302>
- Gergen, K. (1999). *An invitation to social construction*. London: Sage.

- Gilbert, S. P., & Weaver, C. C. (2010). Sleep quality and academic performance in university students: a wake-up call for college psychologists. *Journal of College Student Psychotherapy*, 24(4), 295-306. <https://doi.org/10.1080/87568225.2010.509245>
- Gill, B., Ramjan, L., Koch, J., Dlugon, E., Andrew, S., & Salamonson, Y. (2011). A standardised orientation program for first-year undergraduate students in the College of Health and Science at UWS. A practice report, *The International Journal of First year in Higher Education*, 2(1), 63-69. <https://doi.org/10.5204/intjfyhe.v2i1.48>
- Giusta, M. D., Fernandea, A., & Jewell, S. (2017). *Happy at University? Student Well-being and the Value of Higher Education*. Economics Discussion Papers em-dp2017-01, Department of Economics, University of Reading.
- Goodman, J., Schlossberg, N. K., & Anderson, M. L. (2006). *Counselling adults in transition: Linking practice with theory*. (3rd ed.). New York: Springer Publishing Company.
- Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence*, 13(1), 21–43. <https://doi.org/10.1177/0272431693013001002>
- Gopalan, M., & Brady, S. T. (2019). College Students' Sense of Belonging: A National Perspective. *Educational Researcher*, 49(2), 134–137. <https://doi.org/10.3102/0013189X19897622>
- Gore, P. (2006). Academic self-efficacy as a predictor of college outcomes: Two incremental validity studies. *Journal of Career Assessment*, 14(1), 92-111. <http://dx.doi.org/10.1177%2F1069072705281367>
- Government of Ireland. (1959). *Report of the Commission on Accommodation Needs of the Constituent Colleges of the National University of Ireland*. Dublin: Stationery Office.
- Graham, M. J., Frederick, J., Byars-Winston, A., Hunter, A. B., & Handelsman, J. (2013). Increasing Persistence of College Students in STEM. *Education Science*, 341(6153), 1455–1456. <https://doi.org/10.1126/science.1240487>
- Grama, B. (2018). The Student Adaptation to College Questionnaire (SACQ) for use with Romanian students. *Psihologia Resurselor Umane Revista Asociației de Psihologie Industrială și Organizațională*, 16(1), 16–26.

- Greene, J. C. (2015). Preserving distinctions within the multimethod and mixed methods research merger. In S. N. Hesse-Biber & R. B. Johnson (Eds.), *The Oxford handbook of multimethod and mixed methods research inquiry* (pp. 606–615). Oxford: Oxford University Press.
- Grizzle, J., & McNeill, M. (2007). Linking Health to Academic Success and Retention. *Spectrum*, 20-24. <https://doi:10.1002/2327-6924.12345>
- Guba, E. G. (1990). *The paradigm dialog*. Sage Publications, Inc.
- Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*: Sage Publications, Inc.
- Guest, G., Namey, E., McKenna, K. (2017). How Many Focus Groups Are Enough? Building an Evidence Base for Nonprobability Sample Size. *Field Methods*, 29(1), 3-22. <https://doi.org/10.1177/1525822X16639015>
- Habley, W. R., Bloom, J. L., & Robbins, S. (2012). *Increasing Persistence: Research-based Strategies for College Student Success*. Wiley.
- Hackett, G., Betz, N. E., Casas, J. M., & Rocha-Singh, I. A. (1992). Gender, ethnicity, and social cognitive factors predicting the academic achievement of students in engineering. *Journal of Counselling Psychology*, 39(4), 527–538. <https://doi.org/10.1037/0022-0167.39.4.527>
- Hagedorn, S. L. (2005). How to define retention: A new look at an old problem. Paper sponsored by the Transfer and Retention of Urban Community College Students Project (TRUCCS) funded by the Lumina Foundation (Grant # 1415). <https://eric.ed.gov/?id=ED493674>
- Hair, J. F. (2006). *Multivariate data analysis*: Pearson Education India.
- Hall, B. L. (1992). From margins to center? The development and purpose of participatory research. *The American Sociologist*, 23(4), 15-28. <https://doi.org/10.1007/BF02691928>
- Ham, L. S., & Hope, D. A. (2003). College students and problematic drinking: a review of the literature. *Clin Psychol Rev*, 23(5), 719–59.10.1016/S0272-7358(03)00071-0
- Hammersley, M. (2008). Troubles with triangulation. In: Bergman, Manfred Max (Eds.), *Advances in Mixed Methods Research*. (pp. 22–36). London: Sage.

- Hannon, O., Smith, L., & Lã, G. (2017). Success at University: The Student Perspective. *Success in Higher Education*, 257-268. Springer.
- Harackiewicz, J. M., Barron, K. E., Tauer, J. M., & Elliot, A. J. (2002). Predicting success in college: A longitudinal study of achievement goals and ability measures as predictors of interest and performance from freshman year through graduation. *Journal of Educational Psychology*, 94(3), 562–575. <https://doi.org/10.1037/0022-0663.94.3.562>
- Hardeman, R. R., Przedworski, J. M., Burke, S. E., Burgess, D. J., Phelan, S. M., Dovidio, J. F., Nelson, D., Rockwood, T., & van Ryn, M. (2015). Mental well-being in first year medical students: A comparison by race and gender. *Journal of Racial and Ethnic Health Disparities*, 2(3), 403-413. <https://doi.org/10.1007/s40615-015-0087-x>
- Hart, R. (1992). *Children's Participation: From Tokenism to Citizenship*. UNICEF United Nations Children's Fund. <https://www.unicef-irc.org/publications/100-childrens-participation-from-tokenism-to-citizenship.html>
- HEA & NCCA. (2011, September, 21st). *Entry to Higher Education in Ireland in the 21st Century* [Discussion Paper]. NCCA / HEA Seminar, Dublin, Ireland.
- Health Service Executive. (2011). *Health Promotion Strategic Framework: Main Report*. HSE, Ireland. <http://hdl.handle.net/10147/228940>
- Headey, B. W., & Wearing, A. J. (1989). Personality, life events and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57, 731–739.
- Herzlich, C. (1973). *Health and Illness – A social psychological analysis*. London: Academic Press.
- Hesse-Biber, S. (2010). Qualitative approaches to mixed methods practice. *Qualitative Inquiry* 16(6), 455-468. <https://doi.org/10.1177/1077800410364611>
- Heaton-Shrestha, C., May, S., & Burke, L. (2009). Student retention in higher education: what role for virtual learning environments? *Journal of Further and Higher Education*, 33(1), 83-92. <https://doi.org/10.1080/03098770802645189>
- Heubelin, U. (2014). Student drop-out from German higher education institutions. *European Journal of Education*, 49(4), 497-513. <https://doi.org/10.1111/ejed.12097>

- Hicks, T., & Heastie, S. (2008). High School to College Transition: A Profile of the Stressors, Physical and Psychological Health Issues That Affect the First Year On-Campus College Student. *Journal of cultural diversity*, 15(3), 143-147.
- Higgins, C., Lavin, T., & Metcalfe, O. (2008). *Health Impacts of Education*. Institute of Public Health, Ireland.
<https://www.publichealth.ie/files/file/Health%20Impacts%20of%20Education.pdf>
- Higher Education Authority. (2008). *National Plan for Equity of Access to Higher Education*. National Office of Equity of Access to Higher Education.
<https://hea.ie/assets/uploads/2017/06/National-Plan-for-Equity-of-Access-to-Higher-Education.pdf>
- Higher Education Authority. (2013). *Supporting a Better Transition from Second Level to Higher Education: Key Directions and Next Steps*. Department of Education and Skills, Dublin. <https://hea.ie/resources/publications/supporting-a-better-transition-from-second-level-to-higher-education-implementation-next-steps/>
- Higher Education Authority. (2015a). *The Irish Survey of Student Engagement Results from 2015*. <https://studentsurvey.ie/sites/default/files/2019-10/ISSE-Report-2015-final.pdf>
- Higher Education Authority. (2015b). *Supporting a Better Transition from Second Level to Higher Education: Implementation and Next Steps*. Department of Education and Skills, Dublin. <https://hea.ie/resources/publications/supporting-a-better-transition-from-second-level-to-higher-education-implementation-next-steps/>
- Higher Education Authority (2016a). *A study of progression in Higher Education 2012/2013 2013/2014*. Dublin: Higher Education Authority.
<https://hea.ie/assets/uploads/2017/06/A-Study-Of-Progression-in-Irish-Higher-Education-201213-201314.pdf>
- Higher Education Authority. (2016b). *System Performance Framework 2016-2018*.
<https://hea.ie/assets/uploads/2018/01/higher-education-system-performance-framework-2018-2020.pdf>
- Higher Education Authority. (2018a). *Key facts and figures; Higher Education 2016/2017*.
<https://hea.ie/assets/uploads/2018/02/HEA-Key-Facts-And-Figures-2016-17-FINAL.pdf>

- Higher Education Authority. (2018b). *Progress Review of the National Access Plan and Priorities to 2021*. <https://hea.ie/policy/access-policy/progress-review-of-the-national-access-plan-and-priorities-to-2021/>
- Higher Education Authority. (2018c). *Access statistics Summary Report*. <https://hea.ie/policy/access-policy/access-statistics-summary/>
- Higher Education Authority. (2018d). *Report on the Programme for Access to Higher Education (PATH) Seminar*. Department of Education and Skills, Dublin. https://hea.ie/assets/uploads/2019/05/PATH_seminar_report_Final.pdf
- Higher Education Authority. (2019). *An analysis of completion in Irish Higher Education: 2007/2008 entrants*. <https://hea.ie/assets/uploads/2019/02/HEA-Analysis-of-Completion-in-Irish-Higher-Education-Report-Release.pdf>
- Higher Education Authority. (2020a). *Irish Survey of Student Engagement National Report 2020*. <https://hea.ie/assets/uploads/2020/11/Student-Survey-Digital-Report-2020.pdf>
- Higher Education Authority (2020b). *A study of progression in Higher Education 2015/2016 2016/2017*. <https://hea.ie/assets/uploads/2020/10/Progression-Report-October-2020-Final-301020.pdf>
- Higher Education Research Institute. (2016). *College Senior Survey*. <https://ucla.app.box.com/v/CSS-Survey-Instrument>
- Hingson, R., Wenxing, Z., & Smyth, D. (2017). Magnitude and Trends in Heavy Episodic Drinking, Alcohol-Impaired Driving, and Alcohol-Related Mortality and Overdose Hospitalizations Among Emerging Adults of College Ages 18–24 in the United States, 1998–2014. *Journal of Studies on Alcohol and Drugs*, 78(4), 540-548. <https://doi.org/doi: 10.15288/jsad.2017.78.540>.
- Hinkle, D. E., & Wiersma, S. G. (2003). *Applied Statistics for the Behavioural Sciences*. 5th Edition, Houghton Mifflin, Boston.
- Hinton, L. (2007). Causes of attrition in first year courses in science foundation courses and recommendations for intervention. *Studies in Learning, Evaluation, Innovation and Development*, 4(2), 13-26.
- Hinton, P., McMurray, I., & Brownlow C. (2004). *SPSS explained*. Routledge, London, UK.

- Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational Research Review, 17*, 63-84.
<http://dx.doi.org/10.1016/j.edurev.2015.11.002>
- Hooker, S.A., Punjabi, A., Justesen, K., Boyle, L., & Sherman, M.D. (2018). Encouraging Health Behavior Change: Eight Evidence-Based Strategies. *Family Practice Management, 25*(2), 31-36.
- Hossler, D. (1984). *Enrolment Management: An Integrated Approach*. College Board Publications, New York.
- 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.
<https://doi.org/10.1080/0309877X.2014.971109>
- Hunter, A., & Brewer, J. (2015). Designing multimethod research. In S.N. Hesse-Biber & R.B. Johnson (Eds.), *The Oxford handbook of multimethod and mixed methods research inquiry* (pp. 185-205). Oxford: Oxford University Press.
- Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *The Journal of Adolescent Health, 46*, 3–10.
<http://dx.doi.org/10.1016/j.jadohealth.2009.08.008>
- Hurtado, S., Han, J. C., Sáenz, V. B., Espinosa, L. L., Cabrera N. L., & Cerna, O. S. (2007). Predicting transition and adjustment to college: Biomedical and behavioral science aspirants' and minority students' first year of college. *Research in Higher Education, 48*, 841–887. <https://doi.org/10.1007/s11162-007-9051-x>
- IBM Corp. (2017). *IBM SPSS Statistics for Windows, Version 25.0*. IBM Corp, Armonk, NY.
- Illback, R. J., Bates, T., Hodgens, C., Galligan, K., Smith, P., Sanders, D., & Dooley, B. (2010). Jigsaw: engaging communities in the development and implementation of youth mental health services and supports in the Republic of Ireland. *Journal of Mental Health, 19*(5), 422-435. <https://doi.org/10.3109/09638231003728141>
- INVOLVE. (2016). *Involving children and young people in research: Top tips and essential key issues for researchers*. INVOLVE, Eastleigh. <https://www.invo.org.uk/wp-content/uploads/2016/01/involvingcyp-tips-keyissues-January2016.pdf>

- IPSOS, (2009). *Social Grade A Classification Tool; Bite Sized Thought Piece*. IPSOS, UK.
https://www.ipsos.com/sites/default/files/publication/6800-03/MediaCT_thoughtpiece_Social_Grade_July09_V3_WEB.pdf
- Jansen, E., & van der Meer, J. (2011). Ready for university? A cross-national study of students' perceived preparedness for university. *The Australian Educational Researcher*, 39, 1-16. <https://doi.org/10.1007/s13384-011-0044-6>
- Stanojevic Jerkovic, O., Sauliune, S., Šaumskas, L., Birt, C., Kersnik, J. (2017). Determinants of self-rated health in elderly populations in urban areas of Slovenia, Lithuania and UK: findings of the EURO-URHIS 2 survey. *European Journal of Public Health*, 27(2), 74–9.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007a). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
<https://doi.org/10.1177/1558689806298224>
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2007b). *Monitoring the Future national survey results on drug use, 1975–2006: Volume II, College students and adults ages 19–45* (NIH Publication No. 07-6206). National Institute on Drug Abuse, Bethesda, MD.
https://deepblue.lib.umich.edu/bitstream/handle/2027.42/137787/vol2_2006.pdf?sequence=1
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2010). *Monitoring the future: National survey results on drug use: 1975–2009: Volume II: College students and adults ages 19–50*. National Institute on Drug Abuse, Bethesda, MD.
<https://files.eric.ed.gov/fulltext/ED514367.pdf>
- Jones, R. (2008). *Student retention and success: A synthesis of research*. Higher Education Academy, York. <https://www.advance-he.ac.uk/knowledge-hub/student-retention-and-success-synthesis-research>
- Kahu, E. R., & Nelson, K. (2017). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher Education Research and Development*, 37(4), 1-14. <https://doi.org/10.1080/07294360.2017.1344197>

- Kahu, E., Nelson, K., & Picton, C. (2017). Student interest as a key driver of engagement for first year students. *Student Success*, 8(2), 55-66. <https://doi.org/10.5204/ssj.v8i2.379>
- Ketonen, E. E., Haarala-Muhonen, A., Hirsto, L., Hanninen, J. J., Wahala, K., & Lonka, K. (2016). Am I in the right place? Academic engagement and study success during the first years at University. *Learning and Individual differences*, 50, 141-148. <https://doi.org/10.1016/j.lindif.2016.08.017>
- Kerby, M. (2015). Toward a New Predictive Model of Retention in Higher Education: An Application of Classical Sociological Theory. *Journal of College Student Retention* 17(2), 138–161. <https://doi.org/10.1177/1521025115578229>.
- Kesby, M., Kindon, S., & Pain, R. (2005). Participatory' approaches and diagramming techniques. In R. Flowerdew, & D. Martin (Eds.), *Methods in Human Geography: a guide for students doing a research project* (Second Edition ed., pp. 144-166). Pearson Education.
- Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustün, T. B. (2007). Age of onset of mental disorders: A review of recent literature. *Current Opinion in Psychiatry*, 20, 359–364. <http://dx.doi.org/10.1097/YCO.0b013e32816ebc8c>
- Kohn, C., Saleheen, H., Borrup, K., Rogers, S., & Lapidus, G. (2014). Correlates of drug use and driving among undergraduate college students. *Traffic Injury Prev*, 15(2), 119–124. <https://doi.org/10.1080/15389588.2013.803221>
- Kraemer, B. (1997). The academic and social integration of Hispanic students into college. *The Review of Higher Education*, 20(2), 163–179.
- Krause, K. L. D. (2011). Transforming the learning experience to engage students. In L. Thomas & M. Tight (Eds.), *Institutional Transformation to Engage a Diverse Student Body* (pp. 199-212). Emerald, Bingley.
- Krumrei-Mancuso, E. J., Newton, F. B., Kim, E., & Wilcox, D. (2013). Psychosocial factors predicting first-year college student success. *Journal of College Student Development*, 54(3), 247-266. <https://doi:10.1353/csd.2013.0034>
- Kuh, G. (2007). How to help students achieve. *Chronicle of Higher Education*, 53(41), B12. <https://www.chronicle.com/article/how-to-help-students-achieve/>

- Kuh, G. D. (2009) What Student Affairs Professionals Need to Know about Student Engagement. *Journal of College Student Development*, 50(6), 683–706.
[https://doi.org/ 10.1353/csd.0.0099](https://doi.org/10.1353/csd.0.0099)
- Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the Effects of Student Engagement on First-Year College Grades and Persistence. *The Journal of Higher Education*, 79(5), 540-563. <https://doi.org/10.1353/jhe.0.0019>
- Kuh, G. D., Hu, S., & Vesper, N. (2000). They shall be known by what they do: An activities-based typology of college students. *Journal of College Student Development* 41, 228–244.
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago, IL. The University of Chicago Press.
- Keating, X. D., Jianmin, D., Castro, P. J., Dwan, M. B. (2005). A Meta Analysis of College Students Physical Activity Behaviours. *Journal of American College Health*, 54(2), 116. <https://doi.org/10.3200/JACH.54.2.116-126>
- Kypri, K., Cronin, M., & Wright, C. S. (2005). Do university students drink more hazardously than their non-student peers? *Addiction*, 100, 713–14.
<https://doi.org/10.1111/j.1360-0443.2005.01116.x>
- Lakhal, S., Mukamurera, J., Bédard, M. E., Heilporn, G., & Chauret, M. (2020). Features fostering academic and social integration in blended synchronous courses in graduate programs. *International Journal of Educational Technology in Higher Education*, 17(5), 1-22. <https://doi.org/10.1186/s41239-020-0180-z>
- Larsen, M., Sommersel, H., Larsen, M. (2013). Evidence of dropout phenomenon at university. Department for Education, Danish Clearinghouse for Educational Research.
https://edu.au.dk/fileadmin/edu/Udgivelser/Clearinghouse/Review/Evidence_on_dropout_from_universities_brief_version.pdf
- Lavrakas, P. (2008). Convenience Sampling. In *Encyclopaedia of Survey Research Methods*. Sage Publications. Retrieved May 13th 2021, from,
<https://dx.doi.org/10.4135/9781412963947.n105>

- Lent, R. W., Brown, S. D., & Larkin, K. C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. *Journal of Counseling Psychology* 33(3), 265–269. <https://doi.org/10.1037/0022-0167.33.3.265>
- Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., Naudeau, S., Jelicic, H., Alberts, A., Ma, L., Smith, L. M., Bobek, D. L. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth grade adolescents: Findings from the firstwave of the 4-H Study of Positive Youth Development. *Journal of Early Adolescence*, 25, 17-71. <https://doi.org/10.1177/0272431604272461>
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based Dentistry*, 7(1), 24-25. <https://doi.org/10.1038/sj.ebd.6400375>.
- LGA. (2016). *Health in All Policies. A manual for local government*, UK. <https://www.local.gov.uk/publications/health-all-policies-manual-local-government>
- Lincoln, Y. S., & Guba, E. G. (1985). Establishing trustworthiness. *Naturalistic inquiry*, 289, 331.
- Longwell-Grice, R., & Longwell-Grice, H. (2007). Testing Tinto: How Do Retention Theories Work for First-Generation, Working-Class Students? *Journal of College Student Retention: Research, Theory and Practice*, 9(4), 407-420. <http://dx.doi.org/10.2190/CS.9.4.a>
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety & Stress Scales* (2nd ed.) Psychology Foundation, Sydney.
- Lowe, H., & Cook, A. (2003). Mind the Gap: Are students prepared for higher education? *Journal of Further and Higher Education*, 27(1), 53-76. <https://doi.org/10.1080/03098770305629>
- Lundy, L. (2007). Voice is not enough: Conceptualising Article 12 of the United Nations Convention on the Rights of the Child. *British Educational Research Journal*, 33(6), 927-942. <https://doi.org/10.1080/01411920701657033>
- Makara-Studzinska, M., Urbanska, A. (2007). Alcohol consumption patterns among young people from rural areas of Lublin province. *Ann Agric Environ Med*, 14(1), 45–49.

- Malterud, K. (2001). Qualitative research: Standards, challenges, and guidelines. *The Lancet*, 358(9280), 483-488. [https://doi.org/10.1016/S0140-6736\(01\)05627-6](https://doi.org/10.1016/S0140-6736(01)05627-6)
- Mannan, M. A. (2001). An assessment of the academic and social integration as perceived by the students in the University of Papua New Guinea. *Higher Education*, 41(3), 283-298. <http://dx.doi.org/10.1023/A:1004186830125>
- Mannay, D., Staples, E., & Edwards, V. (2017). Visual methodologies, sand and psychoanalysis: Employing creative participatory techniques to explore the educational experiences of mature students and children in care. *Visual Studies*, 32(4), 345-358. <https://doi.org/10.1080/1472586X.2017.1363636>
- MAP-Works™ (2014). *The Foundation of MAP-Works Research and Theoretical Underpinnings of MAP-Works*. EBI MAP-Works 2014. <https://www.asc.dso.iastate.edu/sites/default/files/mapworks/MW%20Foundations%20-%202014.pdf>
- Martinez, J. A., Sher, K. J., & WoodIs, P. K. (2008). Heavy Drinking Really Associated With Attrition From College? The Alcohol–Attrition Paradox. *Psychol Addict Behav*, 22(3): 450–456. <https://doi.org/10.1037/0893-164X.22.3.450>
- Maynooth University. (2020). Maynooth University Handbook [Handbook]. https://www.maynoothuniversity.ie/sites/default/files/assets/document/FINAL%20Undergraduate%20Handbook%202020%20High-Spreads-WEB_0.pdf
- Maymon, R., Hall, N. C., & Harley, J. M. (2019). Supporting first-year students during the transition to higher education: The importance of quality and source of received support for student well-being. *Student Success*, 10(3), 64-75. <https://doi.org/10.5204/ssj.v10i3.1407>
- McArthur, L. H., & Raedeke, T. D. (2009). Race and Sex Differences in College Student Physical Activity Correlates. *American Journal of Health Behavior*, 33(1), 80 – 90. <https://doi.org/10.5993/ajhb.33.1.8>.
- McCabe, S. E. (2002). Gender differences in collegiate risk factors for heavy episodic drinking. *Journal of Student Alcohol*, 63(1), 49-56.
- McCluskey, T., Weldon, J., Smallridge, A. (2019). Re-building the first-year experience one block at a time. *Student Success*, 10(1), 1-15. <https://doi.org/10.5204/ssj.v10i1.1148>

- McCubbin, I. (2003). An examination of criticisms made of Tinto's 1975 student integration model of attrition. 1-12. <http://www.psy.gla.ac.uk/~steve/localed/icubb.pdf>
- McKinlay, A. (2011). Longitudinal Research. In: Goldstein S., Naglieri J.A. (eds) *Encyclopaedia of Child Behavior and Development*. Springer, Boston, MA. https://doi.org/10.1007/978-0-387-79061-9_1685
- McLafferty, M., Lapsley, C. R., Ennis, E., Armour, C., Murphy, S., Bunting, B. P. Bjourson, A. J., Murray, E. K., O'Neill, S. M. (2017). Mental health, behavioural problems and treatment seeking among students commencing university in Northern Ireland. *PLOS ONE*, 13(12), 1-14. <https://doi.org/10.1371/journal.pone.0188785>
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An Ecological Perspective on Health Promotion Programs. *Health Education Quarterly*, 15(4), 351-377. <https://doi.org/10.1177/109019818801500401>
- Mechur Karp, M., Hughes, K. L., O'Gara, L., (2008). An exploration of Tinto's integration framework for community college students [Working Paper No. 12]. Community College Research Centre, Columbia University. <https://files.eric.ed.gov/fulltext/ED501335.pdf>
- Meeuwisse, M., Severiens, S. E., & Born, M. (2010). Learning environment, interaction, sense of belonging and study success in ethnically diverse student groups. *Research in Higher Education*, 51, 528-545. <http://dx.doi.org/10.1007/s11162-010-9168-1>
- Melkas, T. (2013). Health in all policies as a priority in Finnish health policy: a case study on national health policy development. *Scand J Public Health*, 41(11), 3-28. <https://doi.org/10.1177/1403494812472296>
- Mercer-Mapstone, L., Dvorakova, S. L., Matthews, K. E., Abbot, S., Cheng, B., Felten, P., Knorr, K., Marquis, E., Shammass, R., Swaim, K. (2017). A Systematic Literature Review of Students as Partners in Higher Education. *International Journal for Students as partners*, 1(1). <https://doi.org/10.15173/ijasp.v1i1.3119>
- Mikolajczyk, R. T., Sebens, R., Warich, J., Naydenova, V., Dudziak, U., & Orosova, O. (2016). Alcohol Drinking in University Students Matters for Their Self-Rated Health Status: A Cross-sectional Study in Three European Countries. *Frontiers in Public Health*, 4. <https://doi.org/10.3389/fpubh.2016.00210>

- Mikolajczyk, R.T., Brzoska, P., Maier, C., Ottova, V., Meier, S., Dudziak, U., Ilieva, S., & Ansari, W. (2008). Factors associated with self-rated health status in university students: a cross-sectional study in three European countries. *BMC Public Health* 8, 215. <https://doi.org/10.1186/1471-2458-8-215>
- Mingers, J. (2003). The paucity of multimethod research: A review of the information systems literature. *Information Systems Journal*, 13(3), 233-249. <https://doi.org/10.1046/j.1365-2575.2003.00143.x>
- Minitab 17 Statistical Software (2010). [Computer software]. State College, PA: Minitab, Inc.
- Mizusawa, T., Hochi, Y., & Mizuno, M. (2012). A Study on the Relationship between Commitment of Club Activity and Vocational Readiness among University Students *Work*, 4(1), 5756–5758. <https://doi.org/10.3233/WOR-2012-0941-5756>.
- Moore-Cherry, N., Quin, S., & Burroughs, N. (2015). *Why students leave: Findings from qualitative research into student non-completion in higher education in Ireland*. National Forum for the Enhancement of Teaching and Learning in Higher Education, Ireland. <https://www.teachingandlearning.ie/publication/why-students-leave-findings-from-qualitative-research-into-student-non-completion-in-higher-education-in-ireland/>
- Morean, M. E., DeMartins, K. S., Leeman, R. F., Pearlson, G. D., Anticevic, A., Krishnan-Sarin, J. H., & O'Malley, S. S. (2014). Psychometrically Improved, Abbreviated Versions of Three Classic Measures of Impulsivity and Self-Control. *Psychological Assessment*, 26(3), 1003-1020. <https://doi.org/10.1037/pas0000003>
- Morgan, D. L. (2013). *Integrating qualitative and quantitative methods: A pragmatic approach*: Sage publications.
- Morse, J. M. (2003). Principles of mixed methods and multimethod research design. In A. Tashakkori A. & C. Teddlie (Ed.), *Handbook of mixed methods in social & behavioral research* (pp. 189-208). Thousand Oaks, CA: Sage.
- Morse, J. M. (2009). Mixing qualitative methods. *Qualitative Health Research*, 19(11), 1523-1524. <https://doi.org/10.1177%2F1049732309349360>

- Mortenson, T. G. (2005) Measurement of persistence. In A. Seidman (Ed.), *College student retention: Formula for student success*. Westport, CT: American Council on Education and Praeger Publishers.
- Munro, M., & Fisher, T. (2004). Leaving University early: Exploring the differences between continuing and non-continuing students. *Studies in Higher Education*, 29, 5, 617-636.
- Murphy, M. H., Murphy, N., MacDonncha, C., Woods, C., Byrne, N., Ferguson, K., & Nevill, A. M. (2015). Student Activity and Sports Study Ireland (SASSI). Student Sport Ireland. <http://www.studentsport.ie/wp-content/uploads/2016/02/SASSI-Full-Report-Without-Appendices..pdf>
- Nakajima, M. A., Dembo, M. H., & Mossler, R. (2012). Student Persistence in Community Colleges. *Community College Journal of Research and Practice*, 36, 591–613. <https://doi.org/10.1080/10668920903054931>
- Napoli, A. R., & Wortman, P. M. (1998). Psychosocial Factors Related to Retention and Early Departure of Two-Year Community College Students. *Research in Higher Education*, 39, 419-455. <https://doi.org/10.1023/A:1018789320129>
- National Forum. (2015). *Transition from second level and further education to higher education*. National Forum for the Enhancement of Teaching and Learning in Higher Education, Ireland. <https://www.teachingandlearning.ie/wp-content/uploads/NF-2015-Transition-from-Second-Level-and-Further-Education-to-Higher-Education.pdf>
- National Forum. (2019). *Understanding and Enabling Student Success in Irish Higher Education*. National Forum for the Enhancement of Teaching and Learning in Higher Education, Ireland. <https://www.teachingandlearning.ie/publication/understanding-and-enabling-student-success-in-irish-higher-education/>
- National University of Ireland, Galway. (2020). Access diploma programme guide 2020 [Course Guide]. National University of Ireland, Galway, Ireland. <http://www.nuigalway.ie/access/>
- National Youth Council of Ireland. (2018). *Youth in Europe: What next? Structured dialogue cycle VI – Consultation Phase*. Department of Children and Youth Affairs, Ireland. <https://www.youth.ie/documents/youth-in-europe-what-next-sd-cycle-vi-consultation-report-summary/>

- National Union of Students. (2018). Students and alcohol: National survey research into higher education students' relationship with alcohol 2017-2018. National Union of Students Connect, UK. <https://www.nusconnect.org.uk/resources/students-alcohol-national-survey>
- Naylor, R. (2017). First year student conceptions of success: What really matters? *Student Success*, 8(2), 9-19. <https://doi.org/10.5204/ssj.v8i2.377>
- Nelson, K., Duncan, M., & Clarke, J. (2009). Student success: The identification and support of first-year university students at risk of attrition. *Studies in Learning, Evaluation, Innovation and Development*, 6(1), 1-15. <https://eprints.qut.edu.au/28064/>
- Neuman, W. L. (2006). *Social research methods: Qualitative and quantitative approaches*. London: Pearson.
- O'Brien, C. (2020, October 13th). Budget 2021: €250 payment for third-level students for move to online learning. *The Irish Times*. <https://www.irishtimes.com/news/education/budget-2021-250-payment-for-third-level-students-for-move-to-online-learning-1.4379605>
- O'Buachalla, S. (1984). Educational Policy and the Role of the Irish Language from 1831 to 1981. *European Journal of Education*, 19(1), 75-92. <https://doi.org/10.2307/1503260>
- O'Byrne, D. (2016, January 14th). Opinion: High third level drop-out rates are due to dissatisfaction with courses not ability. *The Irish Times Opinion*. <http://www.irishtimes.com/opinion/opinion-high-third-level-drop-out-rates-are-due-to-dissatisfaction-with-courses-not-ability-1.2495749>
- O'Connell, A. (2006) Logistic regression models for ordinal response variables. Thousand Oaks: Sage publications.
- O'Connell, P. J., Clancy, D., & McCoy, S. (2006). *Who went to college in 2004? A National Survey of new entrant to Higher Education*. Higher Education Authority, Dublin. <https://hea.ie/assets/uploads/2017/06/Who-Went-to-College-in-2004-A-National-Survey-of-New-Entrants-to-Higher-Education.pdf>
- OECD. (1964). *Training of technicians in Ireland, OECD reviews of national policies for science and education*. OECD, Paris.

- OECD. (1997). *Education Policy Analysis 1997*. OECD Publishing, Paris.
<https://doi.org/10.1787/epa-1997-en>.
- O'Hara, M. C., Cunningham, A., Keighron, C., Allen, G., Caulfield, A., Duffy, C., Long, M., Mallon, M., Mullins, M., Tonra, G., Simkins, S., Hynes, L., O'Donnell, M., Byrne, M., Dinneen, S., & the D1 Now Type 1 Diabetes Young Adult Study Group. (2017). Formation of a type 1 diabetes young adult patient and public involvement panel to develop a health behaviour change intervention: the D1 Now study. *Research Involvement and Engagement*, 3(21), 1 – 16. <https://doi.org/10.1186/s40900-017-0068-9>
- O'Higgins, S., & Nic Gabhainn, S. (2010). Youth participation in setting the agenda: Learning outcomes for sex education in Ireland. *Sex Education*, 10(4), 387 – 403.
<https://doi.org/10.1080/14681811.2010.515096>
- Okanagan Charter. (2015). Okanagan Charter: An international charter for health promoting universities & colleges.
<https://open.library.ubc.ca/cIRcle/collections/53926/items/1.0132754>
- O'Keeffe, P. (2013). A sense of belonging: improving student retention. *College Student Journal*, 47(4), 605-613.
- Olufisayo John-Akinola, Y., Gavin, A., O'Higgins, S. E., & Nic Gabhainn, S. (2014). Taking part in school life: Views of children. *Health Education*, 114(1), 20-42.
<https://doi.org/10.1108/HE-02-2013-0007>
- Oseguera, L., & Rhee, B. S., (2009). Influence of Institutional Retention Climates on Student Persistence to Degree Completion: A Multilevel Approach. *Research in Higher Education*, 50(6), 546-569. <https://doi.org/10.1007/s11162-009-9134>
- Osterman, K. F. (2000) Students' need for belonging in the school community. *Review of Educational Research*, 70(3), 323–367. <https://doi.org/10.3102/00346543070003323>
- O'Sullivan, L. (October 9th, 2019). *IUA Response to Budget 2019 - State funding per student in third level not addressed by Budget* [Press Release]. Irish Universities Association.
<https://www.iua.ie/press-releases/iua-response-to-budget-2019-state-funding-per-student-in-third-level-not-addressed-by-budget-oct-9th/>
- Pain, R., & Francis, P. (2003). Reflections on participatory research. *Area*, 35(1), 46-54.

- Pascarella, E. T., & Terenzini, P. T. (1977). Patterns of student-faculty informal interaction beyond the classroom and voluntary freshman attrition. *The Journal of Higher Education*, 540-552. <http://dx.doi.org/10.2307/1981596>
- Pascarella, E. T., & Terenzini, P. T. (1980). Predicting persistence of two-year college students. *Research in Higher Education*, 51, 60–75.
- Pascarella, E. T., & Terenzini, P. T. (1983). Predicting voluntary freshman year persistence/withdrawal behavior in a residential university: A path analytic validation of Tinto's model. *Journal of Educational Psychology*, 75(2), 215. <http://dx.doi.org/10.1037/0022-0663.75.2.215>
- Pascarella, E. T., & Terenzini, P. T. (1991). *How College Affects Student; Findings and insights from twenty years of research*. San Francisco: Jossey-Bass Inc.
- Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: Mental health problems and treatment considerations. *Academic Psychiatry*, 39, 503–511. <http://dx.doi.org/10.1007/s40596-014-0205-9>
- Perkins, H. W. (2002). Surveying the damage: A review of research on consequences of alcohol misuse in college populations. *Journal of Student Alcohol Supplement*, 14, 91-100. <https://doi.org/10.15288/jsas.2002.s14.91>.
- Picton, C., Kahu, E. R., & Nelson, K. (2018). Hardworking, determined and happy: first-year students' understanding and experience of success. *Higher Education Research and Development* 37(1), 1-14. <https://doi.org/10.1080/07294360.2018.1478803>
- Pike, C. R., Schroeder, C. C., & Berry, T. R. (1997). Enhancing the educational impact of residence halls: The relationship between residential learning communities and first-year college experiences and persistence. *Journal of College Student Development*, 38, 609–621.
- Pike, G. R., Kuh, G. D., & Gonyea, R. M. (2003). The relationship between institutional mission and students' involvement and educational outcomes. *Research in Higher Education*, 44(2), 241-261. <https://doi.org/10.1023/A:1022055829783>.
- Plano Clark, V. L., & Ivankova, N. V. (2016). *Mixed methods research: A practical guide to the field*. Thousand Oaks, CA: Sage.

- Porter, S. R., & Pryor, J. (2007). The effects of heavy episodic alcohol use on student engagement, academic performance, and time use. *Journal of College Student Development, 48*(4), 455–467. <https://doi.org/10.1353/csd.2007.0042>
- Price, J. (1977). *The study of turnover*. Iowa State University Press.
- Raftery, A. E., & Hout, M. (1993). Maximally Maintained Inequality: Expansion reform and Opportunity in Irish Education 1921-75. *Sociology of Education, 66*(1), 41-62.
- Ramo, D. E., Liu, H., & Prochaska, J. J. (2012). Tobacco and marijuana use among adolescents and young adults: A systematic review of their co-use. *Clin Psychol Rev. 32*(2), 105–121. <https://dx.doi.org/10.1016%2Fj.cpr.2011.12.002>
- Ramón-Arbués, E., Gea-Caballero, V., Granada-Lopez, J. M., Juarez-Vela, R., Pellicer-Garcia, B., & Anton-Solanas, I. (2020). The Prevalence of Depression, Anxiety and Stress and Their Associated Factors in College Students. *International Journal of Environmental Research and Public Health, 17*(9), 7001. <https://dx.doi.org/10.3390%2Fijerph17197001>
- Ramsburg, L. (2007). Strive for success: A successful retention program for Associate of Science in Nursing students. *Teaching and Learning in Nursing, 2*(1), 12-16. <https://doi.org/10.1016/j.teln.2006.10.005>
- Redmond, A. (2000). *That was then, this is now: change in Ireland, 1949-1999, a publication to mark the 50th anniversary of the Central Statistics Office*. Stationery Office, Dublin. <http://edepositireland.ie/handle/2262/85926>
- Redmond, B., Quinn, S., Devitt, C., Archbold, J. (2011). *A qualitative investigation into the reasons why students exit from the first year of their programme at UCD*. University College Dublin, Ireland. <https://www.ucd.ie/t4cms/Reasons%20Why%20Students%20Leave.pdf>
- Reider, S. L., Newton, K. S., Staten, R. R., Crawford, T. N., & Hall, L. A. (2015). Predictors of well-being among college students. *Journal of American College Health, 64*(2), 116-124. <https://doi.org/10.1080/07448481.2015.1085057>
- Reuter, P. R., & Forster, B. L. (2021). Student Health Behaviour and Academic Performance. *PeerJ, 9*, e11107. <https://doi.org/10.7717/peerj.11107>

- Roberts, P., Priest, H., & Traynor, M. (2006). Reliability and validity in research. *Nursing Standard*, 20(44) 41-45.
- Rodríguez-González, M. S., Tinajero, C., Guisande, M. A. & Páramo, M. F. (2012). The Student Adaptation to College Questionnaire (SACQ) for use with Spanish Students. *Psychological Reports*, 11, 624 - 640.
<https://doi.org/10.2466/08.10.20.PR0.111.5.624-640>
- Rolfe, G. (2006). Validity, trustworthiness and rigour: Quality and the idea of qualitative research. *Journal of Advanced Nursing*, 53(3), 304-310.
<https://doi.org/10.1111/j.1365-2648.2006.03727.x>
- Richardson, M. C., Abraham, R., & Bond, R. (2012). Psychological Correlates of University Students' Academic Performance: A Systematic Review and Meta-Analysis. *Psychological Association*, 138(2), 353–387. <https://doi.org/10.1037/a0026838>
- Richkard, G., Brambleb, M., Maxwella, H., Einbodenc, R., Farringtona, R. S., Beha, C. L., Stankiewiczza, G., Campbella, C., & Yeha, C. (2018). Exploring the first-year experience in a diverse population: Using participatory action research to explore strategies to support student transition into fast-track undergraduate degree programs. *Student Success*, 9(4), 41 – 51. <https://doi.org/10.5204/ssj.v9i4.653>
- Ruthig, J. C., Marrone, S., Hladkyj, S., & Robinson-Epp, N. (2011). Changes in College Student Health: Implications for Academic Performance. *Journal of Student Development*, 52(3), 307-320.
- Ruane F. (2015, March 12th). Universities should offer broader course choices for students. *The Irish Times*. <https://www.irishtimes.com/opinion/universities-should-offer-broader-course-choices-for-students-1.2135348>
- Ryan, M., & Glenn., P. (2004). What do first-year students need most: Learning strategies instruction or academic socialisation? *Journal of College Reading and Learning*, 34(2), 4–28. <https://doi.org/10.1080/10790195.2004.10850159>
- Sadowski, C., Stewart, M., & Padiaditis, M. (2018). Pathway to success: Using students' insights and perspectives to improve retention and success for university students from low socioeconomic (LSE) backgrounds. *International Journal of Inclusive Education*, 22(2), 158-175. <https://doi.org/10.1080/13603116.2017.1362048>

- Saules, K. K., Pomerleau, C. S., Snedecor, S. M., Mehringer, A. M., Shadle, M. B., & Krahn, D. D. (2004). Relationship of onset of cigarette smoking during college to alcohol use, dieting concerns, and depressive mood: Results from the young women's health survey. *Addictive Behaviours*, *29*, 893-899. <https://doi.org/10.1016/j.addbeh.2004.02.015>
- Saunders, J. B., Aasland, O. G., Babor, T. F., De La Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption-II. *Addiction*, *88*(6), 791-804. <https://doi.org/10.1111/j.1360-0443.1993.tb02093.x>
- Savage, M. W., Strom, R. E., Ebesu Hubbard, A. S., & Aune, K. S. (2019). Commitment in College Student Persistence. *Journal of College Student Retention: Research, Theory & Practice*, *21*(2), 242–264. <https://doi.org/10.1177%2F1521025117699621>
- Schneider, M., & Preckel, F. (2017). Variables associated with achievement in higher education: A systematic review of meta-analyses. *Psychological Bulletin*, *143*(6), 565–600. <https://doi.org/10.1037/bul0000098>
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp.189-213). Sage Publication Inc.
- Seawright, K. W., Smith, I. H., Mitchell, R. K., & McClendon, R. (2013). Exploring entrepreneurial cognition in franchisees: A knowledge–structure approach. *Entrepreneurship Theory and Practice*, *37*(2), 201-227. <https://doi.org/10.1111%2Fj.1540-6520.2011.00467.x>
- Serrano, C., & Andreu, Y. (2016). Perceived emotional intelligence, subjective well-being, perceived stress, engagement and academic achievement of adolescents. *Revista de Psicodidáctica*, *21*(2), 357-374. <https://doi.org/10.1387/RevPsicodidact.14887>
- Shah, R., & Hagell, A. (2019). International comparisons of health and wellbeing in adolescence and early adulthood Research report February 2019. The Nuffield Foundation, London.

- Shaw, C., Brady, L. M., Davey, C. (2011). *Guidelines for research with children and young people*. National Children's Bureau Research Centre.
<https://childethics.com/library/other-literature/guidelines-for-research-with-children-and-young-people/>
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75. <https://doi.org/10.3233/EFI-2004-22201>
- Shier, H. (2001). Pathways to Participation: openings, opportunities and obligations: a new model for enhancing children's participation in decision making, in line with Article 12.1 of the United Nations Convention on the Rights of the Child. *Children and Society*, 15(2), 107-117. <https://doi.org/10.1002/chi.617>
- Singer, W. (2003). The role of the campus visits and summer orientation program in the modification of student expectations about college. *Journal of College Orientation and Transition*, 10(2), 52-59. <https://doi.org/10.24926/jcotr.v10i2.2571>
- Southcombe, A., Fulop, L., & Carter, G. (2015). Building Commitment: An Examination of Learning Climate Congruence and the Affective Commitment of Academics in an Australian University. *Journal of Further and Higher Education*, 39(5): 733–757.
- Spady, W. (1970). "Dropouts from Higher Education: Toward an Empirical Model." *Interchange* 2; PP. 38–62.
- Steering Committee on Technical Education. (1969) *Report to the Minister for Education on Regional Technical Colleges*. The Stationery Office, Dublin.
- Stewart-Brown, S., Evans, J., Patterson, J., Petersen, S., Doll, H., & Regis, D. (2000). The health of students in institutes of higher education: An important and neglected public health problem? *Journal of Public Health*, 22(4), 492-499.
<https://doi.org/10.1093/pubmed/22.4.492>
- Strange, C. C. & Banning, J. H. (2001). *Educating by design: Creating campus learning environments that work*. CA: Jossey-Bass, San Francisco.
- Strayhorn, T. L. (2012). *College students' sense of belonging: A key to educational success for all students*. Routledge.

- Suarez-Reyes, M. S., Serrano, M. M., & Van den Broucke, S. (2019). How do universities implement the Health Promoting University concept? *Health Promotion International*, 34(10), 14–1024. <https://doi.org/10.1093/heapro/day055>
- Sweeney, L. (2016). A Predictive Model of Student Satisfaction. *Irish Journal of Academic Practice*, 5(1), 1-30.
- Sugisawa, H., & Sugisawa, A. (1995). Development of research on self-rated health in the United States.[Article in Japanese]. *Nihon Kosshu Eisei Zasshi*, 42(6), 366-78.
- Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in the behavioral and social sciences*. Thousand Oaks, CA, Sage Publications.
- Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social & behavioral research*: Thousand Oaks, CA, Sage Publications.
- Tessema, M., Ready, K., & Yu, W. (2012). Factors affecting college students' satisfaction with major curriculum: Evidence from nine years of data. *International Journal of Humanities and Social Science*, 2(2), 34-34.
- The Lancet (2019). Health and wellbeing in adolescence and early adulthood. *The Lancet*, 2(393), 847. (10174): 847 [https://doi.org/10.1016/S0140-6736\(19\)30401-5](https://doi.org/10.1016/S0140-6736(19)30401-5)
- Thomas, L. (2002). Student retention in higher education: the role of institutional habitus. *Journal of Education Policy*, 17(4), 423-442. <https://doi.org/10.1080/02680930210140257>
- Thomas, A. (2011). *The Black College Experience: Immigrant and Native Black Students on Campus*. [Doctoral dissertation, Berkeley University].
- Thomas, L. (2012). *Building Student engagement and belonging in Higher Education at a time of change: Final report from the What Works? Student Retention and Success programme*. <https://www.phf.org.uk/publications/works-student-retention-success-final-report/>
- Thomas, L., Hill, M., O'Mahony, J., Yorke, M. (2017). *Supporting student success: Strategies for institutional change. What Works? Student Retention & Success programme*. <https://www.advance-he.ac.uk/knowledge-hub/supporting-student-success-strategies-institutional-change>

- Thomas, N., & O'Kane, C. (1998). The ethics of participatory research with children. *Children & Society*, 12(5), 336-348. <https://doi.org/10.1111/j.1099-0860.1998.tb00090.x>
- Thompson, S. (2019, January 18th). How Irish universities are involved in their students' health. *The Irish Times*. <https://www.irishtimes.com/life-and-style/health-family/how-irish-universities-are-involved-in-their-students-health-1.3751240>
- Thorne, S. (1994). Secondary analysis of qualitative data: Issues and implications. In J. Morse (Eds.), *Critical issues in qualitative research methods* (pp. 263-279). Thousand Oaks, CA: Sage.
- Tight, M. (2020). Student Retention and Engagement in Higher Education. *Journal of Further and Higher Education*, 44(5), 689-704. <https://doi.org/10.1080/0309877X.2019.1576860>
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125. <https://doi.org/10.3102%2F00346543045001089>
- Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd Ed.), University of Chicago Press, Chicago.
- Tinto, V. (2006). Research and Practice of student retention; what next? *Journal of College Student Retention: Research, Theory and Practice*, 8, 1-19. <https://doi.org/10.2190/4YNU-4TMB-22DJ-AN4W>
- Tinto, V. (2008, November 1st). *Access without support is not opportunity* [Keynote address]. The 36th Annual Institute for Chief Academic Officers: The Council of Independent Colleges, Seattle, Washington. <http://faculty.soe.syr.edu/vtinto/Files/Council%20of%20Independent%20Colleges%202008%20Keynote.pdf>
- Tinto, V. (2017). Reflections on Student Persistence. *Student Success*, 8(2), 1-8. <https://doi.org/10.5204/ssj.v8i2.376>
- Torsheim, T., Ravens-Sieberer, U., Hetland, J., Valimaa, R., Danielson, M., Overpeck, M. (2006). Cross-national variation of gender differences in adolescent subjective health

- in Europe and North America. *Social Science and Medicine*, 62(4), 815-827.
<https://doi.org/10.1016/j.socscimed.2005.06.047>.
- Trockel, M. T., Barnes, M. D., & Egget, D. L. (2000). Health related variables and academic performance among first-year college students: Implications for sleep and other behaviours. *Journal of American College of Health*, 49, 125-131. <https://doi.org/10.1080/07448480009596294>
- Trow, M. (1973). *Problems in the Transition from Elite to Mass Higher Education*. Carnegie Commission on Higher Education Berkeley, California.
<https://files.eric.ed.gov/fulltext/ED091983.pdf>
- Trowler, V., & Trowler, P. (2010). *Student engagement evidence summary*. The Higher Education Academy, York, UK.
- Troxel, W. G. (2010). *Student Persistence and Success in United States Higher Education: A Synthesis of the Literature*. Higher Education Academy, York.
- Tsouros, A., Dowding, G., Thompson, J., Dooris, M., & World Health Organisation Regional Office for Europe. (1998). *Health Promoting Universities: Concepts, experiences and frameworks for action*. World Health Organisation Report: Regional Office for Europe, Copenhagen. <https://apps.who.int/iris/handle/10665/108095>
- Ulin, P. R., Robinson, E. T., & Tolley, E. E. (2012). *Qualitative methods in public health: A field guide for applied research*. John Wiley & Sons.
- Union of Students in Ireland. (2019). *USI national report on student mental health in third level education*. <https://usi.ie/mentalhealthreport/>
- United Nations Convention on the Rights of a Child. (1989). United Nations, Geneva.
- Varnham, S., Olliffe, B., Waite, K., & Cahill, A. (2018). *Student engagement in university decision-making and governance: Towards a more systematically inclusive student voice. 2015-2016. Final Report 2018*. Department of Education and Training, Australian Government. https://ltr.edu.au/resources/SP14-4595_Varnham_FinalReport_2018.pdf
- Vaez, M., Kristenson, M. & Laflamme, L. (2004). Perceived Quality of Life and Self-Rated Health among First-Year University Students. *Social Indicators Research* 68, 221–234. <https://doi.org/10.1023/B:SOCI.0000025594.76886.56>

- Viner, R., Hargreaves, D., dos Santos Motta, J.V., Horta, B., Mokdad, A.H., & Patten, G. (2017). Adolescence and Later Life Disease Burden: Quantifying the Contribution of Adolescent Tobacco Initiation From Longitudinal Cohorts. *Journal of Adolescent Health, 61*(2): 171-178.
- Viner, R., Ross, D., Hardy, R., Kuh, D., Power, C., Johnson, A., Wellings, K., McCambridge, J., Cole, T.J., Kelly, Y., & Batty, G.D (2015). 'Life course epidemiology: recognising the importance of adolescence. *Journal of Epidemiology and Community Health.*
- Wald, A., Muennig, P., Muennig, K., O'Connell, A. K., Ewing, C. E., Garber. (2013). Associations Between Healthy Lifestyle Behaviours and Academic Performance in U.S. Undergraduates: A Secondary Analysis of the American College Health Association's National College Health Assessment II. *American Journal of Health Promotion, 28*(5). <https://doi.org/10.4278/ajhp.120518-QUAN-265>
- Wallerstein, N. B., & Duran, B. (2006). Using Community-Based Participatory Research to Address Health Disparities. *Health Promotion Practice, 7*(3), 312-323. <https://doi.org/10.1177/1524839906289376>
- Walsh. T. (2016). The National System of Education 1831-2000. In B. Walsh (Ed.), *The History of Irish Education*, (pp. 7-43). Palgrave Macmillan Limited. <http://mural.maynoothuniversity.ie/9689/1/TW-National-2016.pdf>
- Webb, E., Ashton, C. H., Kelly, P., & Kamali, F. (1996). Alcohol and drug use in UK university students. *Lancet, 5*, 922–925. [https://doi.org/10.1016/s0140-6736\(96\)03410-1](https://doi.org/10.1016/s0140-6736(96)03410-1)
- Wosley, S. A. & Miller, A. (2009). Integration and Institutional Commitment as Predictors of College Student Transition: Are Third Week Indicators Significant? *College Student Journal, 43*(4), 1260-1271.
- Wosley, S. A., & Shepler, D. (2011). First-Generation University Students: Understanding the Early Integration Experiences of First-Generation College Students. *College Student Journal, 45*(4), 700-714.
- White, M. A. (2001). *Investing in People Higher Education in Ireland from 1960-2000*. Institute of Public Administration, Dublin.

- World Health Organisation. AUDIT Screening Tool. Retrieved October 20th, 2016, <http://www.drugs.ie/NDRICdocs/protocol1/templates/AUDIT.pdf>
- World Health Organisation. (1986). *The Ottawa charter for health promotion*. Geneva, Switzerland. <https://www.who.int/healthpromotion/conferences/previous/ottawa/en/>.
- World Health Organisation. (2018a). *Global action plan on physical activity 2018-2030; More Active People for a Healthier World*. World Health Organisation, Geneva. <https://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf>
- World Health Organisation. (2018b). WHO Mental disorders. World Health Organisation, Geneva. https://www.who.int/mental_health/management/en/#targetText=Mental disorderscompriseabroad,disordersduetodrugabuse.
- World Health Organisation. (2020). *Basic Documents. Forty-ninth Edition 2020*. WHO <https://apps.who.int/gb/bd/>
- World Health Organisation. (1998). *Health Promotion Glossary*. Geneva; Switzerland. <https://www.who.int/healthpromotion/about/HPG/en/>
- World Health Organisation. (2012). *Health 2020: a European policy framework supporting action across government and society for health and well-being*. WHO Regional Office for Europe. https://www.euro.who.int/_data/assets/pdf_file/0006/199536/Health2020-Short.pdf
- World Health Organisation. (2010). *European Status Report on Alcohol and Health 2010*. Geneva: World Health Organisation.
- Wicki M, Kuntsche E, Gmel G. (2010). Drinking at European universities? A review of students' alcohol use. *Addict Behav*, 35(11), 913–24. <https://doi.org/10.1016/j.addbeh.2010.06.015>.
- 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. <https://doi.org/10.1080/03075070500340036>
- Willingham, W. (1974). Predicting Success in Graduate Education. *Science*, 183(4122), 273-278. <https://doi.org/10.1126/science.183.4122.273>

- Wintre, M. G., Dilouya, B., Pancer, S. M., Pratt, M. W., Birnie- Lefcovitch, S., Polivy, J., & Adams, G. (2011). Academic achievement in first-year university: Who maintains their high school average? *Higher Education*, 62(4), 467-481.
<http://dx.doi.org/10.1007/s10734-010-9399-2>
- Wolaver, A. M. (2002). Effects of heavy drinking in college on study effort, grade point average, and major choice. *Contemporary Economic Policy*, 20(4), 415-428.
<https://doi.org/10.1093/cep/20.4.415>
- Wolaver, A. (2007). Does drinking affect grades more for women? Gender differences in the effects of heavy episodic drinking in college. *The American Economist*, 51(2):72–88.
<https://doi.org/10.1177%2F056943450705100211>
- Wrench, A., Garrett, R., & King, S. (2013). Guessing where the goal posts are: managing health and well-being during the transition to university studies. *Journal of Youth Studies*, 16(6), 730-746. <https://doi.org/10.1080/13676261.2012.744814>
- Yauch, C. A., & Steudel, H. J. (2003). Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods*, 6(4), 465-481.
- Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48(2), 311-325. <https://doi.org/10.1111/ejed.12014>
- Yonghong, J. (2016). Attention to Retention: Exploring and addressing the needs of college students in STEM majors. *Journal of Education and Training Studies*, 4, 67-76.
<https://doi.org/10.11114/jets.v4i2.1147>.
- Yorke, M. & Longden, B. (2004). *Retention & Student Success in Higher Education*. Open University Press.
- Zanden, P. J., Denessen, E., Cillessenb, A., & Meijera, P. C. (2019). Patterns of success: first-year student success in multiple domains. *Studies in Higher Education*, 44(11), 2081-2095 <https://doi.org/10.1080/03075079.2018.1493097>
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education*, 46(6), 677-706.
<https://doi.org/10.1007/s11162-004-4139-z>

Zepke, N., & Leach, L. (2010). Improving student engagement; Ten proposals for action.

Active Learning in Higher Education, 11(3), 167-177.

<https://doi.org/10.1177%2F1469787410379680>

Zhao, C. M., & Kuh, G. D. (2004). Adding value: Learning communities and student

engagement. *Research in Higher Education*, 45(2), 115-138.

<https://doi.org/10.1023/B:RIHE.0000015692.88534.de>

Appendix 1 Student Survey Time 1

NUIG First Year Student Life Survey

This is the FIRST YEAR NUIG Student Life Survey. It is for students to tell the University what it is like to be a First-year student at NUIG. It takes 15-20 minutes of your time. It is the first time students can inform directly the college management, lecturers and support services – so we want as many first years as possible to complete the survey.

We have some great prizes to make it worth your while – an iPad and five €100 One-For-All Vouchers to give away before Christmas.

There is a lot of really positive things about being a first-year student here. We know there are pressures and stresses too. This survey will tell us about all of these for the first time – and allow us to tell the people who can make changes. Are classes too big? Are there enough places to relax between classes? Are you satisfied with your accommodation? What do you like about NUIG? Please tell us so we can tell them! The survey is supported by Student Services and the Students Union at NUIG, who want to find out more about the student experience to further improve it.

Do I have to take part?

This survey is entirely voluntary. If you do decide to take part, you can stop at any time. Your answers are confidential – only seen by the survey team and no-one else. The questions are about how you are finding classes, accommodation, your well-being / feelings and behaviours like drinking.

Later Surveys

This survey is part of a larger project that will go on for the next few years. At the end of this survey we will invite you to sign up to let us know how you are getting on as you go through college. This is completely optional.

How long will it take to complete the survey?

It takes 15-20 minutes to complete. There is no time limit, but you do need to complete it in one go. You will not be able to save it and come back to it later.

What if I have any queries or complaints?

Please contact us if you would like to discuss anything about the survey. The PhD student managing the survey is Natasha Daniels at the School of Psychology (n.daniels3@nuigalway.ie).

By clicking to continue you are giving your consent to begin the survey.

To talk to someone independently about the study please contact the Chairperson of the NUI Galway Research Ethics Committee - ethics@nuigalway.ie

By clicking on 'NEXT' you agree to take part in the survey.

NUIG First Year Student Life Survey

Basic information about you.

* 1. What gender are you?

- Male
- Female
- Other (please specify)

* 2. What age are you?

3. What term best describes your sexual orientation?

- Asexual
- Lesbian
- Bisexual
- Pansexual
- Gay
- Straight/Heterosexual
- Other (please specify)

NUIG First Year Student Life Survey

Basic information about your studies.

* 4. What year of your studies are you in?

- 1st year undergraduate
 Other (please specify)

* 5. Are you

- Full-time Part-time Repeating first year

* 6. Do you believe your current course/academic programme is right for you?

- Yes No I don't know

7. How many points did you get in your Leaving Certificate?(If you did not do the Leaving Certificate please put N/A)

NUIG First Year Student Life Survey

How you feel about NUIG

* 8. At present to what degree do you feel

	Doesn't apply to me at all		Neutral				Applies very closely to me	
I am pleased now about my decision to attend college in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am pleased now about my decision to attend NUI Galway in particular	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect to stay at this college to complete my course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I were at another college or university	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been giving a considerable amount of thought to taking time off from college and finishing later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been giving a lot of thought to transferring to another college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lately I have been giving a lot of thought to dropping out of college altogether and for good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NUIG First Year Student Life Survey

Your family background.

* 9. Which best describes your father's/male guardian's highest level of education?

- | | |
|---|--|
| <input type="radio"/> Post-primary school Junior Certificate | <input type="radio"/> College Diploma |
| <input type="radio"/> Post-primary school Leaving Certificate | <input type="radio"/> College Degree or higher |
| <input type="radio"/> Some college | |

* 10. Which best describes your mother's/female guardian's highest level of education?

- | | |
|---|--|
| <input type="radio"/> Post-primary school Junior Certificate | <input type="radio"/> College Diploma |
| <input type="radio"/> Post-primary school Leaving Certificate | <input type="radio"/> College Degree or higher |
| <input type="radio"/> Some college | |

* 11. Think of the primary earner in your family growing up - which of the following best describes their employment/position?

- High managerial, administrative or professional
- Intermediate managerial, administrative or professional
- Supervisory, clerical or junior managerial, administrative or professional
- Skilled manual workers
- Semi and unskilled manual workers
- State pensioners, casual workers, unemployed with state benefits only.

NUIG First Year Student Life Survey

Campus Socialising

* 12. During term time, to what degree do you:

	Not at all		Moderately			Extremely	
Participate in a Student Society (e.g., Lit & deb, drama, music)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in a Student Sports Club (e.g., NUIG GAA, football, athletics)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in a Volunteering activity (e.g., homework club, fundraising)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hold a leadership role in a University Student Society (e.g., committee member), Club (e.g., team captain), Volunteering (e.g., group leader)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 13. On campus to what degree are you connecting with people

	Not at all		Moderately			Extremely	
Who share a common interest with you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who include you in their activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who you like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NUIG First Year Student Life Survey

Academic behaviours.

* 14. To what degree are you the type of person who:

	Not at all		Half the time			Always	
Attends class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Takes good notes in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Submits required assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spends sufficient time studying to earn good grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participates in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicates with lecturers/tutors outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Works on large projects well in advance of the due date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 15. To what degree do you agree with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My academic programme is of good quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The class size of the course I attend is generally too large	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The teaching skills of my lecturers are generally poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the atmosphere in my course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The atmosphere at NUIG is good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find every day enjoyable at NUIG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



* 16. To what degree are you certain that you can....

	Not at all		Moderately			Extremely	
Do well on problems and tasks assigned to your course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do well in your hardest modules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persevere on class projects even when there are challenges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 17. To what degree are you the kind of person who....

	Not at all		Moderately			Extremely	
Is self-disciplined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follows through with what you say you're going to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is dependable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows up on time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plans out your time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Makes 'to do' lists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Balances time between classes and other activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 18. Please read each of the following statements. Tick one option for each row to indicate how much the statement applied to you OVER THE PAST WEEK.

	Never	Sometimes	Often	Almost always
I found it hard to wind down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of dryness in my mouth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I couldn't seem to experience any positive feelings at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced breathing difficulties (e.g. breathlessness in the absence of physical exertion)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to work up the initiative to do things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tended to over-react to things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced trembling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 19. Please read each of the following statements. Tick one option for each row to indicate how much the statement applied to you OVER THE PAST WEEK.

	Never	Sometimes	Often	Almost always
I felt that I was using a lot of nervous energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was worried about situations in which I might panic and make a fool of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I had nothing to look forward to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found myself getting agitated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to relax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt downhearted and blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was intolerant of anything that kept me from getting on with what I was doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 20. Please read each of the following statements. Tick one option for each row to indicate how much the statement applied to you OVER THE PAST WEEK.

	Never	Sometimes	Often	Almost always
I felt I was close to panic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was unable to become enthusiastic about anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I wasn't worth much as a person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I was rather touchy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of the action of my heart without physical exertion (e.g. heart rate increase, heart missing a beat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt scared without any good reason	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that life was meaningless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. Please consider the following statements and tick a box for each row.

	Not like me at all	Not like me	Neither me nor unlike me	Like me	Very much like me
I am good at resisting temptation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do certain things that are bad for me if they are fun	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People would say I have iron self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pleasure and fun sometimes stop me from getting work done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to work effectively toward long-term goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I can't stop myself from doing something, even when I know it is wrong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often act without thinking of the alternatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NUIG First Year Student Life Survey

Health, friends and alcohol.

* 22. In general how would you say your health is?

- Excellent
- Very good
- Good
- Fair
- Poor

23. Over the past 7 days, on how many days were you physically active for at least 30 minutes per day?

- | | |
|------------------------------|------------------------------|
| <input type="radio"/> 0 days | <input type="radio"/> 4 days |
| <input type="radio"/> 1 day | <input type="radio"/> 5 days |
| <input type="radio"/> 2 days | <input type="radio"/> 6 days |
| <input type="radio"/> 3 days | <input type="radio"/> 7 days |

24. Drinking habits

	1 or 2 drinks	3 or 4 drinks	5 or 6 drinks	7 to 9 drinks	10 or more drinks
How many drinks containing alcohol do you have on a typical day when you are drinking?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Another question about your drinking habits

	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4 or more times per week
How often do you have a drink containing alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Last question about your drinking habits

	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
How often do you have 6 or more drinks in one occasion (e.g. One drink equals - A pub measure of spirits (35.5 ml), a small glass of wine (100ml), a half pint of normal strength beer or cider, an alcopop (275 ml)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. On how many occasions, if any, have you had cannabis? (hash, weed, skunk, herbal cannabis or cannabis oil)

	Never	Once or twice	3 - 5 times	6 - 9 times	10 -19 times	20 - 39 times	40 times or more
In your life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 12 months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 30 days	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NUIG First Year Student Life Survey

LAST PAGE!

28. Please use this space to tell us anything that we should know about your life here at NUIG that we have not included in the survey.

Maybe something you like or dislike about NUIG?

No matter how big or small please share it with us.

29. We are running a prize draw for all students who completed the survey.

The prizes include an iPad and five €100 One-For-All vouchers!!!

The draw will take place before the Christmas holidays!

If you would like to enter the draw please type the E-MAIL ADDRESS YOU USE MOST REGULARLY into the space provided.

Good luck!!

30. We will be doing another survey at the end on semester 2 to catch up with you and see how you are doing towards the end of your first year here at NUI Galway.

If you would like to be part of the second round of the survey and help us understand students experiences at NUI Galway please do one of the following actions:

A. type your e-mail address in the space provided

or

B. If you have already typed your email address into Q29 above you can put 'X' in the space to enter the next phase of research.

Appendix 2 Student Survey Time 2

NUIG First Year Student Life Survey - PART 2

This is the FIRST YEAR NUIG Student Life Survey. This is part 2 of the project - Survey 2. You have been contacted because you completed the first survey (in semester 1) and you gave us your email address to participate in part 2. Thank you so much for completing the first survey.

This project provides you with an opportunity to tell the University what it is like to be a first-year student at NUIG and we are thrilled you are continuing to participate. This survey is supported by Student Services and the Students Union at NUIG and they want to know more about the student experience here so they can improve it.

This survey is much shorter than the first one and should take 10 minutes of your time. We have some great prizes to make it worth your while again – 4 €100 One-For-All Vouchers to giveaway before the Summer exams!!!

Do I have to take part?

This survey is entirely voluntary. If you do decide to take part you can stop at any time. Your answers are confidential – only seen by the survey team and no-one else.

Later Surveys

This survey is part of a larger project that will go on for the next few years. At the end of this survey we will invite you to sign up to let us know how you are getting on as you go through college. This is completely optional.

How long will it take to complete the survey?

It takes 10 minutes to complete. There is no time limit but you do need to complete it in one go. You will not be able to save it and come back to it later.

What if I have any queries or complaints?

Please contact us if you would like to discuss anything about the survey. The PhD student managing the survey is Natasha Daniels at the School of Psychology (n.daniels3@nuigalway.ie).

By clicking to continue you are giving your consent to begin the survey.

To talk to someone independently about the study please contact the Dr. John Bogue (Head of the School of Psychology) john.bogue@nuigalway.ie

By clicking on 'NEXT' you agree to take part in the survey.

NUIG First Year Student Life Survey - PART 2

Basic information about you.

* 1. What gender are you?

- Male
 Female
 Other (please specify)

* 2. What age are you?

NUIG First Year Student Life Survey - PART 2

Health & how you feel about NUIG now.

* 3. In general how would you say your health is?

- Excellent
 Very good
 Good
 Fair
 Poor

* 4. Over the past 7 days, on how many days were you physically active for at least 30 minutes per day?

- | | |
|------------------------------|------------------------------|
| <input type="radio"/> 0 days | <input type="radio"/> 4 days |
| <input type="radio"/> 1 day | <input type="radio"/> 5 days |
| <input type="radio"/> 2 days | <input type="radio"/> 6 days |
| <input type="radio"/> 3 days | <input type="radio"/> 7 days |

* 5. To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I see myself as part of the campus community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I am a member of this college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a sense of belonging to this campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If asked I would recommend this college to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 6. At present to what degree do you feel;

	Doesn't apply to me at all		Neutral				Applies very closely to me	
I am pleased now about my decision to attend college in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am pleased now about my decision to attend NUI Galway in particular	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect to stay at this college to complete my course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I were at another college or university	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been giving a considerable amount of thought to taking time off from college and finishing later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been giving a lot of thought to transferring to another college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lately I have been giving a lot of thought to dropping out of college altogether and for good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 7. Please read each of the following statements. Tick one option for each row to indicate how much the statement applied to you OVER THE PAST WEEK.

	Never	Sometimes	Often	Almost always
I found it hard to wind down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of dryness in my mouth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I couldn't seem to experience any positive feelings at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced breathing difficulties (e.g. breathlessness in the absence of physical exertion)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to work up the initiative to do things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tended to over-react to things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced trembling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 8. Please read each of the following statements. Tick one option for each row to indicate how much the statement applied to you OVER THE PAST WEEK.

	Never	Sometimes	Often	Almost always
I felt that I was using a lot of nervous energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was worried about situations in which I might panic and make a fool of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I had nothing to look forward to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found myself getting agitated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to relax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt downhearted and blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was intolerant of anything that kept me from getting on with what I was doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 9. Please read each of the following statements. Tick one option for each row to indicate how much the statement applied to you OVER THE PAST WEEK.

	Never	Sometimes	Often	Almost always
I felt I was close to panic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was unable to become enthusiastic about anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I wasn't worth much as a person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I was rather touchy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of the action of my heart without physical exertion (e.g. heart rate increase, heart missing a beat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt scared without any good reason	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that life was meaningless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 10. Three questions about your drinking habits....

	1 or 2 drinks	3 or 4 drinks	5 or 6 drinks	7 or 9 drinks	10 or more drinks	N/A
How many drinks containing alcohol do you have on a typical day when you are drinking?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 11. Another questions about your drinking habits....

	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4 or more times per week
How often do you have a drink containing alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 12. Last question about your drinking habits

	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
How often do you have 6 or more drinks in one occasion (e.g. One drink equals - A pub measure of spirits (35.5 ml), a small glass of wine (100ml), a half pint of normal strength beer or cider, an alcopop (275 ml)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 13. On how many occasions, if any, have you had cannabis? (hash, weed, skunk, herbal cannabis or cannabis oil)

	Never	Once or twice	3 - 5 times	6 - 9 times	10 -19 times	20 - 39 times	40 times or more
In your life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 12 months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 30 days	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 4. Participatory Workshop Information Sheet

Participant Invitation Letter

Dear student,

My name is Natasha Daniels, and I am writing to invite you to take part in a study here at NUIG. The study is focused on understanding the first-year student experience, with a focus on student persistence and well-being during the first-year student transition.

As part of this study, you are being invited to join a Student Research Partnership Project for the first time at NUIG. The participants will be asked to take part in two research workshops on campus lasting approximately one hour each. These workshops will require you to take part in activities such as group discussions, group brainstorming, theming and categorising your ideas on the topic. There will also be opportunities to meet up and talk about the data you generate and how we can use it on campus if you wish to.

The purpose of this partnership is to record students' perspectives and opinions on what helps them persist at college and what difficulties they experience to try and understand the first-year student experience and how students can be better supported at NUIG.

Participating in the research does not require you to refer to your own experiences or any personal information and your name will NOT be attached to any materials. The workshops will be facilitated by me and one other researcher and they will be voice recorded for research purposes. For you to be able to participate you must sign a consent form at the beginning of each workshop. You can withdraw from the research at any time without giving any reasons.

Your participation may benefit NUIG students now and in the future by helping us understand what factors influence student persistence. I hope that you will be happy to take part in this study. If you have any questions about this study, please feel free to contact me. Thank you for your time.

Kind regards,
Natasha

Natasha Daniels
School of Psychology,
Arts Millennium Building Extension,
National University of Ireland, Galway.
n.daniels3@nuigalway.ie

Appendix 5. Project Information Sheet for Student Research Partnership Panel

Student Partnership Panel Information Sheet

The Student Information Project

This project is aligned to the Student Information Project (SIP), a three-year research study underway with Natasha Daniels as PhD Student and Dr. Pdraig MacNeela as Supervisor. We have collected survey data from approximately 3,000 students since 2016 on well-being, risk behaviours, and academic experiences. The goal of the SIP project is to feedback these findings across the university community at all levels from senior management to academic and support staff and student groups.

Natasha's PhD study

My PhD Study aims to explore the first-year student experience at college towards understanding student persistence, well-being and student support needs. This will be carried by using surveys to collect information and through this participation project.

The Participation Project

Collaborating with Students using participatory research methodologies to explore the first-year student experience.

There are 6 central aims of the work

1. To establish a Student Research Partnership Panel (of approx. 4 students) to work on the project with Natasha to ensure student perspectives and opinions are part of each stage of the project.
2. To conduct a participatory workshop to explore second year students' perceptions of the first-year experience, in terms of barriers / supports for successful completion of the year. Approx. 30 students will participate in this.
3. To conduct a second participatory workshop using the data developed in workshop 1 to develop a "Timeline of student Supports" identifying what supports first year student need and when do they need them during year 1 at college. The same 30 students will participate in this workshop.
4. The Student Partnership Panel will then consider the student data and organise it in a cohesive way creating a student data story.
5. To develop a methodology and a framework for the development and active inclusion of a Student Partnership Panel to be used in the future in a sustainable way on campus, and nationally.