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UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Staying the Course:

Factors Affecting the Progression of Access Foundation Students at Technological University Dublin

A Research Report

OLLSCOIL TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH
TU DUBLIN
TECHNOLOGICAL UNIVERSITY DUBLIN



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MAY 2022

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Contents

Acknowledgements 2

List of Figures 4

List of Tables 4

Foreward 5

Abstract 6

Summary of the Study 7

Introduction 7

Progression in Higher Education 13

- Demographic Factors Affecting Progression 13
- Psychosocial Factors Affecting Progression 14
- Environmental Factors Affecting Progression 15
- Educational Factors Affecting Progression 16
- Institutional Factors Affecting Progression 18

Theories Related to Progression 20

Methodology 22

Quantitative Findings 24

- Demographic Factors 24
- Psychosocial Factors 26
- Personality Traits 27
- Environmental Factors 28
- Institutional Factors 29
- Environmental Factors 31
- Quantitative Model of Access Foundation Student Progression 31

Qualitative Findings 32

- Psychosocial Factors 32
- Environmental Factors 32
- Institutional Factors 33
- Educational Factors 34
- Theoretical Model of Access Foundation Student Progression 35

Discussion 37

- Psychosocial Factors 38

Environmental Factors 41
Institutional Factors 42
Educational Factors 45
Recommendations for Policy and Practice 48
Conclusion 50
References 51

List of Figures

Figure 1 *Qualitative Model of Access Student Progression* 8
Figure 2 *Psychosocial Factors Affecting Progression in Higher Education* 20
Figure 3 *Environmental Factors Affecting Progression in Higher Education* 21
Figure 4 *Progression as a Function of Leaving Certificate Points 2016/17 – 2017/18* 22
Figure 5 *Educational Factors Affecting Progression in Higher Education* 23
Figure 6 *Institutional Factors Affecting Progression in Higher Education* 24
Figure 7 *Tinto's Student Integration Model* 25
Figure 8 *Access Foundation Students by Age Group and Gender* 27
Figure 9 *Percentage of Non-Irish Nationals by Age and Gender* 28
Figure 10 *Optional Module Choices of Access Foundation Students in Semester 1* 33
Figure 11 *Optional Module Choices of Access Foundation Students in Semester 2* 34

List of Tables

Table 1 *Progression in Higher Education by Nationality in 2016/17 – 2017/18* 19
Table 2 *Comparison of Progression Rates by Year of Study* 28
Table 3 *Progression Rates of Access Foundation Students by Nationality and Age* 28
Table 4 *Socio-Economic Status of Mature and Young Adult Access Foundation Students* 29
Table 5 *Need for Relatedness by Gender, Age and Nationality* 30
Table 6 *Personality Traits and Progression* 31
Table 7 *General Self-Efficacy Scores Related to Progression, Age, Nationality and Gender* 31
Table 8 *Access Foundation Student Residences in 2017/18, 2018/19 and 2019/20* 31
Table 9 *Access Foundation Students' Housemates* 32

Foreward

Equity of access to higher education has been a fundamental principle of Irish education policy for many years. As a country we have everything to gain and nothing to lose by increasing levels of participation in higher education among all Irish citizens. It is imperative to maximise Ireland's potential that we focus on broadening participation in higher education from groups and communities who have been under-represented up to now – in particular, those living with social disadvantage, mature students, people with disabilities and Irish Travellers.

While the participation in first year undergraduate higher education as a percentage of the total in this age cohort is over 50% in the Dublin region, there are huge variations across the city and this can be gleaned by the differences between postal districts. For example, in Dublin 6 over 98% of individuals in this age cohort are in first year undergraduate studies while the comparable figures in Dublin 15, Dublin 1 and Dublin 7 are respectively 15%,23% and 26%. These figures demonstrate the inherent existing inequality in access to higher education. They provide a huge impetus for higher education institutions in the Dublin region to prioritise their efforts to widen participation from amongst the communities many are based in.

Technological University Dublin's Access Foundation Programme has been operating for over ten years and has been a hugely important initiative for widening participation in the Dublin region and particularly in some of the most disadvantaged inner-city communities. It has provided great opportunity for a very diverse group of learners and the outcomes form the programme have been remarkable. It is critical though that we analyse and research all aspects of the programme to ensure its continued success and that we learn from our experience to ensure that the programme develops and delivers the best possible outcomes for the participants.

This report provides a detailed analysis of all aspects of the access foundation programme. It provides an evidence base on the effectiveness and value of interventions and strategies for ensuring student success and progression onto undergraduate programmes in the university and successful progression within destination programmes. It will help inform policymakers and ensure that targeted interventions are effective.

In conclusion, I would like to congratulate Dr. Fiona Faulkner, Dr. Annette Forster and Dr. Mark Prendergast for an excellent piece of research that will lead to better outcomes for students and will inform and hone policy on widening participation in higher education.



Head of School of Tourism and Hospitality Management

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Abstract

This study examined the factors affecting the progression of Access Foundation students to undergraduate studies, as there is little research on the progression of such students in the empirical literature. Access education has been developed for marginalized students who are traditionally under-represented in higher education. A pragmatic, mixed-methods approach was used to determine the factors that affect the progression of Access Foundation students at Technological University Dublin (TU Dublin) over three academic years (2017/18, 2018/19 and 2019/20). Quantitative and qualitative data were collected via a questionnaire and semi-structured interviews. Quantitative data was analysed using a range of descriptive and inferential statistics. The grounded theory approach recommended by Strauss and Corbin (1990) was adopted for qualitative analysis. Findings revealed that demographic, psychosocial, environmental, institutional and educational factors play a role in students' progression from Access education to undergraduate studies. Factors such as housemates, attendance and working during the Access programme were found to be predictors of Access student progression in a binary logistic regression. Additionally, progression rates were higher when there was a higher proportion of mature students in the Access programme. Quantitative and qualitative models of Access student progression were developed.

Summary of the Study

Introduction

> *Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.* (United Nations General Assembly, 1948, p. 6)

Although higher education underwent an expansion in the latter half of the 20th century, it is still not available to all students. In many countries, students from wealthier backgrounds have more opportunities to attend higher education than students from lower socio-economic circumstances. In addition, school leavers are more likely to attend higher education than older students. In Ireland too, different social groups have different levels of higher education participation. However, a variety of entry routes have been created to encourage students from traditionally under-represented groups to engage with higher education. One such route is via Access programmes.

Access programmes offer an alternative route to higher education that provides marginalized students, particularly those who are under-represented in higher education, with the academic and personal supports needed to succeed in higher education. Although Access programmes make it easier for students to make the transition to higher education, students' ability to progress to higher education may still be undermined by a variety of factors.

Aim of the Study

Access programmes have been shown to provide students with the supports they need to be successful in undergraduate studies. To date, however, there has been no research on the factors that affect the progression of Access students in Ireland to undergraduate studies. In fact, little research exists in the area of Access education on either a national or an international scale. As such, the goal of the current study was to address this gap in the empirical literature. Specifically, the study examined the following research question:

- *What are the factors affecting the progression of Access Foundation students to undergraduate studies?*

Access Foundation students were deemed to have progressed if they were offered a place in a higher education course at TU Dublin on completion of the Access Foundation programme

Methodology

A mixed-methods approach was employed. In Phase 1, the quantitative phase, Access Foundation students completed a structured questionnaire at the start of the programme. In Phase 2, the qualitative phase, a subset of these students engaged in one-to-one interviews with the researcher at the end of the Access Foundation programme. Data collection took place over the course of three academic years: 2017/18, 2018/19 and 2019/20.

Key Findings

The findings revealed that demographic, psychosocial, environmental, educational, and institutional factors affected progression in the Access programme.

Demographic factors affecting progression

Access student progression varied depending on the demographic factors of age, nationality, and socio-economic status.

- *Age:* Mature students – defined here as those aged 23 years and older – had a slightly higher progression rate (68 percent) than young adults, i.e. students under 23 years (60 percent). Moreover, as the percentage of young adults in the programme increased over the course of the three years of this study, the rate of progression for all students decreased.

- *Nationality:* Comparing the progression rates of Irish nationals (students born in Ireland) and non-Irish nationals (students born outside Ireland) revealed that mature Irish nationals had a progression rate of 61 percent and mature non-Irish nationals had a progression rate of 78 percent.

- *Socio-economic status:* Mature students from affluent, marginally above-average and mixed areas were significantly more likely to progress to higher education than mature students from mainly disadvantaged areas.

Psychosocial factors affecting progression

Progression varied depending on the psychosocial factors of motivation, personality, and health and well-being

Motivation: Young adults, who had lower progression rates than mature students, had significantly higher scores for extrinsic motivation than their mature peers.

- *Personality:* Young adults also had higher extraversion scores than mature students.
- *Health and well-being:* Interviewees contended that physical and mental health issues had a negative effect on student progression. Additionally, addiction, in particular alcohol addiction, may have affected the progression of some students in the Access programme.

Environmental factors affecting progression

Environmental factors that affected progression included housemates, family commitments financial supports, working and belonging.

- *Housemates:* An Access student living with a spouse or partner, a child, or other students was significantly more likely to progress to undergraduate studies than an Access student who lived with parents or another relative.
- *Family commitments:* Mature students who were parents were significantly more likely to progress to undergraduate studies than young adults who were parents. Lack of babysitting facilities made it difficult for some Access students to arrive on time for classes, to attend learning support services, to find time to complete assignments, and ultimately to progress.
- *Financial supports:* Quantitatively, there was no significant difference in progression based on financial support overall. However, mature students were significantly more likely to obtain financial support than young adults, and males were significantly more likely to obtain financial support than females. Interviewees felt that lack of finances negatively affected progression and noted that it was particularly difficult for young adults.
- *Working:* Although quantitative analysis indicated that the progression rate of students who worked was not significantly different from those who did not, interviewees contended that having a job did have a negative effect on progression.

- *Belonging:* Interviewees commented that some students found it difficult to fit in when they first started but adjusted to life at TU Dublin. However, other students felt that their socio-economic status created barriers for them in the programme and that they failed to progress as a result.

Institutional factors affecting progression

The institutional factors of changing modules and college breaks affected progression, but travel distance did not.

- *Changing modules:* During the programme, 35 percent of students changed their mind about the modules they wanted to study, and 71 percent of these students progressed to undergraduate studies. Interviewees contended that some students would not have continued in the Access programme if they had not had the opportunity to change modules.
- *Travel distance:* Progression to undergraduate studies was independent of the distance students lived from the Access programme in Mountjoy Square. However, during interviews participants noted that travel times affected their choice of college, that travelling long distances was stressful, and that they were concerned about the long-term consequences for their education of travelling long distances.
- *College breaks:* Quantitative data revealed that after the Christmas break the number of students engaged in the Access programme decreased by 13 percent. According to interviewees, the breaks gave students an opportunity to earn money, which they may not have been willing to give up, and that other students had fallen behind in their studies and may have felt that there was no point in returning to the programme.

Educational factors affecting progression

The educational factors of having an end goal and attendance affected progression.

- *End goal:* Students intending to complete a level 8, 9, or 10 higher education course were significantly more likely to progress to undergraduate studies than those intending to engage in a level 6 or level 7 course. Moreover, students who were unsure of what modules they wanted to study at the beginning of the year had a significantly lower progression rate than their peers.
- *Attendance:* Students who progressed had a significantly higher Mann-Whitney mean rank for attendance than those who did not. Interviewees also noted that Access students who did not attend or had low attendance were less likely to progress.

Quantitative Model of Access Student Progression

A quantitative model of progression showed that three factors – housemates, attendance and working – affected progression. This model used the following equation:

$$\text{Logit (progressing)} = -0.608 + 2.299(\text{housemates}) - 0.126(\text{attendance}) + 1.626(\text{working})$$

With this equation, it was possible to determine whether students would progress or not 88.9 percent of the time.

Qualitative Model of Access Student Progression

A theoretical model of Access student progression was developed that includes 22 factors, divided into five categories. These factors were identified as statistically significant in the quantitative data or were identified as important by interviewees in the qualitative data (see Figure 1).

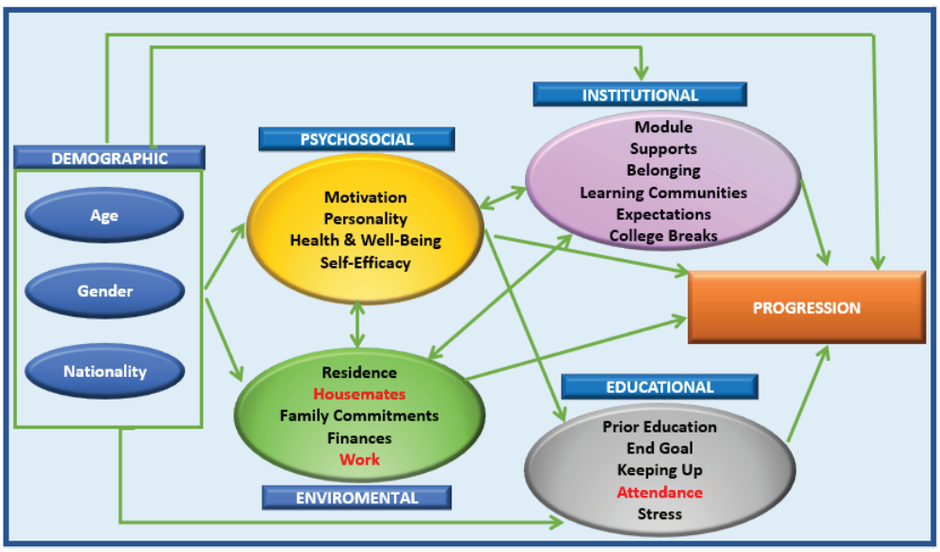


Figure 1 *Qualitative Model of Access Student Progression*

Recommendations

- Housemates and residence were identified in the quantitative and qualitative data as factors affecting progression. The quantitative data revealed housemates as a predictor of progression. Students who lived with a partner, a child or a friend were more likely to progress than those who lived with their parents or alone or those who were homeless. Policymakers should consider offering affordable housing or affordable student accommodation for Access Foundation students in order to alleviate some of the difficulties experienced by homeless Access Foundation students and to provide an opportunity for students to leave the family home and thereby support their progression.
- The quantitative data revealed that attendance was a predictor of Access Foundation student progression. Students with higher attendance rates were more likely to progress than their peers. Policymakers should consider what additional supports could be provided to ensure that external factors do not affect attendance.
- Working was also a predictor of progression identified by the quantitative data. Students who worked during the Access Foundation programme were less likely to progress to higher education. Interviewees highlighted the financial difficulties students faced, including lack of funds for living expenses, bus fares and lunch. Making the Student Universal Support Ireland (SUSI) grant available to Access Foundation students could help alleviate some of the financial difficulties students experience and could potentially increase progression rates.

- Family commitments forced some students to leave the Access Foundation programme. Providing childcare options would give some Access Foundation students the opportunity to remain in the programme.
- Further research is needed on how the proportion of mature students affects the progression of all students in the Access Foundation programme. The results of this study indicated that as the proportion of young adults increased in the Access programme, the rate of progression decreased.
- Further research is needed to examine what effects socio-economic status has on progression in the Access Foundation programme. Since belonging was highlighted as a factor affecting students from disadvantaged backgrounds, the research should address how students from such backgrounds can be helped to feel that they belong in the programme. This finding has implications for under-represented groups in higher education in Ireland and internationally, as students from lower socio-economic groups also find it more difficult to experience a sense of belonging in higher education.
- Mental health issues had a negative effect on Access Foundation student progression. All students, but particularly students suffering with mental health issues, should be reminded that their higher education institution offers a counselling service where students can discuss personal problems they are experiencing or academic difficulties. Mental health is something that needs to be addressed at the higher education level also.
- At the national level, consideration should be given to providing a programme similar to the Access Foundation programme to all students during their first year in higher education or during Transition Year in secondary education to allow them to sample different module choices. Access Foundation students who were unsure of their end goals were less likely to progress to higher education, and 35 percent of Access Foundation students changed modules during the programme. Changing modules is more problematic in higher education.

Introduction

For most students in Ireland, the route to higher education starts with an application to the Central Applications Office, the body charged with processing applications to first-year higher education courses at NFQ levels 6, 7 and 8 in Ireland (Central Applications Office, 2018). However, Irish universities and colleges have taken steps to widen participation in recent years (Access College Ireland, 2017). The Higher Education Authority (HEA) established the National Access Policy Office (NAPO) in 2003 to improve access to higher education for traditionally under-represented groups, particularly students who are socially, economically or culturally under-represented in higher education; mature students; students with disabilities; part-time students; and students who go to college on a further education qualification (HEA, 2015). For such students, Access programmes can offer an alternative route to higher education.

Access Programmes and Progression

Access programmes provide marginalized students, particularly those who are under-represented in higher education, with the academic and personal supports needed to succeed at third level. There are a variety of programmes at the international and national level to increase the participation of under-represented groups in higher education but the factors that affect their progression to undergraduate studies have not been investigated.

Aim of the Study

The empirical literature reveals that a variety of factors affect the progression of undergraduates to degree completion. However, there is a dearth of literature on the factors affecting the progression of Access students to undergraduate studies. Given that Access students in Ireland form a diverse group, including older students and socio-economically disadvantaged students, the factors that affect the progression of students in higher education may or may not be applicable to this group. The goal of this research is, therefore, to address the gap in the literature in relation to the progression of Irish Access students. Specifically, the study aims to address the following research question:

- *What are the factors affecting the progression of Access Foundation students to undergraduate studies?*

Objectives

The key objectives of the study are:

- To determine the factors that affect the progression of Access students to undergraduate studies
- To develop a quantitative and qualitative model of Access student progression
- To inform stakeholders involved in the policy and practice of Access education

Access Foundation Programme at TU Dublin

In 1999, Dublin Institute of Technology established an Access Foundation programme to help individuals and communities to overcome socio-economic barriers to accessing undergraduate studies (Dublin Institute of Technology, 2017). On January 1, 2019, Dublin Institute of Technology, the Institute of Technology Tallaght and the Institute of Technology Blanchardstown amalgamated to form Technological University Dublin (TU Dublin) (HEA, 2021), Ireland's first technological university. The Access Foundation programme has been operating at TU Dublin since its formation. This one-year programme aims to prepare students for entry to undergraduate studies. Participating students study core modules, as well as two optional modules each semester (Technological University Dublin, 2020b). Upon successful completion of the programme, students receive a Foundation Certificate level 6 on Ireland's National Framework of Qualifications.

Progression in Higher Education

Although access to higher education has increased in recent decades, there has not been a similar increase in college completion (Tinto, 2010). Involuntary withdrawal from higher education lowers a student's self-confidence and self-esteem, is a waste of university resources, and can damage the reputation of an institution (Ozga & Sukhnandan, 1998).

Given the lack of research on Access Foundation students, the factors affecting progression in higher education were considered. In 2016/17 – 2017/18, 10 percent of new entrants into Irish universities and 19 percent of new entrants to institutes of technology (IoTs) did not progress to the following year of study (HEA, 2020b). Based on the factors identified by the empirical literature, the factors affecting the progression of students in higher education are considered in this report under the five broad headings: demographic factors, psychosocial factors, environmental factors, educational factors and institutional factors.

Demographic Factors Affecting Progression

Three demographic factors that have been found to affect progression in higher education are age, gender and nationality.

Age. Mature students experience a variety of difficulties that hinder their progression in higher education, including financial, childcare, relationship and family problems (Lauder & Cuthbertson, 1998); external constraints; attending universities close to home, which may not provide the most appropriate course for them; out of date qualifications and lack of confidence in their academic abilities (McGiveny, 2004, p. 34); as well as a lack of IT skills, academic standards and time-management skills (Graham, 2015).

Data from the HEA reveals that mature students at universities and colleges of education are less likely to progress to the following year of higher education than their young adult classmates (HEA, 2020b). However, at IoTs, mature students have a slightly higher progression rate (82 percent) to the following year of higher education than young adults (81 percent) (HEA, 2016).

Gender. Marriage, hours worked and whether students are young adults or mature have an impact on the progression of both males and females in higher education (Leppel, 2002; Woodbyrne & Yung, 1998). In 2017/18, the first year of the current research, there were 44,124 new entrants to universities, colleges and IoTs in Ireland (HEA, 2018a). HEA statistics reveal that, overall, the number of female new entrants to higher education (22,936) was larger than the numbers of males (21,188), but in IoTs, male new entrants (10,652) outnumbered female new entrants (8,278). Data from the HEA show that when all full-time, part-time and remote enrolments for 2017/18 at HEA-funded institutions were considered, female enrolments outnumbered male enrolments by 117,196 to 111,745 (HEA, 2018a). These figures include foundation, Access, undergraduate and postgraduate students. Moreover, for all NFQ levels (apart from level 8 in colleges), women are more likely than males to progress to the next year of their studies.

Nationality. Recent years have seen the rapid expansion of higher education due to increases in geographic mobility and educational policies that favour increasing numbers of international students (Phakiti et al., 2013). In 2017/18, 3,060 new entrants to higher education in Ireland were non-Irish nationals (6.9 percent) (HEA, 2020c). In some sectors of Irish higher education, the non-progression rate of non-Irish nationals, students born outside Ireland, is lower than the non-progression rate of Irish students (HEA, 2020b). In 2016/17 – 2017/18, non-Irish nationals at level 6 and at universities were less likely than their Irish counterparts to progress from first to second year. Overall, however, non-Irish nationals had a slightly higher progression rate (see Table 1).

Table 1 *Progression in Higher Education by Nationality in 2016/17 – 2017/18*

Nationality	Level 6	Universities	All Institutions
Irish nationals	77%	92%	87%
Non-Irish nationals	67%	91%	90%

Source: Adapted from HEA (2020a)

Psychosocial Factors Affecting Progression

According to the empirical literature, a variety of psychosocial factors affect the progression of students in higher education. These factors include confidence, health and well-being, personality, motivation, and self-efficacy.

Confidence. There is a strong relationship between self-confidence and progression in education (Karimi & Saadatmand, 2014; Bickerstaff et al., 2012). Students' confidence changes constantly as they interact with peers, faculty and others (Bickerstaff et al., 2012) and can be increased through social interactions and constructive feedback (Norman & Hyland, 2003).

Health and well-being. Mental health disorders are prevalent among college students in Ireland, as elsewhere (Hunt & Eisenberg, 2010; Price & Smith, 2019). The National Forum for the Enhancement of Teaching & Learning in Higher Education found that in Ireland student non-progression for medical or health issues was related to mental health issues, isolation and pre-existing or newly acquired medical issues (Moore-Cherry et al., 2015).

Addiction also affects the progression of students in higher education. Alcohol and drug use result in academic problems because students' attendance suffers and progression may be affected (Arria et al., 2013; Department of Education and Skills, 2019).

Personality. Personality traits have been found to play a role in determining a student's educational attainment and progression in higher education. The positive link between conscientiousness and academic performance or progression in higher education has been documented by several researchers (Lenton, 2014; van Eijck & de Graaf, 2004). Many studies contend that neuroticism has a negative effect on academic performance in higher education (Chamorro-Premuzic & Furnham, 2003; Laidra et al., 2007). Moreover, openness is positively related with educational attainment (Lenton, 2014). However, researchers are divided on the effects of extraversion on academic achievements (Ciorbea & Pasarica, 2013) and a relationship between agreeableness and academic success has rarely been found (Burton & Nelson, 2006).

Motivation. In an educational context, "motivation is a student's energy and drive to learn, work hard, and achieve at school" (Martin, 2001, p. 1). Motivation is usually a mix of different forms of intrinsic and extrinsic motivation that are all experienced simultaneously (Moller, 2020). Some researchers contend that lower intrinsic motivation negatively affects student performance (Augustyniak et al., 2016) and their progression in education (Vallerand et al., 1997), while others contend that extrinsic motivation is also important (Vallerand et al., 1992).

Self-efficacy. "Perceived self-efficacy is concerned with people's beliefs in their ability to influence events that affect their lives" (Bandura, 1994, p. 71). Students' self-efficacy affects their college course choices and their career choices (Pajares, 1996). Students with higher self-efficacy are better able to learn the new skills they need to succeed (Schulze & Schulze, 2003). Students who fail to progress generally have lower self-efficacy scores than their classmates who progress (Devonport & Lane, 2006; Holder, 2007). There is evidence that mature students have higher self-efficacy than their young adult peers (Erb & Drysdale,

2017). Given the high proportion of mature students in Access programmes, higher self-efficacy may prove to be a factor in the progression of Access students, particularly mature students.

The six psychosocial factors that affect the progress of students in higher education may also affect the progression of Access students to undergraduate studies (see Figure 2).

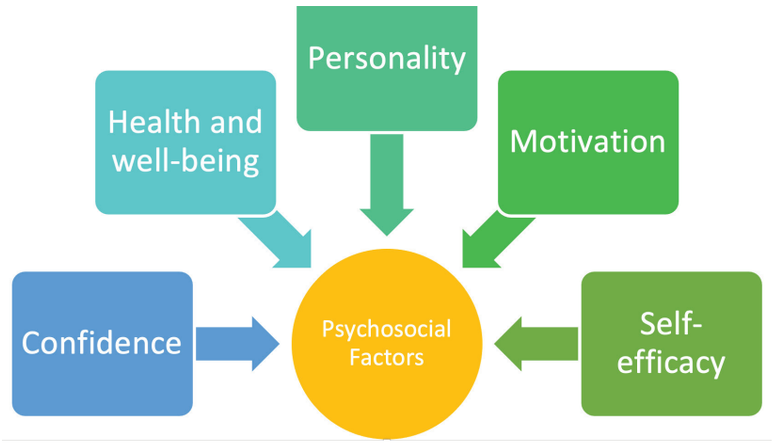


Figure 2 *Psychosocial Factors Affecting Progression in Higher Education*

Environmental Factors Affecting Progression

A variety of environmental factors affecting the progression of higher education students have been identified in the literature, including finances, working during higher education, personal and institutional supports, and family commitments and responsibilities.

Finances. Funding is a major priority for most students (Fleming & Finnegan, 2011), with several research studies showing that finances play a role in whether students progress in higher education (Bennett, 2003; Graham, 2015; McGivney, 2004). Financial aid has a positive effect on progression (Byrne & Cushing, 2015; Hoare & Lightfoot, 2015), but when families contribute financially to college expenses, students are more likely to progress in higher education (Olbrecht et al., 2016). McCoy et al. (2010) found that Irish higher education students who receive financial aid display greater progression rates than those who do not receive such support, possibly because students were not as reliant on part-time work, "particularly more intensive work which is likely to impact on academic time" (p. 135).

Working during higher education. Some students try to balance part-time work with studying full time. Research on the impact of working on college students' academic performance is inconclusive (Tessema et al., 2014). Some studies contend that work has a negative effect (Metcalf, 2003), or a positive effect (Tessema et al., 2014), on student performance.

Personal supports. There is a significant relationship between students' perceptions of the social supports they received and their performance in higher education (Cutrona et al., 1994). Families support students' commitment to attain their goal of graduating from higher education, and this commitment affects their likelihood of progressing (Strom & Savage, 2014). Students from lower socio-economic groups may be at a disadvantage because, although their parents support their children's wish to go to college, they may not be able to offer them guidance because they do not have the cultural capital to do so (Symeou, 2007).

Peers and teachers have a role to play in supporting students in higher education. In the first year of higher

education, peers provide students with emotional and cognitive support (McSweeney, 2014), and if they are to progress beyond first year in higher education, students need compatible friends who provide emotional support and support them in stressful situations (Wilcox et al., 2005). Teacher–student relationships also affect students' successful progression in higher education (Hagenauer & Volet, 2014; Wilcox et al., 2005).

Family commitments and responsibilities. Mature students have many roles and responsibilities with corresponding emotional and financial burdens that constrain their decision to enter higher education in the first place (Osbourne & Young, 2006). Students who are parents are substantially more likely to fail to progress (Cruse et al., 2018), and student single-mothers are most likely to be negatively affected (Lyonette & Crompton, 2015). According to Moore-Cherry et al. (2015), family commitments that can affect students' progression in higher education include a major family incident, a difficulty in the family, or feeling lonely and wanting to be closer to home and family.

The four environmental factors which affect progression in higher education – finances, working during education, personal and institutional supports ,and family commitments and responsibilities (see Figure 3) – may also affect the progression of Access students to undergraduate studies.

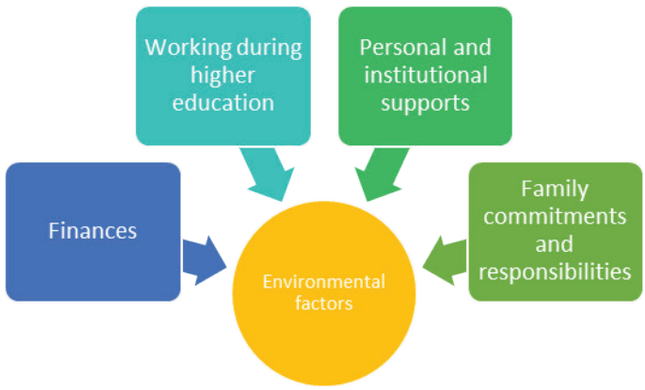


Figure 3 *Environmental Factors Affecting Progression in Higher Education*

Educational Factors Affecting Progression

Prior academic experience, student goals, attendance, workload, and stress are educational factors that affect the progression of students in the Access Foundation programme.

Prior academic experience. Past academic performance is a predictor of success in college (Faulkner et al., 2010; Harackiewicz et al., 2002; HEA, 2020b; Richardson et al., 2012). Students who complete the Leaving Certificate examination receive points, up to a maximum of 625, based on their results (Central Applications Office, 2020). From 2016/17 – 2017/18, Irish students with 155–200 points in the Leaving Certificate had a progression rate of 66 percent, compared to a progression rate of 96 percent for students who had Leaving Certificate scores of 555–600 points (HEA, 2020b). Figure 4 shows a strong positive correlation between progression and Leaving Certificate points (correlation coefficient of 0.957, $p < 0.001$).

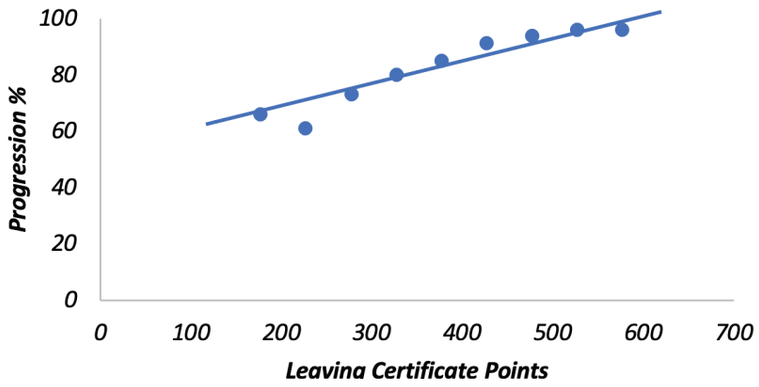


Figure 4 *Progression as a Function of Leaving Certificate Points 2016/17 – 2017/18*

Source: Data obtained from HEA (2020b)

Student goals. Setting goals increases effort, improves progression, and results in greater success in achieving what the individual set out to achieve (Pearson Education Inc., 2016). Individual goals have a significant effect on students' engagement and intentions to progress (Hatch & Garcia, 2017). Data from the Beginning Postsecondary Students Longitudinal Study of 1996–2001 in the US revealed that participants attending a community college to meet their goal of obtaining a degree or certificate were more likely to achieve their goals than students who attended higher education to develop job skills (Bailey et al., 2005).

Attendance. There are mixed results on the relationship between attendance and students' academic performance (Cleary-Holdforth, 2007). Some researchers have found a positive correlation between attendance and academic achievement (Davis, 2011; Halpern, 2007; Paisey & Paisey, 2004), while some have found no correlation between the two (Rodgers, 2002). Other researchers have found a negative correlation between attendance and progression (Davis, 2011; Kelly, 2012).

Workload. Workload can be defined as "a mental construct that reflects the mental strain resulting from performing a task under specific environmental and operational conditions, coupled with the capability of the operator to respond to those demands" (Cain, 2007, p. 3). Workload has been identified as one of the most common reasons students give for thinking about failing to progress in higher education (Xuereb, 2014). Academic activities with the highest workload for students are individual study, attending lectures, engaging in groupwork outside the classroom, and participating in practical subjects (Rubio-Valdehita et al., 2014).

Stress. Students experience a variety of stressors, including academic stress, stress related to finances and work, stress related to personal and family factors, stress in their interpersonal relationships, social support stress, stress in maintaining a balance between university and life, and the stress of starting a university course (Pitt et al., 2017). Students who are better able to manage these stressors are more likely to progress in higher education than those who are not (Parker et al., 2006). Pitt et al. (2017) found that some stressors were worse at different times of the semester and that the beginning and end of a semester are the most dangerous times for stress to have negative consequences.

Educational factors (see Figure 5) have been found to play a role in the progression of higher education students and may affect Access student progression also. The empirical research also shows that the higher education institution (HEI) itself has a role to play in student progression and so this research will be considered next.

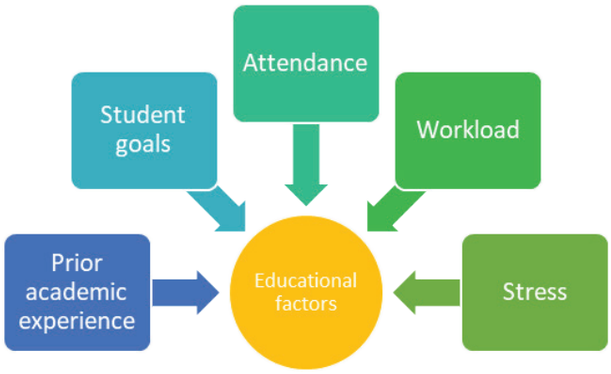


Figure 5 *Educational Factors Affecting Progression in Higher Education*

Institutional Factors Affecting Progression

The empirical literature reveals that factors such as course of study, higher education support services, teaching styles, the social environment of the institution, and the location of the HEI can affect students' progression in higher education.

Course of study. Poor choice of course has been identified as a major cause of student non-progression in various countries (Bean & Metzner, 1985; Johnston, 1997; Moore-Cherry et al., 2015; Tinto, 2012). Even when students do know what course they wish to study, they may not get their first choice because of limited availability of places on that course. Students who accept a higher education course that is not their first choice are more likely to fail to progress (Bernardo et al., 2016). The problem may be greater in some courses than in others as progression rates vary significantly depending on course of study (HEA, 2020b), with services and information and communication technologies having the highest non-progression rates in 2016/17.

Higher education support services. A range of well-resourced and appropriate supports and services that are easy to access facilitate student success (O'Farrell, 2019). Students who engage with support services are more likely to progress in higher education (DeNicco et al., 2015; Fike & Fike, 2008), including at-risk higher education students (Laskey & Hetzel, 2011). Many HEIs provide a variety of supports for students, including special small classes, assigned tutors, and programmes to teach reading and study skills (Abrams & Podojil Jernigan, 1984), as well as a range of academic supports, including English language supports, mathematics supports and reading and writing supports (Bettinger et al., 2013). Higher education institutions also offer counselling services, career development services, chaplaincy services, finance services, disability services and health services (Technological University Dublin, 2020a). Research suggests that, despite the range of support services, students do not always access these services (Quinn et al., 2005). However, students who use support services and counselling adjust better socially to higher education, and socially adjusted students are more committed to obtaining a degree (Grant-Vallone et al., 2003). Student supports also play a vital role in engaging students and helping them to progress (Barbatis, 2010; Coates & Ransom, 2011).

Lecturers. According to Tinto (2012), students who are academically and socially more engaged with higher education staff are more likely to succeed academically. Similarly, research indicates that teacher–student relationships affect students' successful progression in higher education (Hagenauer & Volet, 2014; Wilcox et al., 2005).

Social environment of the higher education institution. One of the strongest motivations is a sense of belonging in an environment (Baumeister & Leary, 1995). According to Hagerty et al. (1992), a sense of belonging is the feeling of being an "integral part" of an environment. Social integration affects progression in higher education as much as academic integration (Gerdes & Mallinckrodt, 1994; Tinto, 1975). The more students are involved in the life of the HEI, particularly the academic life of the HEI, the more they acquire knowledge and develop skills (Tinto, 1997). However, Soria and Bultmann (2014) found that, in comparison, students from lower socio-economic groups find it more difficult to experience a sense of belonging in college, see the climate of the HEI as less welcoming, and are less likely to engage in the social life of the HEI. Not all researchers see social integration as a critical part of the student experience, however. Bean & Metzner (1985) see social integration into higher education as less important for mature students than for young adults.

Location. The location of a HEI can be a factor in students' decisions about where to study. Jepson and Montgomery (2009) found that distance was a highly statistically significant factor in students' decisions about enrolling in community college and which school to choose. Similarly, in Ireland, travel distance can negatively affect participation in higher education by individuals of low socio-economic status, particularly lower-ability students from lower socio-economic groups (Cullinan et al., 2013).

Although these institutional factors (see Figure 6) have been identified as affecting the progression of higher education students, they may also affect Access student progression.

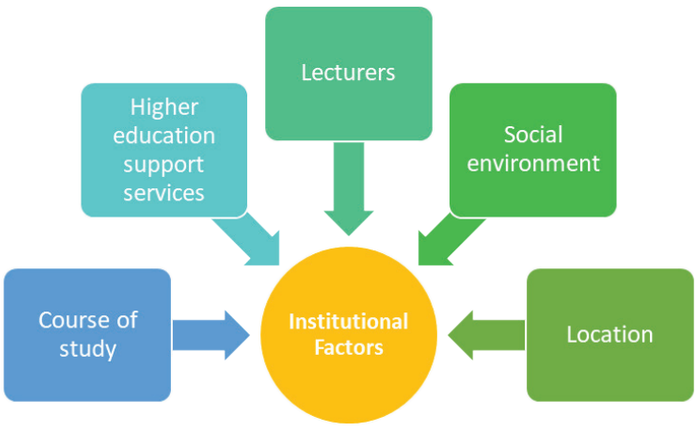


Figure 6 *Institutional Factors Affecting Progression in Higher Education*

Theories Related to Progression

No theories or models currently exist that have been designed specifically with Access students in mind. As such, this report drew on theories and models that have been used in a variety of settings that are related and applicable to the context of this research. They thus offer potential for use in a study of Access students. The current study is informed by Tinto's (1975; 1993) Student Departure Theory and Bean and Metzner's (1985) Undergraduate Student Attrition Model.

Tinto's Student Departure Theory. In developing his Student Departure Theory, Tinto turned to the field of social anthropology and specifically the work of Dutch anthropologist Arnold van Gennep (Tinto, 1993). According to Tinto, van Gennep's (1908) work on so-called rites of passage, or the process of moving from being a youth to full membership of society, is related to the process of student departure. Tinto (1975; 1993) draws on Durkheim's idea of egotistical suicide, or lack of integration into the higher education community, and anomic suicide, lack of regulation by the higher education community (Godor, 2017). He contends that both suicide and departure from higher education can be seen as the voluntary withdrawal from a community.

Tinto's Student Integration Model. One of the earliest theoretical models of student progression, the SIM (Tinto, 1975) focuses on the extent to which the individual is integrated into the social and academic aspects of the university, the student's commitment to obtaining their degree and the student's commitment to the university (McCubbin, 2003). In the SIM, Tinto (1975) contends that students bring a variety of background characteristics, such as family background, personal attributes, and pre-college educational experiences, to the higher education environment and that these characteristics affect the student's commitment to the institution and their goals. The SIM is outlined in Figure 7.

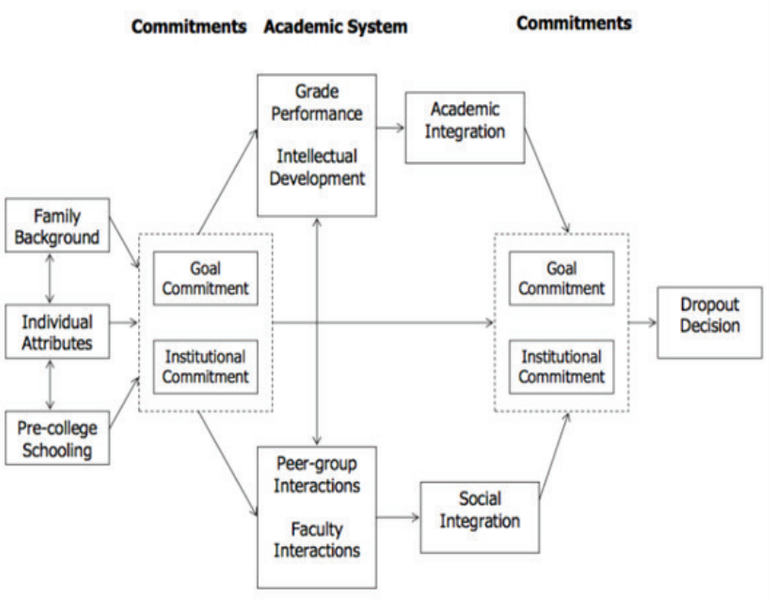


Figure 7 *Tinto's Student Integration Model*
Adapted from Tinto (1975)

In a 1993 book, Tinto outlined a revised theoretical model. His revised model views individual failure to progress as a longitudinal process of interaction between an individual, who has pre-entry attributes and goals/commitments, and the academic and the social experiences in the higher education institution. Tinto contended that several causes, which he calls "roots", affect progression in higher education. These roots are "intention, commitment, adjustment, difficulty, congruence, isolation, obligations and finances" (Tinto, 1993, p. 81).

Although Tinto stands by the core elements of his model, over time he has changed the focus of his research to highlight the importance of the classroom in progression (McCubbin, 2003). Tinto (1997) contends that classrooms are smaller communities of learning, providing academic and social meeting places for the higher education institution's diverse faculty and student communities.

Empirical studies largely support Tinto's SIM (Brunsden et al., 2000). The model has been validated across different institutions and with different student populations (Cabrera et al., 1993). Terenzini and Pascarella (1977) found that academic and social integration were significantly and independently related to voluntary progression and that the contributions of these two constructs were approximately equal.

However, there have been criticisms of the model (Brunsden et al., 2009). One criticism has come from McQueen (2009), who contends that, although Durkheim's (1897) model of suicide, which forms the basis for Tinto's (1975) model, highlights the importance of social structure on individuals' actions, it is not appropriate for Tinto to use it in the context of education. However, there are "enough intriguing analogies" (Tinto, 1993, p. 99) between suicide and student departure from higher education institutions to warrant investigation. Godor (2017) suggests that Durkheim's contention that suicide is caused by tendencies within societies themselves can be used as an analogy for examining the social tendencies in academic communities that non-traditional students find constraining or illegitimate.

Other researchers contend that the SIM is only applicable to traditional students (McCubbin, 2003). Metzner and Bean (1987) found that non-traditional students (older, part-time undergraduates who live off campus) fail to progress because of academic factors or a lack of commitment to the higher education institution, but not necessarily because of social factors. However, other researchers contend that academic and social integration are important for non-traditional students (Chrysikos et al., 2017). Ashar and Skenes (1993) found that the social environment is important for adult students and that adult learners in smaller classes that are socially integrated are more likely to progress. Additionally, Davidson and Wilson (2013) found that campus relationships affect progression, although they indicated the need to clarify the distinction between academic and social integration for non-traditional students.

Notwithstanding the research indicating the positive effects of social environments on non-traditional student progression, given the high percentage of mature students in the Access Foundation programme, Bean and Metzner's (1985) attrition model for non-traditional students also underpins the current research. Recognizing the increasing number of mature students in higher education, Bean and Metzner (1985) developed a conceptual model of student dropout for undergraduate students who are older, part-time and do not live on the college campus. They noted that, although young adult students attend college for academic and social reasons, academic reasons are most important for mature students. In Bean and Metzner's model, a student's decision to drop out is based on four variables: their academic performance, intent to leave, background and defining variables, and dropout (1985, p. 490).

Methodology

This longitudinal study was conducted with three cohorts of Access Foundation students over three academic years: 2017/18, 2018/19 and 2019/20. It was guided by the following general research question: What are the factors affecting the progression of Access Foundation students to undergraduate studies? Based on the general research question, the research outlined in the literature review, and the theories that underpin this study, the following specific research questions were considered when examining the factors that affect the progression of Access Foundation students to undergraduate studies.

1. *What effect, if any, do demographic factors have on the progression of Access Foundation students to undergraduate studies?*
2. *What effect, if any, do psychosocial factors, have on the progression of Access Foundation students to undergraduate studies?*
3. *What effect, if any, do educational factors have on the progression of Access Foundation students to undergraduate studies?*
4. *What effect, if any, do institutional factors have on the progression of Access Foundation students to undergraduate studies?*
5. *What effect, if any, do environmental factors have on the progression of Access Foundation students to undergraduate studies?*
6. *How can the factors that have been found to affect the progression of Access Foundation students to undergraduate studies be organized into a theoretical model?*

This study adopted an alternative to the relativist and realist ontologies, an approach that recognized both singular and multiple realities. Epistemologically, it incorporated both objective and subjective stances. A pragmatic approach allowed consideration of students' different realities in relation to the Access Foundation programme and allowed the researcher to gain an understanding of students' progression from the Access Foundation programme to undergraduate studies.

Ethical approval for this study was obtained from the ethics committee at Dublin Institute of Technology (now TU Dublin) and the informed consent of participants was obtained. The questionnaire was pilot-tested by the coordinator of the Access Foundation programme and former students of the programme, who were recruited using a convenience sample.

A mixed-methods approach was adopted using an explanatory sequential approach. A quantitative phase followed by a qualitative phase allowed the researcher to first determine the factors affecting the progression of Access Foundation students to undergraduate studies and then how and why those factors affected students.

A census was conducted to collect quantitative data. Participants completed a 29-item questionnaire at the beginning of their Access Foundation programme studies. Over the three years of the study, 184 questionnaires were completed for a response rate of 67 percent. This data was used to provide a snapshot of students' characteristics as they entered the programme. The questionnaire included four validated scales: Vallerand et al.'s (1992) Academic Motivation Scale (AMS), Guiffrida et al.'s (2008) Need for Relatedness at College Questionnaire (NRC-Q), Schwarzer and Jerusalem's (1995) General Self-Efficacy Scale, and John & Srivastava's (1999) Big Five Inventory of personality traits.

At the end of the academic year, qualitative data was collected through semi-structured one-to-one interviews. A grounded theory was used to analyse the data, because such an approach allows the generation of theory from data in a systematic and interpretive way. Strauss and Corbin's (1990) coding

method, which involves the three phases of open, axial and selective coding, was adopted. Open codes break down data analytically, comparing the data and creating a conceptual label; axial coding involves relating categories to their subcategories and further developing categories; and selective coding involves unifying categories around "a 'core' category" (Strauss & Corbin, 1990, p. 14). A theoretical sampling approach was employed in which the concepts developed from the initial data inform the collection of future data. Over the three years of the study, 24 Access Foundation students participated in interviews. Interviews were conducted until saturation was achieved.

Students were deemed to have progressed to higher education if they were offered a place on an undergraduate course upon successful completion of the Access Foundation programme.

Quantitative Findings

Quantitative findings in relation to demographic, psychosocial, educational, environmental and institutional factors are provided below.

Demographic Factors

Ninety-one female students and 93 male students participated in this research over the three-year period under investigation, and progression to undergraduate studies was independent of gender (χ^2 = .424, df = 1, p = .515). Participants ranged in age from 17 to 59 years. Eighty were young adults and 104 were mature students. Although there was no significant difference in the number of male and female students in the programme overall, there were more than twice as many male students (25 students) as female students (12 students) in the 28–38 age group (see Figure 8).

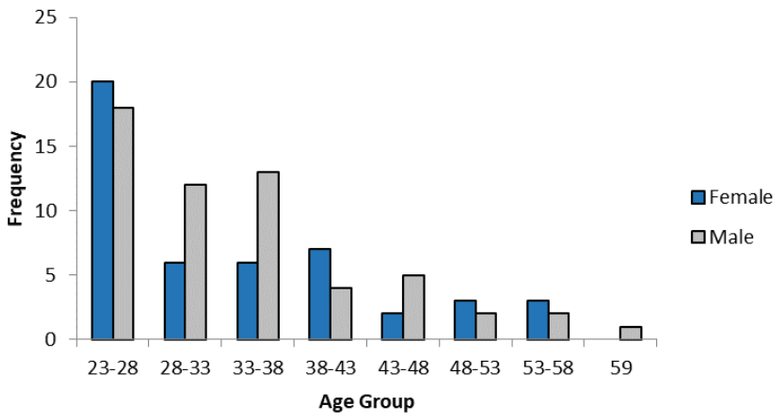


Figure 8 *Access Foundation Students by Age Group and Gender*

There was no significant association between progression and age overall (χ^2 = 1.19, df = 1, p = .276). However, progression rates differed over the three years of the study and for young adult and mature students (see Table 2).

Table 2 *Comparison of Progression Rates by Year of Study*

Year of Study	Progression Rate Total (%)	Progression Rate Young Adults	Progression Rate Mature
Year 1 and Year 2 (2017/18 and 2018/19)	75	71	76
Year 3 (2019/20)	42	42	44

Students were significantly more likely to progress to undergraduate studies in the first two years of the study than in the third (χ^2 = 15.37, df = 1, p < .001).

Nationality. Most participants in the Access Foundation programme over the three years under study were Irish nationals (63 percent). The remaining 37 percent of students were considered non-Irish nationals, and represented 39 different nationalities. Students who identified as non-Irish nationals had been in Ireland for between one and 21 years. Most non-Irish nationals who participated in the study were aged 18–38 years (60 percent), 43 percent were young adults and 57 percent were mature students (see Figure 9). Seventy percent of young adult non-Irish nationals were female, a significant gender difference (χ^2 = 4.36, df = 1, p = .037).

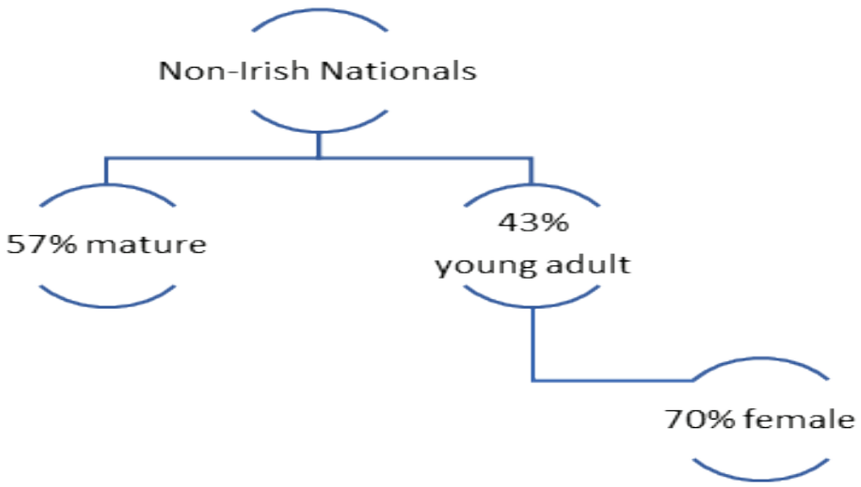


Figure 9 *Percentage of Non-Irish Nationals by Age and Gender*

Sixty-nine percent of non-Irish nationals progressed to undergraduate studies and 61 percent of Irish nationals did so (see Table 3). This difference was not statistically significant (χ^2 = 1.11, df = 1, p = .293). Mature Irish nationals had a progression rate of 61 percent and mature non-Irish nationals had a progression rate of 78 percent (χ^2 = 2.96, df = 1, p = .086).

Table 3 *Progression Rates of Access Foundation Students by Nationality and Age*

Progression	Progression (percent)
Irish Nationals	61
Non-Irish Nationals	69
Mature Irish Nationals	61
Mature Non-Irish Nationals	78

Native language. In total, 63 percent of participating students spoke English as their first language. The remaining 37 percent of students identified a total of 31 different languages as their first language. Moreover, students who spoke English as a second language were significantly more likely to progress to undergraduate studies than their peers (χ^2 = 7.59, df = 1, p = .006).

Socio-economic status. An analysis of student socio-economic status using Pobal Maps' Deprivation

Index revealed that 38.9 percent of Access Foundation students lived in areas that are a mix of advantaged and disadvantaged, 6.1 percent lived in areas that are affluent, 42.2 percent in areas that are mainly disadvantaged, and 12.8 percent in areas that are marginally above average (see Table 4). Young adult students were significantly more likely to live in disadvantaged areas than mature students ($\chi^2 = 14.93$, df = 1, $p < .001$).

Table 4 *Socio-Economic Status of Mature and Young Adult Access Foundation Students*

Socio-Economic Status (Ordinal variable)	Mature Frequency	Young Adults Frequency
Affluent	8	3
Above average	16	7
Mixed	47	23
Disadvantaged	30	46

Overall, there was no significant difference in progression based on the area where Access Foundation students lived ($\chi^2 = 1.936$, df = 3, $p < .586$). However, mature students who lived in affluent, marginally above-average and mixed areas had significantly higher progression rates to undergraduate studies than young adult students who lived in similar areas $\chi^2 = 3.55$, df = 1, $p < .06$).

Psychosocial Factors

The psychosocial factors of motivation, need for relatedness and self-efficacy were examined in the current study.

Motivation. Intrinsic motivation, extrinsic motivation and amotivation were measured using the AMS (Vallerand et al., 1992). Overall, there was no statistically significant difference in scores for motivation between students who progressed and those who did not. However, young adults had a significantly higher median score for extrinsic motivation than mature students ($U = 3531.5$, $p = .013$). Moreover, mature non-Irish nationals had a significantly higher median score for amotivation than mature Irish nationals ($U = 1272$, $p = .028$).

Need for Relatedness. The NRC-Q (Guiffrida et al., 2008) was used to examine Access Foundation students' 'need for relatedness' or need to connect with other people (Johnston & Finney, 2010). The NRC-Q measures participants' need for relatedness with peers and faculty, their need to give back to family and friends at home ('need to give back at home') and their need to keep up with friends and family at home ('need to keep up at home'). Overall, there was no statistically significant difference in scores for 'need for relatedness with peers' ($U = 3016$, $p = .827$), 'need for relatedness with faculty' ($U = 2856.5$, $p = .346$), 'need to give back at home' ($U = 2678$, $p = .699$) and 'need to keep up at home' ($U = 2831$, $p = .691$) between students who progressed and those who did not (see Table 5).

However, compared with Irish nationals, non-Irish nationals had significantly higher mean ranks for 'need for relatedness with peers' ($U = 4036.5$, $p < .05$), 'need for relatedness with faculty' ($U = 2798$, $p = .059$),

'need to give back at home' (U = 2541, p = .080) and 'need to keep up at home' (U = 2562, p = .024).

Moreover, compared with female students, male Access Foundation students had a significantly higher median score for 'need for relatedness with peers' (U = 4211, p = .084) and mature male students had a significantly higher median score for 'need for relatedness with faculty' than mature females (U = 888, p = .038). Young adults had a significantly higher mean rank for 'need for relatedness with peers' than mature students (U = 2247, p < .001).

Table 5 *Need for Relatedness by Gender, Age and Nationality*

Relatedness	Gender	Age	Nationality
Need for relatedness with peers	Males higher U = 4211, p = .084	Young adults higher U = 2247, p < .001	Non-Irish nationals higher U = 4036.5, p < .05
Need for relatedness with faculty	Mature males higher U = 888, p = .038		Non-Irish nationals higher U = 2856.5, p = .346
Need to give back at home			Non-Irish nationals higher U = 2678, p = .699
Need to keep up at home			Non-Irish nationals higher U = 2831, p = .691

Personality Traits

The Big Five Inventory (John & Srivastava, 1999), a 44-item questionnaire that examines five broad dimensions of personality, was used to establish the personality traits that affected the academic performance and subsequently the progression of Access Foundation students to undergraduate studies. The Big Five Inventory examines extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Soto & Jackson, 2013).

Findings revealed no significant difference in progression depending on extraversion (U = 2592, p = .972), agreeableness (U = 2209.5, p = .841), conscientiousness (U = 2042.5, p = .165), neuroticism (U = 2703.5, p = .774) or openness to experience (U = 2160.5, p = .087). However, young adults had a significantly higher median score for extraversion than mature students (U = 1966, p < .001), and young adult females had significantly higher mean ranks for conscientiousness (U = 393.5, p = .026), neuroticism (U = 451, p = .045) and openness than young adult males (U = 391, p = .073). Female students had significantly higher mean ranks for agreeableness than male students overall (U = 2072, p = .008).

Non-Irish nationals had significantly higher median scores for conscientiousness than Irish nationals (U = 1488.5, p < .001); Irish nationals had significantly high scores for neuroticism than non-Irish nationals (U = 2413.5, p = .089); and non-Irish nationals had significantly higher median scores for openness than Irish

nationals (*U* = 1966, *p* = .011).

Mature students who progressed had a significantly higher median score for conscientiousness than students who failed to progress (*U* = 481.5, *p* = .023); young adults who progressed had significantly higher neuroticism scores than their peers (*U* =420.5, *p* = .053); and young adult students who progressed had a significantly higher mean rank for agreeableness than those who did not progress (*U* = 339, *p* = .083).

Table 6 *Personality Traits and Progression*

Personality Traits	Scores
Extraversion	
Agreeableness	Higher for young adults who progressed: *U* = 339, *p* = .083
Conscientiousness	Higher for mature students who progressed: *U* = 481.5, p = .023
Openness	
Neuroticism	Higher for young adults who progressed: *U* =420.5, *p* = .053

General self-efficacy. Overall, there was no significant difference in GSE scores for students who progressed and those who did not (*U* = 2815.5, *p* = .425) (see Table 7). However, non-Irish nationals had significantly higher scores for GSE than Irish nationals (*U* = 4034, *p* = .007), both for mature students (*U* = 1261, *p* = .046) and young adults (*U* = 785, *p* = .067).

Table 7 *General Self-Efficacy Scores Related to Progression, Age, Nationality and Gender*

	General Self-Efficacy		
	All Students	Mature Students	Young Adults
Progression	*U* = 2815.5, *p* = .425	*U* = 752.5, *p* = .113	*U* =705, *p* = .348
Nationality	*U* = 4034, *p* = .007	*U* = 1261, *p* = .046	*U* = 785, *p* = .067
Gender	*U* = 3382, *p* = .555	*U* = 1072, *p* = .758	*U* = 634, *p* = .643

Environmental Factors

The environmental factors examined in the current study included Access Foundation students' residence, their housemates, family commitments, finances and work commitments during the Access Foundation programme

Residence. Access Foundation students were most likely to live in their parents' home (51.1 percent) or rented accommodation (33.2 percent) (see Table 8). Young adults were most likely to live in their parents' home (78 percent) and non-Irish nationals were most likely to live in rented accommodation (60 percent).

Table 8 *Access Foundation Student Residences in 2017/18, 2018/19 and 2019/20*

Residence	Mature students	Young adults	All students	Percent
Own home	22	2	24	13
Parents' home	32	62	94	51.1
Rented accommodation	46	15	61	33.2
Emergency accommodation	4	1	5	2.7
Total	104	80	184	

The data from the current study show that students who lived in rented accommodation were more likely to progress than those who lived with their parents or in their own home. In fact, 75 percent of Access Foundation students who lived in rented accommodation progressed to undergraduate studies, compared with 65 percent of Access Foundation students who lived in their own home, 59 percent who lived in their parents' home, and 20 percent of those who lived in emergency accommodation. A chi-square test indicated that progression is dependent upon where students live (χ^2 = 4.15, df = 1, p = .042).

Housemates. Access Foundation students had a variety of housemates (see Table 9). Fifty-one percent of male Access Foundation students and 54 percent of female students lived with their parents. However, females were more likely to live with a child or children (16 percent) than males (8 percent). Additionally, males were more likely to live alone (17 percent) than females (6 percent). Young adults were more likely to live with their parents (80 percent) and mature students were more likely to live with a spouse or child (36 percent). Non-Irish nationals were most likely to live with their parents (40 percent), but 19 percent lived with a spouse or partner and 13 percent lived alone.

Table 9 *Access Foundation Students' Housemates*

Housemates	Frequency
No-one	21
Parents	97
Spouse/partner	20
Child/children	37
Other relatives	11
Friends/other students	8
Other	4

Access Foundation students living with a spouse or partner, living with a child, or living with other students were significantly more likely to progress to undergraduate studies (χ^2 =7.0, df = 1, p = .030) than Access students who lived with parents or another relative.

Family commitments. Twenty-two percent of participants were caregivers. The percentage of female caregivers (58 percent) was slightly higher than that of male caregivers (42 percent). Additionally, mature students (83 percent) were significantly more likely to be parents than young adults (17 percent) (χ^2 = 16.96,

df = 1, $p < .001$). The rate of progression for students who cared for a child or children was 70 percent overall and there was no difference in progression between students who were caregivers and those who were not (χ^2 =.968, df = 1, $p = .325$).

Finances. The data show that 53 percent of participants were receiving some form of financial support. Social welfare was the most common financial support. However, some Access Foundation students received the Back to Education Allowance (BTEA). The BTEA is an allowance for individuals over 21 years of age, individuals who are aged 18–21 years who have been out of formal education for two years or more, and individuals with disabilities over 18 years who are receiving certain social welfare benefits. Mature students were significantly more likely to obtain financial support than young adults (χ^2 = 23.70, df = 1, $p <$ .001) and Irish nationals were significantly more likely to obtain financial support than non-Irish nationals (χ^2 = 4.08, df = 1 $p = .043$). However, there was no significant difference in progression based on financial support overall (χ^2 = .119, df = 1, $p = .730$).

Work commitments. Although 72 percent of Access Foundation students did not expect to have a paid job while at college, the remaining 28 percent of students worked. There was no association between age and working (χ^2 = 1.6, df = 1, $p = .206$), working and gender (χ^2 = 1.9, df = 1, $^p = .666$) or nationality and working (χ^2 = .753, df = 1, $p = .386$). There was no significant difference in progression between those who worked and those who did not (χ^2 = .26, df = 1, $p = .607$).

Institutional Factors

The institutional factors of modules, changing modules and travel distance to the Access Foundation programme were examined in this research.

Modules. All Access Foundation students must study Introduction to Applied Writing, Introduction to Communication, Introduction to Higher Education, and Study Skills modules. They were assigned to an MS Office Applications (44 percent) or IT Technical Applications modules (56 percent) depending on their optional module choice. Students chose a mathematics module based on the entry requirements for their undergraduate course. During this study, 25 percent of Access Foundation students enrolled in Fundamental Mathematics, 64 percent enrolled in Intermediate Mathematics, and 11 percent enrolled in Advanced Mathematics. Males were significantly more likely than females to enrol in Advanced Mathematics (χ^2 = 4.89, df = 1, $p = .028$).

Access Foundation students also study two optional modules each semester. The most popular optional module for Access Foundation students in Semester 1 was Introduction to Social Science, with Art Portfolio Preparation being the least popular choice (see Figure 10).

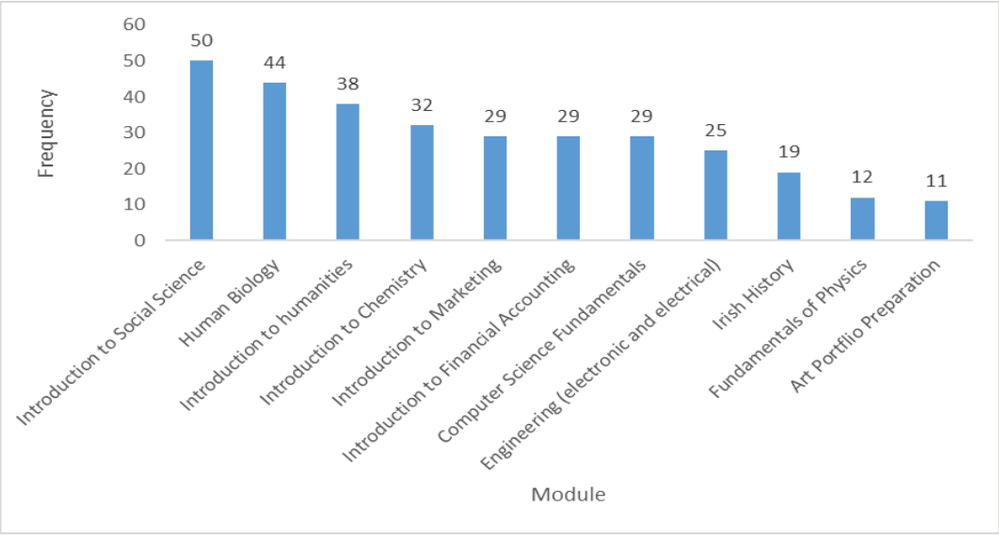


Figure 10 *Optional Module Choices of Access Foundation Students in Semester 1*

In semester 2, Applied Social Science was the most popular module choice (45 students), followed by Introduction to Management (36 students) and Cell Biology and Genetics (35 students) (see Figure 11). Art Portfolio Preparation had the least number of Access Foundation students (10 students), followed by Applied Physics (13 students) and Mechanical Engineering (21 students).

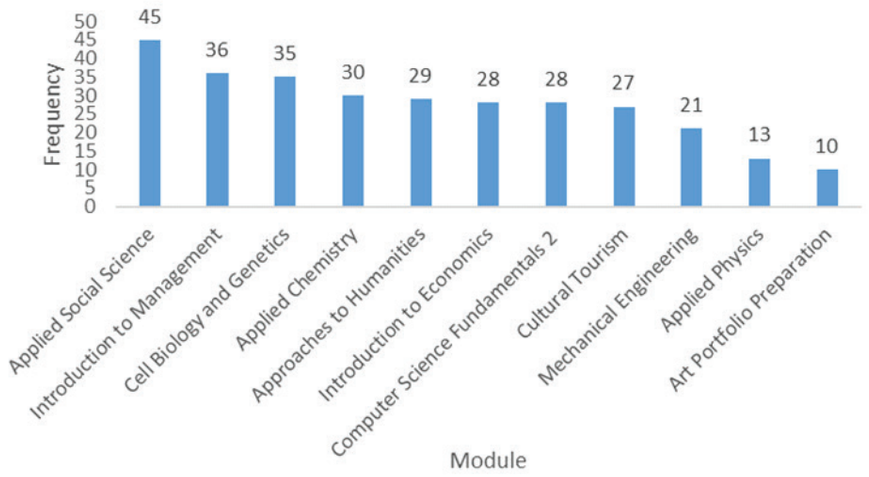


Figure 11 *Optional Module Choices of Access Foundation Students in Semester 2*

Progression rates differed depending on the optional modules Access Foundation students chose. For example, in Semester 1, 91 percent of students who enrolled in Art Portfolio Preparation progressed to undergraduate studies, whereas 55 percent of students who enrolled in Introduction to Marketing did so. Similarly, in Semester 2, students studying Introduction to Management and Computer Science Fundamentals 2 had the highest failure rates, at 19 percent each. Applied Chemistry (3 percent), Introduction to Economics (0 percent) and Cultural Tourism (4 percent) had the lowest failure rates.

Changing modules. At the start of the Access Foundation programme, students completing the questionnaire were asked to indicate the four optional modules they intended studying during the programme. A comparison of students' responses on the questionnaire to the modules they studied during the programme revealed that 35 percent of students changed their mind about the modules they wanted to study and that 71 percent of these students progressed to undergraduate studies. In comparison, 80

percent of students who did not change their mind about module choice progressed to undergraduate studies. Students who did not indicate which modules they intended studying or students who chose one or two modules, rather than four, on the questionnaire had the lowest progression rate, at 55 percent. There were no significant differences in progression based on age (χ^2 = 3.82, df = 1, p = .148), gender (χ^2 = 3.45, df = 1, p = .168) or nationality (χ^2 = 2.71, df = 1, p = .258). These differences in progression rates were significant (χ^2 = 6.54, df = 1, p = .038).

Travel distance to the Access Foundation programme. Most Access Foundation students, 95 percent, lived within 50 km of Mountjoy Square in Dublin, Ireland, where the Access Foundation course is taught. Moreover, 86 percent lived within 20 km of Mountjoy Square. Irish nationals were significantly more likely to live more than 50 kilometres from Mountjoy Square than non-Irish nationals (χ^2 = 2.90, df = 1, p = .089). Progression to undergraduate studies was independent of the distance students lived from the Access Foundation programme in Mountjoy Square (χ^2 = 1.42, df = 1, p = .224).

Environmental Factors

The environmental factors of student goals and attendance were examined.

Student goals. When students were asked to indicate the highest QQI level they hoped to attain to determine their educational goals, 81 percent indicated that they hoped to obtain a higher education qualification at level 8 or above. Moreover, students intending to complete a level 8, 9 or 10 higher education course were significantly more likely to progress to undergraduate studies than those intending to engage in a level 6 or level 7 course (χ^2 = 3.65, df = 1, p = .056).

Attendance. A Pearson correlation coefficient revealed that a student's total score at the end of the Access Foundation programme was strongly correlated with their attendance (r = .78, p < .001). The mean attendance for young adults was significantly lower than that for mature students (t = -2.17, df = 117, p = .032). Findings revealed that students who progressed had a significantly higher mean rank for attendance students than students who failed to progress (U = 990.5, df = 1, p < .001).

Quantitative Model of Access Foundation Student Progression

The quantitative results have revealed a variety of demographic, psychosocial, environmental, institutional and educational factors that affect the progression of Access Foundation students. Logistic regression analysis was conducted to examine whether any of the variables identified in the analysis of quantitative data could be used to develop an equation to predict progression.

A binary logistic regression revealed that three variables can be used to provide a statistically significant prediction of Access Foundation student progression to undergraduate studies – housemates, attendance and working.

Logit (progressing) = - 0.608 + 2.299(housemates) - 0.126(attendance) + 1.626(working)

This equation was statistically significant, $\chi^2(2)$ = 101.70, p < .001. It explained 70 percent (Nagelkerke R^2) of the variance in progression and correctly classified 88.9 percent of cases. The model had a sensitivity of 94.2 percent, a specificity of 75.6 percent, a positive predictive value of 90.65 percent and a negative predictive value of 83.78 percent.

Garson (2016) recommends using odds ratios to make comparisons among predictor variables. In this report the variable 'housemates' had the highest odds ratio at 9.962 and may have had the highest effect on progression. 'Attendance' appeared to be the second highest predictor of Access Foundation student progression, with an odds ratio of 5.085, and 'working' appeared to have the least effect, with an odds ratio of 0.882.

Qualitative Findings

At the end of the Access Foundation programme students were invited to participate in semi-structured interviews. Twenty-four interviews were conducted in total – seven in 2017/18, 11 in 2018/19 and six in 2019/20. Interview participants were evenly split between male and female; 75 percent were mature students and 38 percent were non-Irish nationals.

After the interviews were transcribed, they were uploaded to the data analysis software NVivo. Student interviews were coded with open, axial and selective codes that were identified using the grounded theory approach recommended by Strauss and Corbin (2008). The selective codes suggest that psychosocial, educational, institutional and environmental factors affected progression from the Access Foundation programme to undergraduate studies.

Psychosocial Factors

Three psychosocial factors emerged from the interview data – motivation, confidence, and health and well-being.

Motivation. Analysis of interview data suggested that students were motivated to progress to undergraduate studies for a variety of different reasons. Nineteen students discussed motivation factors that helped or obstructed students in progressing through the Access Foundation programme. Factors that support progression included: wanting a degree, being the first in a neighbourhood to attend higher education, wanting to be a role model for children, and wanting a good job or career. Assignment grades could be motivating or demotivating depending on how well students performed on an assignment.

Confidence. Interviewees also discussed the importance of confidence in helping students to progress. Both having confidence and a lack thereof appeared under the axial code of 'Confidence', in terms of both helping and hindering students to progress. Seventeen students who participated in interviews (71 percent) suggested that confidence affects progression. The codes emerging from interviewees' comments indicated that some students failed to progress because they lacked confidence. In addition, some students gained in confidence during the programme, while some students may have failed to progress because they were overly confident.

Health and well-being. Mental and physical health issues affected progression, according to interviewees. This led to the development of the axial code 'Health and well-being'. Nine interviewees (38 percent) mentioned health and well-being issues that they felt were necessary for successful progression. They also commented on the negative effects of health issues and addiction on student progression.

Environmental Factors

Open codes were grouped to form five axial codes: finance, work, difficulties in finding accommodation, family commitments, and supports. These open codes in turn led to the selective code of 'Environmental factors'.

Finance. Finances were mentioned by nine interview participants (38 percent). When discussing finances, students considered the availability of state financial supports and financial issues related to young adults. Six interviewees (25 percent) contended that lack of finances was an obstacle for students and could prevent them from progressing in the Access Foundation programme. Additionally, interviewees were aware that they could not obtain the SUSI grant but were confused about eligibility for the Back to Education

Allowance (BTEA). Interviewees were divided on the effects of finances on young adults. However, some interviewees noted that young adults were particularly affected by lack of finances.

Work. As evidenced from the quantitative data, 29 percent of Access Foundation students had a paid job over the three years of this study. Thirteen interviewees (54 percent) discussed how working affected Access Foundation students. Students noted that working made it difficult to keep up with college work and left little time for socializing, affected financial supports and could lure students away from higher education.

Residence and housemates. The under-supply of housing that has resulted in increased rents and pushed families into homelessness across Ireland (Department of Housing, Planning and Local Government, 2018) has affected Access Foundation students. Twenty-nine percent of interviewees discussed how a lack of accommodation has threatened the progress of some Access Foundation students in various ways. High rents forced students to leave the programme and although some interviewees felt lucky to be able to live with their families, for others living with family members was difficult.

Family commitments. Half of students noted that relatives affected the amount of time Access Foundation students could spend on their studies. The main problems for Access Foundation students living with family members were related to taking care of children. Participants found it difficult to find time to study while caring for children, Access Foundation students had difficulty finding and paying for childcare, and other family issues sometimes resulted in student departure from the Access Foundation programme. However, families provided emotional and academic support.

Institutional Factors

Interviewees discussed TU Dublin experiences that they felt affected progression. These factors led to the emergence of a selective code called 'Institutional factors'. Categories that emerged in the open codes were linked together to form axial codes related to modules, institutional supports, belonging, socializing, commuting and college breaks.

Modules. Access Foundation students are required to study six core modules and two optional modules each semester. All interviewees discussed the reasons for their optional module choices. However, not all students chose the correct module at the start of the semester and not all students were happy with the core modules they were required to study. Optional module choice was discussed by 17 interviewees (71 percent). Eighteen interviewees (75 percent) mentioned mathematics during interviews, and 14 of these students contended that they found the modules difficult or that other students found them difficult. Additionally, information technology was discussed by ten interviewees. Eight of these students discussed their own struggles or the struggles other Access Foundation students had with information technology. Students indicated that some, particularly older, students found the information technology module difficult.

Institutional supports. During interviews, students offered their opinions on the institutional supports that were available to them, as well as additional supports they felt might be useful to Access Foundation students. The open codes derived from their comments highlighted the importance of lecturer supports, peer supports, English language supports and mathematics supports.

Belonging. A sense of belonging in the Access Foundation programme, the feeling of being an "integral part" of the environment, may affect progression from the Access Foundation programme to undergraduate studies at TU Dublin. Some students found it difficult to fit in when they first started but adjusted to life at TU Dublin. Other students felt that their accents and the clothes they wore could made them feel different and raised concerns that they did not belong in TU Dublin. Meanwhile, some students felt that students did separate into groups or "cliques" on the programme.

Expectations. Six interviewees (25 percent) held that the Access Foundation programme was not as students expected it to be, and this may have prevented them from progressing to undergraduate studies. Some students underestimated the level and volume of work required during the Access Foundation programme. Some contended that the course was more difficult than they expected and involved a more significant time commitment than they had anticipated.

Socializing. The quantitative data did not reveal a relationship between relatedness and progression for Access Foundation students. In interviews, participants discussed their experiences of socializing on the Access Foundation programme, which shed more light on the importance of socialization for Access Foundation students. Eight of these students (33 percent), most of whom were under 30 years old, felt there was not enough socialization in the programme. However, seven interviewees, all mature students, felt that socializing was not a priority outside college hours. Four students felt that the Access Foundation programme's isolation from other TU Dublin campuses negatively impacted the social life of Access Foundation students.

Commuting. Although most students lived within 20 km of the Access Foundation programme, some had to travel long distances to attend classes. Students' comments led to two open codes related to commuting to college. Five students felt that commuting affected their work–life balance. Two students contended that the cost of commuting was problematic.

College breaks. Access Foundation students have several breaks from their studies during the academic year, including a break in October, four weeks at Christmas and two weeks at Easter. Official holidays from college were mentioned by seven interviewees (29 percent). These holidays were considered disruptive and had a negative effect on progression. Interviewees noted that several students left the programme after the Christmas break.

Pandemic. On March 12, 2020, the Irish government closed all schools and higher education institutions in the Irish Republic as the result of an outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Five interviewees discussed how this affected the experiences of Access Foundation students. Although four Access Foundation students were coping well with studying from home, others were struggling because they no longer had the supports they needed, they no longer had the teacher supports they required, or they were struggling to study and cope with the family demands of studying at home. Interviewees contended that Access Foundation students also took unofficial breaks from college that affected their progression.

Educational Factors

Interviewees' comments led to the following conceptual categories, or axial codes, relating to education: students' prior educational experiences, stress, the competitive nature of the programme, end goal, and keeping up.

Prior educational experiences. In interviews, 100 percent of participants discussed their past academic experiences. All interviewees had completed their Leaving Certificate, a level 5 or a level 6 qualification on Ireland's NFQ or at least some higher education modules. Some students had negative past educational experiences, including feeling that they could not relate to their teachers, feeling unsupported or lacking English language skills. However, five interviewees found that their prior educational experiences helped them in the Access Foundation programme.

Stress. Seventeen interviewees (71 percent) contended that Access Foundation students were at times concerned and anxious and felt that this anxiety may have prevented some students from progressing. The workload on the programme, the competitive nature of the Access Foundation programme and classroom communication anxiety may have affected students' progression. Two interviewees felt fear of failure affected progression to undergraduate studies, and one student found waiting on a college offer very stressful.

Groupwork. Some modules require Access Foundation students to engage in group assignments. Students are assigned to groups by their lecturers. Groupwork was mentioned by 13 interviewees (56 percent) and was seen both positively and negatively. Nine students indicated that groupwork was a positive experience that gave them an opportunity to engage with other Access Foundation students and provided practice for their future working lives. However, nine interviewees felt groupwork could be stressful due to communication difficulties or difficulties coordinating meetings with group members. Three interviewees felt that groupwork sometimes led to conflicts.

End goal. Having an end goal meant Access Foundation students knew where they wanted to end up in terms of their education. This could mean knowing what undergraduate course they wanted to study or what subject area they wanted to study. Eleven interviewees asserted that Access Foundation students must want a degree if they are to progress to undergraduate studies. Interviewees felt that some students were persuaded to enter the Access Foundation programme for financial reasons, which may have been demotivating for them and resulted in failure to progress.

Keeping up. Students in the Access Foundation programme must complete continuous assessments in all modules and examinations in some modules each semester. The number of assignments varies depending on the module under study. Eleven interviewees (67 percent) stressed the importance of being organized, managing their time and keeping up with assignments. However, sometimes students allowed their assignments to build up, felt it was impossible to catch up, and left the programme.

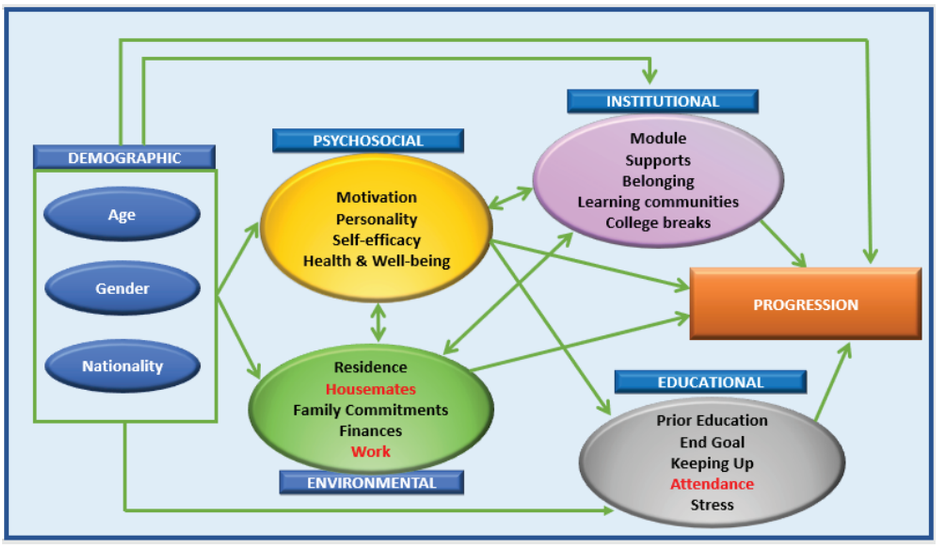
Theoretical Model of Access Foundation Student Progression

The model outlined in this report is based on the assumption that there are five categories of factors that affect Access Foundation student progression – demographic, psychosocial, environmental, institutional and educational. Within these categories, variables that showed either a statistically significant relationship with progression, a statistically significant relationship and a qualitative relationship with progression, or those that showed a strong qualitative relationship were included in the model.

The demographic factors of age, gender and nationality are located to the left of the model (see Figure 1, which is reproduced below). These three factors, when combined with the other four categories of factors,

had statistically significant effects on progression. The psychosocial factors of motivation, personality, self-efficacy and health and well-being and the environmental factors of residence, housemates, finances, family commitments and working are included to the right of demographic factors in the model. These factors are related to Access Foundation students' individual traits and the environments in which they live.

The final two categories, institutional and educational factors are included to the right of the model. Demographic, psychosocial and environmental factor have been shown to interact with these two factors, and they interact with each other to affect progression.



Discussion

The findings revealed that aspects of demographic, psychosocial, environmental, institutional and educational factors affect the progression of Access Foundation students to undergraduate studies. The meaning and implications of these findings for Access Foundation students, institutional leaders and policymakers will be discussed with reference to the findings of empirical research on higher education students.

What effect, if any, do demographic factors have on the progression of Access Foundation students to undergraduate studies?

The findings indicated slight differences in Access Foundation student progression based on age, nationality and socio-economic status. Sixty-seven percent of female Access Foundation students progressed to undergraduate studies, compared with 62 percent of males, but this difference was not statistically significant (χ^2 = .424, df = 1, p = .515). Findings in the empirical literature reveal that females are more likely to progress than males in higher education (Almås et al., 2016; Bean & Metzner, 1985; Jensen, 2010). Females may be more suited to higher education because they tend to be more agreeable, conscientious, extraverted and open than their male counterparts (Almås et al., 2016).

Over the three years of the study, 68 percent of mature Access Foundation students progressed to undergraduate studies, compared with 60 percent of young adults. However, this difference was not statistically significant (χ^2 = 1.19, p = .276). HEA (2018b) data determined that at level 6 in higher education, the progression rate for mature students (77 percent) was higher than that of young adults (72 percent). When the HEA (2018b) data is compared with the data for Year 1 and Year 2 of the current study, the findings are very similar. However, in Year 3 of the study the progression rates for mature students and young adults were lower, at 42 percent and 44 percent, respectively. It is noteworthy that, as the percentage of young adults in the programme increased over the course of the three years of this study, the rate of progression decreased each year. In interviews, participants contended that mature students were more focused on their studies than young adults and that having a mix of mature students and young adults in the classroom was beneficial. Therefore, the ratio of mature students to young adults may affect progression rates. This warrants further investigation.

Non-Irish nationals in the Access Foundation programme had a higher progression rate (69 percent) than their Irish peers (61 percent). However, this difference was not statistically significant (χ^2 = 1.11, df= 1, p = .293). This finding is consistent with level 6 undergraduate data from the HEA (2018b), which indicates that non-Irish nationals are more likely to progress in undergraduate studies than their Irish counterparts. The HEA acknowledged that its data may be misleading because the number of non-Irish nationals at level 6 in higher education in Ireland is low. In the Access Foundation programme, there was a relatively high percentage of non-Irish nationals (37 percent), which may provide a more accurate picture of progression rates for this cohort.

The progression rates of Access Foundation students varied slightly depending on socio-economic group. Students in the 'mainly affluent' socio-economic group were more likely to progress (82 percent) than their peers, with progression rates ranging from 68 percent for students in the 'marginally above average' group, to 64 percent in the mixed group and 60 percent in the 'mainly disadvantaged' group. HEA (2018b) data also revealed a trend of higher progression rates in higher education for those in higher socio-economic groups, where students had progression rates of up to 91 percent, compared with 84 percent for those in lower socio-economic groups. However, financial issues may be especially important for Access Foundation students. Three interviewees contended that financial hardship was a factor in students' decisions to leave the Access Foundation programme. Young adults were less likely to qualify for any social welfare or the BTEA, so they may have been under more financial pressure than mature students who received these

supports. This may help in explaining the lower progression rates for Access Foundation students compared with students in higher education.

Psychosocial Factors

What effect, if any, do psychosocial factors have on the progression of Access Foundation students to undergraduate studies?

Psychosocial factors related to motivation, personality traits, health and well-being, and self-efficacy were examined in the current study.

Motivation. Quantitative findings revealed that motivation did not have a statistically significant effect on progression when all Access Foundation students were considered. This finding contrasts with other findings in the empirical literature relating to motivation in higher education students. Previously, researchers found that students who progress in higher education are more intrinsically motivated than students who fail to progress (Augustyniak et al., 2016; D'Lima et al., 2014; Shillingford & Carlin, 2013). The findings from the current study indicated that this was true for young adults in the Access Foundation programme, but not for mature students. Interview data further supports the relationship found between intrinsic and extrinsic motivation and progression detailed in the quantitative data. Motivation was mentioned by more interviewees than any other factor.

According to cognitive evaluation theory (CET), social and environmental factors can facilitate or undermine intrinsic motivation (Ryan & Deci, 2000). Access Foundation students completed the AMS at the start of the programme. Students who had low intrinsic motivation at that time may have increased their intrinsic motivation during the programme when they experienced the external factors that supported their autonomy and relatedness, as mentioned by interviewees.

Personality. Overall, progression was independent of the five personality traits of conscientiousness, extraversion, openness, agreeableness and neuroticism. However, there were significantly different mean ranks for some personality traits by age, gender and nationality.

- *Conscientiousness.* Initial analysis revealed that conscientiousness did not have a statistically significant effect on progression overall (U = 2042.5, p = .165). This contrasts with a large body of existing empirical research demonstrating a consistent, positive association between conscientiousness and succeeding academically (Busato et al., 2000; Ryberg et al., 2017; van Eijck & de Graaf, 2004) and has been linked to progression in higher education (Alarcon & Edwards, 2013; Lenton, 2014; Okun & Finch, 1998). Looking at Access Foundation students' data more closely revealed that conscientiousness did have a positive effect on the progression of some students in the Access Foundation programme. Mature students (U = 481.5, p = .023), non-Irish nationals (U = 1488.5, p < .001), and young adult females (U = 393.5, p = .026) had significantly higher conscientiousness scores, and higher progression rates, than their peers. Interviewees also stressed the significance of conscientiousness in the Access Foundation programme, noting the importance of keeping up with assignments and meeting deadlines in progressing to undergraduate studies.
- *Neuroticism.* The personality trait of neuroticism did not affect the progression of Access Foundation students overall (U = 1111.5, p = .731). This finding contrasted with research indicating that neuroticism had a negative effect on progression (Hansson et al., 2018). Researchers contend that neuroticism creates negative emotions, results in failure to progress and results in a negative reaction to the fear of failure (Barthelemy & Lounsbury, 2009; Sahinidis et al., 2013). Further analysis revealed that mature non-Irish nationals had a significantly lower mean rank for neuroticism (U = 656, p = .051),

and significantly higher progression rates (χ^2 = 2.96, df = 1, p = .086), than mature Irish nationals. However, young adults who progressed had a significantly higher mean rank for neuroticism than young adults who did not progress (U = 420.5, p = .053). Laskey & Hetzel (2011) also found that neuroticism could have a positive relationship with college performance and concluded that students with higher neuroticism scores do better because they worry more.

There was a significant negative correlation between Access Foundation students' neuroticism and conscientiousness scores (r = -.418, p < .001). Ross et al. (2002) found that a negative relationship between these two traits was mediated by the phenomenon of self-handicapping. Self-handicapping is the process of "hindering success by self-imposed obstacles in important performance situations" (Török & Szabó, 2018, p. 173). Almost half of the interviewees in the current study (46 percent) recalled that some Access Foundation students did not keep up with their assignments, which meant that they fell behind and ultimately failed to progress. Although other factors may have prevented students from keeping up with their work, some students may have been "self-handicapping" to avoid internal attributions for failure. Fear of failure was also mentioned by Oscar, an Access Foundation interviewee who failed to progress.

- *Extraversion*. As previously mentioned, the personality trait of extraversion did not have a significant effect on the progression of Access Foundation students overall (U = 2592.0, p = .972). In previous studies with higher education students, Lievens and Ones (2009) contended that students with higher extraversion could do better in some classes. However, van Eijck and de Graaf (2004) and Furnham et al. (2003) found that extraversion is negatively related with educational attainment in higher education, and Laskey and Hetzel (2011) found that extraversion is inversely related to both progression and college GPA. Chamorro-Premuzic and Furnham (2003) and Laskey and Hetzel (2011) suggested that students who obtain a high score in extraversion tend to be very social and may be more interested in socializing than engaging in their studies, which can negatively affect their educational performance. Quantitative data revealed that young adults had a significantly higher mean rank for extraversion than mature students (U = 1966, p < .001) and they had a lower progression rate – 60 percent for young adults compared with 68 percent for mature students (although this difference was not significant – χ^2 = 1.19, df = 1, p = .276). Therefore, extraversion may have negatively affected the progression of some young adults in the Access Foundation programme, which is in line with most previously mentioned research studies.

  Interviewees in the Access Foundation programme indicated that there was little socialization outside classes. Therefore, Access Foundation students with higher extraversion scores may not have had an opportunity to socialize as much as they might have wanted. This could explain why higher extraversion scores did not have a statistically significant effect on progression in the current study, which it did in previous studies.

  Additionally, Access Foundation students with lower extraversion scores may have encountered difficulties in some subjects. Interviewees contended that at least two students failed to progress in the Access Foundation programme because of difficulties in groupwork and making presentations. Students who obtained lower extraversion scores can find some modules difficult, particularly modules that require interpersonal interactions.

- *Openness*. Quantitative data revealed that students with a higher mean rank for openness were significantly more likely to progress to undergraduate studies than their peers (U = 2160.5, p = .087). Moreover, non-Irish nationals had a significantly higher mean rank for openness than Irish nationals (U = 1966, p = .011). This finding is noteworthy because non-Irish nationals also have a slightly higher progression rate to undergraduate studies (69 percent) than their Irish peers (61 percent). Therefore, it appears that openness could positively affect Access Foundation student progression,

particularly the progression of non-Irish nationals. The personality trait of openness has been shown to be positively related with educational attainment (Farsides & Woodfield, 2003; Lenton, 2014; Ryberg et al., 2017; van Eijck & de Graaf, 2004). Bauer and Liang (2003) found that students with higher scores for openness are more likely to look for new academic and social experiences that will help them in their studies, allowing them to analyse different ideas and become better critical thinkers. This may also explain the positive relationship between openness and progression in the current study.

- *Agreeableness*. As previously noted, agreeableness did not affect the progression of Access Foundation students to undergraduate studies (U = 2209.5, p = .841). Although there have been mixed findings on the effects of agreeableness on academic achievement and progression, several studies have shown no relationship between agreeableness and academic success in higher education (Burton & Nelson, 2006; Duff et al., 2004). It is worth noting that female Access Foundation students had a significantly higher mean rank for agreeableness than males overall (U = 2072.0, p = .008). This replicates the findings of other studies showing that females score higher than males on this trait (Weisberg et al., 2011; Costa et al., 2001). Agreeableness may have a positive effect on female progression as a slightly higher percentage of females (67 percent) in the Access Foundation programme progressed to undergraduate studies than males (62 percent).

Self-efficacy. The general self-efficacy scale (Schwarzer & Jerusalem, 1995) was employed in the quantitative phase of the current study to examine Access Foundation students' self-efficacy at the start of the programme. Data revealed that non-Irish nationals had significantly higher median scores for GSE (U = 4034, p = .007) than Irish nationals, and they also had a slightly higher progression rate (69 percent compared with 61 percent). These findings concur with research in the empirical literature, which reveals that students who fail to progress generally have lower self-efficacy scores than their classmates who progress (Devonport & Lane, 2006; Holder, 2007). However, GSE scores did not appear to affect Access Foundation students' progression to undergraduate studies overall (U = 2815.5, p = .425). According to Devonport and Lane (2006, p. 128), self-efficacy is malleable. It is affected by "performance accomplishments, vicarious experiences, verbal persuasion, and the control of negative emotions" (Bandura, 1977, p. 191). Access Foundation students' GSE was measured at the start of the programme so it is possible that through their experiences during the Access Foundation programme some students' academic accomplishments may have resulted in gains in GSE, which are not reflected in the quantitative findings here. Interviewees did not discuss self-efficacy but did consider how "self-confidence" affected overall progression in the Access Foundation programme. Some interviewees (38 percent) noted that students who gained in self-confidence during the Access Foundation programme progressed, but more interviewees (46 percent) noted that Access Foundation students who lacked confidence in their ability to succeed in the programme and those who were overly confident were considered less likely to progress.

Health and well-being. Issues related to health and well-being were addressed during interviews, although these were less likely to be mentioned than other psychosocial factors. Interviewees contended that Access Foundation students' mental and physical health and problems with addiction affected progression in the Access Foundation programme. A National Student Mental Health Survey conducted by the Union of Students in Ireland revealed that 38.4 percent of Irish higher and further education students were extremely and severely anxious; 29.9 percent were extremely and severely depressed; and 17.2 percent were extremely and severely stressed (Price & Smith, 2019). These percentages indicate that mental health issues are prevalent among college students, particularly depression, which is concerning given that students with anxiety and depression are significantly more likely than their peers to experience negative physical and psychosocial outcomes (Wu et al., 2016). The mental health issues that affect progression in higher education (O'Keefe, 2013) also affect some Access Foundation students.

Addiction was a problem for some Access Foundation students, in particular alcohol addiction, and this may have affected their progression. The empirical research concurs, indicating that heavy drinking and illegal substance abuse have a negative effect on progression in higher education (Martinez et al., 2008; Arria et al., 2013; Department of Education and Skills, 2019). These factors are also affected by environmental factors, which are discussed next.

Environmental Factors

What effect, if any, do environmental factors have on the progression of Access Foundation students to undergraduate studies?

Environmental factors related to finances, working, and family commitments were examined in the current study. Quantitative data revealed that a subset of these factors had a statistically significant effect on Access Foundation students' progression while others did not. When, however, the qualitative data is considered, all environmental factors were found to affect the progression of Access Foundation students.

Residence and housemates. Quantitative data showed that Access Foundation students' residence and housemates affected their progression to undergraduate studies. Findings showed that students who lived in rented accommodation were more likely to progress to undergraduate studies than those who lived in their parents' home, in their own home or in emergency accommodation. Moreover, Access Foundation students living with a spouse or partner, living with a child, or living with other students were more likely to progress to undergraduate studies than those who lived with parents or another relative. The empirical literature on the living arrangements of higher education students has focused mainly on comparing the progression rates of students who live in residence halls on campus and students who live off campus – "commuting" students (Bean & Metzner, 1985; Chickering, 1974; Tinto, 1993). No Access Foundation students live in college residences, so all Access Foundation students can be considered "commuting" students. However, Chickering (1974) found that students who lived in rented accommodation were more engaged in the academic life of the university than students who lived with parents. International research suggests that commuter students are less likely to progress in higher education than those who live in residence halls (Gormley, 2016). Gormley (2016) found that Irish higher education students living in their own home and in rented accommodation spent more time on "educationally purposeful activities" than those who lived with their parents. Neves and Hillman (2017) contended that higher education students who live in the family home may feel isolated, which affects their learning outcomes. Access Foundation students living with their parents or those living on their own may feel isolated also, which may explain the lower progression rates for these students.

The logistic regression equation developed from the quantitative data revealed that 'housemates' was a statistically significant variable in predicting Access Foundation student progression to undergraduate studies.

Additionally, one Access Foundation student described the challenges of living in emergency accommodation, which made it difficult to complete assignments and threatened homeless Access Foundation students' ability to progress to undergraduate studies. Housing difficulties have been found to affect the progression of higher education students (Sinatra & Lanctot, 2016). According to McGah & Saavedra (2015), being homeless affects a student's well-being physically, mentally, financially and academically. Additionally, it affects a student's basic needs including their food security, which can affect their cognitive functioning (Hallett & Crutchfield, 2017).

Family commitments. Quantitative data revealed that 22 percent of Access Foundation students were caregivers. Caregiver Access Foundation students had a progression rate of 70 percent, whereas non-

caregivers had a slightly lower progression rate of 61 percent. The empirical research suggests that family commitments can negatively affect students' progression in higher education (Moore-Cherry et al., 2015; Cruse et al., 2018). Although quantitative data indicated that this was not true for Access Foundation students, interviewees indicated that family responsibilities could be a hindrance to Access Foundation student progression. However, some students organized their studies so that they could take care of children or other family members. Additionally, acting as a role model for their children was a strong motivator for parents that encouraged them to continue in the programme when they wanted to leave.

Finance. The quantitative data revealed no significant difference in progression based on financial support overall. This finding is unexpected given that the empirical literature indicates that funding plays a positive role in student progression in higher education (Bennett, 2003; Graham, 2015; Lauder & Cuthbertson, 1998; McGivney, 2004). However, in line with the research in the empirical literature, interviewees indicated that lack of finance may indeed have forced some students from the Access Foundation programme due to the costs of accommodation, transport and college lunches. This concurs with the findings of Moore-Cherry et al. (2015), which revealed that many higher education students experienced financial concerns related to accommodation, travel costs and living expenses.

The lower levels of financial support for females in the Access Foundation programme was unanticipated and may have affected the participation of females in the programme. Female Access Foundation students aged 28–38 were half as likely to obtain financial supports as their male counterparts. According to the Central Statistics Office, the average age of mothers at maternity in Ireland in 2017 was 32.8 years.[1] Therefore, females in the 28–38 age group may not have been able to enter the Access Foundation programme because of the cost of childcare and the lack of financial supports available to them.

Work. There was no significant difference in progression between students who worked and those who did not. The empirical research on the impact of working on higher education students' academic performance is inconclusive (Tessema et al., 2014). Some researchers contend that the number of hours students work per week determines whether work will affect their progression (Hovdhaugen, 2015; Tessema et al., 2014). In the Access Foundation programme, students who worked 30–40 hours per week had the highest progression rate (100 percent) and students who worked 21–30 hours per week had a progression rate of 73 percent. However, Access Foundation students may not have worked these hours for the entire semester and may have reduced their working hours if they found it difficult to keep up with their studies. A logistic regression analysis revealed that working was a statistically significant predictor of progression to undergraduate studies for Access Foundation students and it is a variable in the binary regression equation of progression.

Interviewees discussed work more than any other environmental factor. They contended that it would be difficult to keep up with their studies if they were working full-time but that part-time work was manageable. However, even part-time and flexible jobs were stressful for Access Foundation students. This concurs with McGregor's (2015) finding that two-thirds of working higher education students felt that work was negatively affecting their health, particularly their mental health. Moreover, interviewees contended that some students took full-time positions during the Access Foundation programme and left their studies as a result.

Institutional Factors

What effect, if any, do institutional factors have on the progression of Access Foundation students to undergraduate studies?

A variety of institutional factors that affect the progression of higher education students have been

1 Available at: https://www.cso.ie/en/releasesandpublications/ep/p-vsar/vitalstatisticsannualreport2017/

identified in the empirical literature, including the modules students choose, the supports they receive, and the travel distance to the higher education institution.

Optional modules. Quantitative data showed that the lowest progression rates for young adults in the Access Foundation programme were in Computer Science Fundamentals and Engineering. This concurs with HEA data (2020b), which revealed that the lowest progression rates were in Engineering (80 percent) and Computer Science (80 percent). However, mature students had some of their highest progression rates in these modules.

Additionally, females in the Access Foundation programme comprised a very small percentage of students in the Computer Science Fundamentals module in the Access Foundation programme (17 percent). The small number of female students in the module may have affected their progression, as McGrath Cohoon (2001) found that computer science departments with higher proportions of females are more likely to retain comparable numbers of females and males. Additionally, Miliszewska et al. (2006) found that female computer science students in higher education view female peers as a vital source of academic and personal help.

Core modules. Although mathematics modules had the lowest mean scores in Semester 1 and Semester 2 and mature learners are more likely to report higher levels of mathematics anxiety and lower levels of mathematics self-efficacy than young adults (Jameson & Fusco, 2014), mature students had higher mean ranks for all mathematics modules in the Access Foundation programme. Faulkner et al. (2016) compared the mathematical performance of 'non-standard' students (students who entered higher education through a non-traditional route) and 'standard' students over a ten-year period at a higher education institution in Ireland. They found that, although 'non-standard' students obtained a lower score on a diagnostic test at the start of their higher education course, their mean performance in their mathematics module was higher than that of 'standard' students. Faulkner et al. (2016) concluded that the 'non-standard' students had improved their mathematics performance over the course of the semester. Similarly, mature Access Foundation students may have improved their mathematics performance over the course of the Access Foundation programme. More mature students indicated that they had accessed the mathematics support services available to Access Foundation students, or had wanted to access these services, than young adults, which concurs with the findings from Fitzmaurice et al. (2015).

Changing modules. Thirty-five percent of Access Foundation students changed their module choice during the Access Foundation programme and 75 percent of these students progressed to undergraduate studies; this is slightly lower than the progression rate of Access Foundation students overall (80 percent). Tinto (2012) contended that 33–50 percent of students enrolled in degree courses change subject choice at least once and that up to 50 percent are undecided about their educational future. This concurs with the findings in relation to Access Foundation students in this study. Interviewees indicated that the ability to change modules was important in ensuring students' progress in the Access Foundation programme. Making the wrong course choice is one of the main reasons why students fail to progress in higher education (Andrew et al., 2008; Redmond et al., 2011).

Travel distance to the Access Foundation programme. Access Foundation students' travel distance to the programme did not appear to affect progression to undergraduate studies. This contrasts with findings in the empirical literature, which reveal that travel distance negatively affects participation in higher education by individuals of low socio-economic status (Cullinan et al., 2013).

Although travel distance did not affect progression in the Access Foundation programme, interviewees indicated that it may affect students' choice of higher education institution and their progression in higher education.

Supports. A variety of supports were important for Access Foundation students, including support from

family and friends, peer supports, lecturer supports, English language supports, and mathematics supports. Although there was no statistically significant difference in progression for students who received support from their family and friends and those who did not (p = .773), interviewees felt that the support they received from their family, their peers and their lecturers was important in helping them to progress. According to Tinto (2012), students who are academically and socially more engaged with peers, family and higher education staff are more likely to succeed academically. In the empirical research, parents have been found to help third-level students in terms of mental health, progression, graduation and financial management (Wartman & Savage, 2008). This in contrast to the finding in the current study that Access Foundation students who live with parents are less likely to progress that those who live with a partner, children or friends. Further research is necessary for an in-depth examination of this finding.

Lecturer supports. Lecturer supports were mentioned by more Access Foundation students than any other institutional factor. Interviewees noted that lecturers supported Access Foundation students by being approachable, engaging and encouraging, building students' confidence and providing good feedback. Empirical research on higher education students reveals that teacher–student relationships affect students' successful progression in higher education (Hagenauer & Volet, 2014; Wilcox et al., 2005). Additionally, Tinto (2012) noted that providing frequent feedback, having high expectations and constantly reinforcing those expectations promotes student success.

Peer supports. Peers supported Access Foundation students academically through informal peer-assisted learning groups, offered emotional support, provided childcare and offered financial advice. The supports peers provide have been acknowledged in the literature. Peers provide students with emotional and cognitive support during the first year of higher education (McSweeney, 2014), while compatible friends provide emotional support and support students in stressful situations throughout their higher education experience (Wilcox et al., 2005).

English language supports. Quantitative data revealed that 37 percent of Access Foundation students spoke English as their second language. Some non-native speakers of English in the Access Foundation programme raised concerns about their academic English skills. English competency can affect higher education students' academic achievement (Harris & Ní Chonaill, 2016; Paton, 2007). One study in the empirical literature found that academic writing was a particular area of concern for non-native speakers of English at an Irish institute of technology (Paton, 2007). Paton found that four of the eight participating students did not progress past first year at this institution. However, this was not the case for Access Foundation students who were non-native English speakers. Despite concerns about their English language skills, as previously noted, non-Irish nationals in the Access Foundation programme outperformed their Irish counterparts in Humanities and Social Science modules, modules that require strong English reading and writing skills. A study of international students in Australia may offer an explanation why. The study found that, although language was important for international students in an Australian foundation programme, their academic success was also dependent on their motivation, self-efficacy and self-regulation (Phakiti et al., 2013). However, this warrants further research.

Mathematical supports. As mentioned previously, quantitative data revealed that mathematics modules had the lowest mean scores in Semester 1 and Semester 2 when compared to all other modules. The empirical research indicates that higher education institutions are increasingly viewing mathematical supports as a vital way to help students enhance their mathematical and statistical skills (Grove et al., 2019). However, although some mature students had accessed the mathematical support services offered by TU Dublin, some students had difficulty in attending due to the time or location of the support services. Additionally, young adults did not mention that they had attempted to access mathematical support services. Breen et al. (2014) noted a similar finding. In their study of attendees at the Maths Learning Support Centre at Dublin Institute of Technology (now part of TU Dublin), Breen et al. (2014) found that younger students

were reluctant to search for extra support and were more likely to ask their peers for help than to attend mathematics supports. This also may have been true for young adult Access Foundation students in this study.

Belonging. When quantitative data was collected at the start of the Access Foundation programme, students had not engaged enough with the programme or with their classmates to determine whether they "belonged". However, in interviews students talked about not fitting in during the programme. Some students struggled to belong throughout the programme and may have failed to progress as a result. A sense of belonging, the feeling of being an "integral part" of an environment (Baumeister & Leary, 1995), is one of the strongest motivations to continue with an activity (Hagerty et al., 1992).

Additionally, Access Foundation students talked about forming groups, informal learning communities, both in-person and through social media, in the Access Foundation programme that supported them and helped them to progress. Some students may not have felt that they were part of these groups, which may have affected their sense of belonging in the programme and their progression.

Socializing. Quantitative findings revealed that young adult students had significantly higher scores on 'need for relatedness with peers' and 'need for relatedness with faculty' (U = 2862.5, p = .018) than mature students. Interviews confirmed this finding. Young adults indicated that they would have welcomed more opportunities to socialize during the Access Foundation programme, while mature students asserted that they were less interested in socializing and more focused on their studies. For Tinto (1993), social integration into college life affects progression as much as academic integration. However, Bean and Metzner (1985) see social integration into higher education as less important for mature students than for young adults. Access Foundation students formed informal learning communities, consisting of both mature and young adult students, that provided academic and social support. Tinto (2012) contends that such learning communities increase academic and social interactions and therefore progression, which appears to have been the case for Access Foundation students also.

College breaks. Quantitative data revealed that after the Christmas break the number of students engaged in the Access Foundation programme decreased by 13 percent. The Christmas break was long and followed by end-of-semester examinations, which meant that students were out of the classroom for approximately six weeks. Interviewees contended that breaks from college, both official and unofficial, had a negative effect on Access Foundation student progression. Redmond et al. (2011) found that higher education students withdraw from their courses at specific time periods during the academic year, such as end-of-semester examinations. They found that a significant percentage of participants in their study withdrew around the Christmas examination period, which is also what happened in the Access Foundation programme. Additionally, the pandemic which occurred in Year 3 of the current study forced Access Foundation students to study from home and made it difficult for some students to continue with their studies.

Educational Factors

What effect, if any, do educational factors have on the progression of Access Foundation students to undergraduate studies?

Educational factors that affected progression in the Access Foundation programme included prior educational experiences, stress, groupwork, having an end goal and keeping up with college.

Prior education. Quantitative data on prior education was not available for the current study. However, qualitative data revealed that all interviewees had been educated to at least level 4 on the National Framework of Qualifications, and some students had engaged in higher education in the past. Interviewees noted that prior education helped students to progress to undergraduate studies by providing them with a host of transferable skills, such as time management skills, academic writing skills and English language skills. The empirical research corroborates these findings, indicating that past academic performance is a predictor of success in college (Harackiewicz et al., 2002; Richardson et al., 2012). HEA (2018a) data also revealed that students who obtained higher points in the Leaving Certificate were more likely to progress to higher education.

Stress. Qualitative data revealed that Access Foundation students experienced a variety of stressors during the programme and that this was one of the educational factors mentioned most often by interviewees. Some students commented on the workload, some suffered from classroom communication anxiety, and some were stressed by competition for higher education places. The empirical literature also reveals that a variety of stressors affect students (Pitt et al., 2017) and that students who are better able to manage these stressors are more likely to progress in higher education (Parker et al., 2006).

Qualitative data revealed that Access Foundation students were divided on the benefits of groupwork. Some interviewees enjoyed the opportunity to engage with other students and found groupwork motivating but others found it stressful, noting that it was difficult to coordinate meetings of group members and hard to motivate some students to participate. Empirical research has highlighted the benefits of groupwork in education (Cooley et al., 2015; Robinson & Schaible, 1995). Students who work in cooperative groups learn more, have a better understanding of what they are learning, find it easier to remember what they learn, and feel better about themselves, their peers and their classroom (Smith, 1976). However, group dynamics vary, from groups with equitable collaboration to dysfunctional groups where one individual dominates (Theobald et al., 2017). At least one Access Foundation student failed to progress due to problems with groupwork.

End goal. At the start of the year, Access Foundation students were asked to indicate the highest NFQ level they hoped to achieve. Access Foundation students intending to complete a level 8, 9 or 10 undergraduate course were significantly more likely to progress to undergraduate studies than those intending to engage in a level 6 or level 7 course ($\chi^2 = 3.65$, df = 1, $p = .056$). Qualitative data concurred with the quantitative data. Interviewees indicated that having an end goal was important and helped them to remain in the programme when they were struggling. The empirical research reveals that clear learning goals make adult students much more likely to progress in their studies when compared with students who have no learning goals (Comings et al., 1999). Tinto (2017) contends that an end goal is a necessary, albeit insufficient, condition for progression to degree level. End goals such as wanting to be the first in their area to attend higher education, being determined to earn a degree and working for long-term gain positively affected students' progression in the Access Foundation programme. However, students who lacked direction and remained in the programme to continue their financial benefits or "fill in time" were less likely to progress.

Keeping up. Quantitative data revealed that some Access Foundation students failed to complete assignments. Such students also failed to progress. Access Foundation students who failed to keep up

with their assignments may have lacked the cognitive, behavioural and affective tools and abilities that are required to enable them to complete tasks, achieve their goals and manage the academic demands of their course (Burrus et al., 2013). According to Graham (2015), mature students find higher education difficult in part because of a lack of time management skills. Burrus et al. (2013, p. 25) contend that "time management, study skills and habits, leadership, problem solving, coping, and communication" are strongly related to progression in higher education. Qualitative data concurred with these findings, with interviewees stressing the importance of keeping up with assignments.

Attendance. There was a statistically significant relationship between attendance and progression in the Access Foundation programme. The mean attendance of Access Foundation students who progressed to undergraduate studies was higher than the mean attendance of those who did not. There was also a strong positive correlation between a student's total score at the end of the Access Foundation programme and attendance. This is in line with empirical research revealing a positive correlation between attendance and academic achievement in higher education (Davis, 2011; Halpern, 2007; Paisey & Paisey, 2004). However, there are mixed results in the empirical literature on the relationship between attendance and students' academic performance (Cleary-Holdforth, 2007). Some researchers have found no correlation between the two (Rodgers, 2002). Other researchers have found a negative correlation between attendance and progression (Kelly, 2012; Cred et al., 2010).

Recommendations for Policy and Practice

Following an analysis of the quantitative and qualitative results, the following recommendations are made in the hope that they will inform policymakers and practitioners working in Access Foundation education and in higher education generally.

- A binary logistic regression revealed that the variable 'housemates' was a predictor of Access student progression. Students who lived with their parents or alone or those who were homeless were less likely to progress than students who lived with a partner, a child or a friend. Interviewees noted that high rents forced students to live with family members and this sometimes made progression difficult. Offering affordable housing or affordable student accommodation for Access Foundation students could alleviate some of the difficulties experienced by homeless Access Foundation students or those living in stressful family situations. Under the Planning and Development Act of 2000 a proportion of new housing developments must be reserved for social housing (Irish Statute Book, 2000). By implementing a similar policy for student accommodation, policymakers could make such accommodation more accessible to disadvantaged students in the Access Foundation programme and helpful other disadvantaged students in higher education nationally.
- A binary regression highlighted 'working' as a statistically significant predictor of progression to undergraduate studies for Access Foundation students. Students who worked were less likely to progress than students who did not work. Moreover, Access Foundation students were more likely to work if they did not have financial support. Making the SUSI grant available to Access Foundation students could help alleviate some of the financial difficulties some students experience, reduce the likelihood that they would be forced to work during the programme, and positively affect progression.
- Attendance was also identified as a predictor of Access Foundation student progression. Students who had higher rates of attendance were more likely to progress to higher education. Policymakers should consider supports that could make it easier for Access Foundation students to attend classes and thereby increase progression. Although the empirical research on how attendance effects progression is mixed, supports for Access Foundation students may also improve the attendance and progression of students in higher education.
- The results of this study indicated that, as the proportion of young adults increased in the Access programme, the rate of progression of all students decreased. Further research is needed on how the proportion of mature students affects the progression of in the Access Foundation programme. If higher proportions of mature students are confirmed to have a positive effect on the progression of all students, this could have implications for higher education policymakers in Ireland and beyond.
- The current study indicated that students from disadvantaged backgrounds were less likely to progress to higher education than their peers. Interviewees suggested that some disadvantaged students felt that they did not "belong" in the Access Foundation programme and that this affected their progression. This finding may also be relevant to higher education students, as the empirical research shows that students from lower socio-economic backgrounds find it more difficult to experience a sense of belonging in higher education (Soria and Bultmann, 2014). Those engaged in Access policy and practice should consider the supports necessary to ensure that all students feel that they belong in Access programmes and higher education. Moreover, further research is required to determine how and why the socio-economic status affected progression in the Access Foundation programme.
- Family commitments forced some Access Foundation students to leave the programme. Students could not attend classes when their children were sick or on holiday from school. Given the

importance of attendance as a predictor of progression in a binary logistic regression, it is important that family commitments do not prevent students from attending classes. Providing childcare options for Access Foundation students could alleviate the struggles they experience in trying to manage their studies while minding their children. Family commitments have also been found to affect the progression of students in higher education (Cruse et al., 2018). Disadvantaged parents should be made aware of the Afterschool Childcare Scheme, which is available to parents receiving the One-Parent Family Allowance (Department of Social Protection, 2019). Additionally, providing childcare options outside normal working hours would help parents in the Access Foundation programme and higher education to increase their likelihood of progression.

- Mental health issues and addiction affected the progression of some Access Foundation students. Access Foundation students, particularly students suffering with mental health issues, should be reminded that their higher education institution offers a counselling service where students can discuss personal problems they are experiencing or academic difficulties. Additionally, given that mental health disorders are prevalent among college students in Ireland as elsewhere (Hunt & Eisenberg, 2009; Moore-Cherry et al., 2015; Price & Smith, 2019), these services should be well advertised throughout higher education institutions in Ireland and abroad.
- At the national level, consideration should be given to providing a programme similar to the Access Foundation programme to all students during their first year in higher education. Alternatively, a similar programme could be offered during Transition Year, the one-year programme undertaken by most Irish secondary school students before beginning their Leaving Certificate studies. This would give students an opportunity to try different module options and experience college life before they commit to a higher education course and could reduce the non-progression rates in first-year higher education courses nationally.

Conclusion

This report set out to address the question:

What are the factors affecting the progression of Access Foundation students to undergraduate studies?

The findings provide important insights into the demographic, psychosocial, environmental, institutional and educational factors affecting the progression of Access Foundation students to undergraduate studies that are distinctly absent from existing research. These findings resulted in the development of a quantitative model and a theoretical model of Access Foundation student progression that are based directly on the experiences of Access Foundation students. These models will offer an invaluable tool for those working in Access Foundation education and provide researchers in the field of Access Foundation education with a tool for further research on the progression of Access Foundation students internationally.

The findings from the current study may be useful for stakeholders in Ireland and internationally who are concerned with the progression of mature students, non-Irish nationals and socio-economically disadvantaged students in other higher education cohorts, including undergraduate students. The finding that higher proportions of mature students in the Access Foundation programme were associated with higher progression rates for all students could be significant in other educational settings with mature students, both nationally and internationally. Additionally, the effect of place of residence and housemates on Access Foundation student progression could also be applicable to other higher education students. The report also sheds light on the effects of social integration on the progression of Access Foundation students to undergraduate studies and on the importance of students' ability to change module on their progression to undergraduate studies.

Students enter the Access Foundation programme with different demographics, different psychosocial characteristics and different environmental circumstances. However, most enter the programme because they "want to change their life and get an education" (Joseph – Access Foundation Student, 2019). The findings in the current study provide a better understanding of the difficulties Access Foundation students encounter so that educators, administrators and policymakers are aware of the supports Access Foundation students need to progress to undergraduate studies and beyond.

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