

Review of Maynooth University's Foundation Certificates Programme (2002-2014)

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Executive Summary

This report is the product of research commissioned by the Access Office at Maynooth University. It reviews the **three Foundation Certificates (FCs)** - in **Science**, in **Engineering**, and in **Finance, Economics and Venture Management**. The Maynooth University FCs are tailor-made certificates that offer mature students a formal pathway to science-based Higher Education (HE) undergraduate studies. They do this by introducing participants to key subjects, with particular emphasis on mathematics. They also acclimatise students to university campus life and support the development of core study skills. Although there is diversity in undergraduate progression across the three certificates, the delivery model is based on shared curricular contents that encompass a range of maths, science and study skills modules. The FCs are specifically targeted at adults seeking entry to undergraduate studies within the Faculty of Science and Engineering and offer an alternative pathway to traditional admission. Foundation Certificates guarantee successful participants a space on designated undergraduate programmes once a certain grade is reached.

This research, based partly on student and staff experiences at Maynooth University, affirms the importance of targeted, supported entry routes to third level as a way of extending equality of opportunity for those who might not otherwise attend. The qualitative findings highlight the sometimes life-changing impact of student participation on the programme. Stories were shared of enriching educational experiences, renewed employment opportunities and, for some, progression to postgraduate studies. The influx of mature students which the FCs enable, not only supports individual progression, it also benefits the wider student population through the infusion of a broader range of life-skills and experiences into campus life.

Whilst the majority of FC students progress to undergraduate studies within Maynooth University (54%), there are some challenges to be considered. Amongst these are high non-retention rates, both at FC and undergraduate level, and limited subject choices for FC participants. More broadly, there is also a growing trend within access provision for alternative modes of delivery other than the single-institution model which has, to date, been the most common (Murphy, 2009). This requires Maynooth University to consider such changes in determining future development of the FCs.

The purpose of the study

This research offers an overview of the FCs since pilot delivery in 2002/03 to 2013/14. It measures characteristics and performance for FC students, and explores their experiences of participation. It also determines progression pathways, retention, and performance rates at undergraduate and postgraduate level and complements this with insight into experiences as undergraduates gathered through one-to-one and group interviewing. It uncovers challenges they face, and inquires into future suggestions for change. Participant insight is also sought from others involved; support staff, tutors, and other key stakeholders. These findings are all contextualised amidst access-related institutional and policy ambitions.

Research objectives have been summarised into specific questions as follows,

1. In what way are the FCs satisfying equity of access criteria?
2. What are the curricular and wider support experiences of students on the programme?
3. What are the progression, retention and performance rates at certificate, undergraduate, and postgraduate level?
4. Considering their context, purpose and resource allocation, in what way can the FCs be considered cost effective?
5. What is the most sustainable model for FC delivery into the future?

Research – timeframe, methodology and methods

This research was carried out over a five-month period from April to August, 2014. It utilises a mixed methods approach which sought characteristics, academic performance, and perspectives from past-students, key-staff and other stakeholders. Together, qualitative and quantitative findings are used to inform an integrated analysis which offers suggestions for future discussion and some specific recommendations relating to course delivery.

Quantitative findings were generated from anonymised data on all 271 students to register across FCs in Science, in Engineering, and in Finance, Economics and Venture Management between 2002/03 and 2013/14.

Students were also asked, via postal or email invitation, to participate in a concurrent strand of qualitative research that utilised focus groups, one-to-one interviewing and e-interviewing. In total, 24 students/past-students participated. This represents 9% of the FC student population. Their experiences are shared alongside insight from 12 purposefully selected

core FC staff and tutors, relevant university Heads of Department, and other strategic staff (as identified with the Access Office). Before offering a summary of key findings, recommendations, and areas for future consideration, it is useful to position discussion with an overview of related concepts of access, and the wider educational context.

Concepts of access

Broadly speaking, structured ‘access’ is a process undertaken to widen third level participation and completion for under-represented population groups (O’Reilly, 2008: 7-8). These under-represented groups include: the socially and economically excluded (including Travellers and those from other ethnic minorities); people with disabilities; and mature students (over 23 years). Although emerging in the 1990s from within Higher Education Institutions (HEIs), national coordination was enhanced in 2003 due to the establishment of the National Office for Equity of Access to Higher Education (National Access Office) within the Higher Education Authority (HEA).

The National Access Office has encouraged each HEI to devise a statement on access provision and the current Maynooth University strategic plan states - ‘We will sustain our success in widening participation in higher education, strengthening access programmes and mainstreaming and integrating our supports for student success’ (NUIM, 2011: 19).

The wider educational context

The report has been commissioned within a time of considerable change for education provision in Ireland. Most notable has been the incorporation of the National Framework of Qualifications (NFQ), HETAC and FETAC¹ into the newly-created Quality and Qualifications Ireland (QQI). A core function of the NFQ is to ease access, transfer and progression along a ladder framework offering the potential for streamlined progression from Further Education (typically levels 1-6) to Higher Education (typically levels 7-10).

It is also an important time for the future of access provision. In 2014, the HEA consultation document *Towards the development of a new National Plan for Equity of Access to Higher Education* (2014b) noted expansion of access opportunities but measured this as below national targets previously set (HEA: 2014b: 7-8). The HEA document proposes four goals for future provision, 1) to promote access for disadvantaged groups to higher education, 2) to put in place coherent pathways from all education providers; schools, Further Education (FE)

¹ The Higher Education and Training Awards Council, and Further Education and Training Awards Council respectively.

providers, and other non-traditional entry routes, 3) to increase progression and retention rates, and 4) to support evidence-based policy-formation. The HEA invite consultation from education providers at all levels including FE providers (HEA, 2014b: 13) which reflects a current strengthening of FE provision and practice.

Existing Foundation Certificate (FC) Provision

A 2009 review of the national FC landscape undertaken by Murphy in 2009 provides an overview of 37 courses delivered across five universities, 10 Institutes of Technology, and two Colleges of Education. Murphy draws out three distinct modes of delivery and identifies the most common and most established of these as single-institution delivery. More recent models have been collaborative in their approach by sharing design and delivery with either other HEIs or FE Colleges (Murphy, 2009: 32-34). Some of these are well-established such as one run by the Trinity College Access Programme (TAP) - a collaboration between TCD and specific FE Colleges. In other cases, relationships between FC providers and FE contexts are informal and developed by key staff over time. Though relatively uncommon in Ireland (Hardiman, 2012: 15), FE involvement in access programme delivery is common outside of the Republic of Ireland. For example, neither of the two major universities in Northern Ireland offer campus-based FCs but have, instead, developed links and articulation agreements with various FE colleges to facilitate access for mature students. Further Education sectoral involvement is also common across other parts of the UK though it should be noted the history and contexts of access development is somewhat different to Irish experiences.

Limitation of research findings – establishing a cost-benefit

Issues encountered in comprehensively identifying programme costs created difficulties in the researcher's endeavours to complete a cost-benefit analysis of the FC programme. The researchers were limited in their ability to interpret financial accounts, therefore offer details on programme costs amidst considerable caution. A recommendation included with the report is for detailed liaison between cooperating faculties, administrative and financial departments, and the Access Office to ascertain a more complete financial picture for FC delivery. This would provide relevant resources for a comprehensive analysis of costings at a later date.

Overview of key findings, recommendations, and areas for future consideration

Maynooth University's FCs programme is one of the few in Ireland to offer a subject-specific pathway for mature students to progress to science-related degrees. The programme, nurtured at the institution by committed Access Office and academic staff, has evolved from its original broad curricular breadth to a more specialised focus on specific subject areas within the sciences. Students and staff involved in this research project expressed a strong sense of a rich educational, emotional and social value to the FCs which has produced inspiring stories of educational and occupational transformation. In better illuminating the work of the FCs, it is recommended the profile of the FCs is raised to include opportunities to showcase and celebrate its successes. Whilst this research is beneficial in highlighting these effects, it is important to note they are drawn from a small number of past students (9%) therefore not quantifiable findings.

Quantitative findings categorised through student characteristics, and performance, progression and retention are uncovered in detail within chapter four. Some measurable characteristics are summarised below.

- Seventy two percent of those registering for FCs are male whilst 28% are female.
- Six percent declare a disability.
- Thirty-two nationalities are identifiable across registering students.
- The majority (38%) reside in Co. Kildare with 32% residing in Co. Dublin and 10% residing in Co. Meath.
- Sixteen percent of registering students attended a DEIS designated school whilst 20% have been schooled overseas.
- The majority (51%) have previously engaged in non-compulsory education mostly through Further Education (FE) mechanisms.
- Where measurable, 66% are in receipt of Back to Education Allowance.

The research has also revealed key areas for future consideration for those involved in design and delivery of the FC programmes. Some of these are operational in emphasis and relate to possible areas for improvement within the realms of the current delivery model. The establishment of an ongoing formal review process would be beneficial in ensuring programme quality is maintained and enhanced. Additional consideration relates to the wider terrain of access provision and offers way in which pathways into the FCs, delivery of the

programme itself, and progression to undergraduate studies can be enhanced. Key findings, recommendations and areas for future consideration are thematically captured in response to research questions posed on page eight.

1. Foundation certificates and equity of Access

The Maynooth University FCs in Science and Engineering (and historically Economics, Finance and Venture Management) are specifically targeted to support mature student access to undergraduate studies within the Faculty of Science and Engineering.

As noted above, the study uncovered how many met dual (or more) criteria for entry by virtue of participation within the Delivering Equality of Opportunity in Schools (DEIS) programme, declared disability, ethnic minority, and/or receipt of Back to Education Allowance (BTEA). Additionally, 20% of participants indicate schooling overseas.

Whilst the majority of those accessing FCs hold a Leaving Certificate (59%), 26% list qualifications to Intermediate/Junior Certificate only, or list no prior qualifications. This demonstrates recruitment from those who have left school early.

Fifty-one percent have previously engaged within other tertiary educational settings. These were within FE Colleges or Higher Education Institutions (HEIs), apprenticeships, or a professional qualification.

The majority of students opt for the Certificate in Science (62%) with 21% choosing the Certificate in Engineering (CEN). Seventeen percent registered for the now discontinued Certificate in Finance, Business and Venture Management. However there has been an overall decline in admission across all FCs since 2009. Since 2012/13 just one person has registered for the CEN.

Recommendations and areas for future consideration

A core strength of the FC programme is its ability to reach learners in a variety of ways. Targeted recruitment through FE colleges and local communities is further encouraged. Additional recommendations on strengthening entry pathways are summarised on page 17 when considering future models of delivery.

Whilst some information could be gleaned from pre-programme application forms managed within the Access Office, enhancement of this process would enable the gathering of a more

comprehensive student profile. This could include inquiry into ethnic identity and could assist in measuring the needs of this emergent participant population.

2. Enhancing curricular and wider support experiences for students on the programme

In general, students placed a high value on the FCs and many talked about its transformative impact on their lives. Several claimed that they would not have completed their degrees without the FC and, along with a number of staff, felt that it provided invaluable academic preparation for undergraduate study.

As well as recognising its academic value, staff and student participants placed a high value on the social and emotional foundation which the FCs offered in preparation for the rigours of undergraduate study. There was a strong consensus that the formal and informal learning experiences encountered by FC students in a HE setting were important characteristics of the programme's worth.

It is evident the current curriculum meets programme objectives to introduce subjects relevant to future studies, to offer specific study supports, and to acclimatise participants to university life. There was some sense of a need to review the maths aspects of the programme to enhance its currency with certain departments. There was also a strong sense across staff and student participants that the FCs should, while remaining focused on science, be broadened to include some presence of biology and chemistry.

Findings also suggest that the programme has an implicit adult education culture embedded within it which is evident in aspects and features such as: small group and project work; recognition and respect of the diversity and challenges of mature student life; importance of motivation; importance of dialogic and safe spaces to reflect on learning experiences; importance of learning relationships; appropriate tutor facilitation skills; scaffolded-learning activities; individualised feedback; skills-based and practical work; and the need for spaces appropriate to learning activities. The positive contributions of key staff were consistently raised by student participants.

However, 37% do not complete the FCs within which 19% are recorded as failing the programme, and 6% are recorded as incomplete. Limited information is available for those who withdraw before completion. Where identifiable, these include financial reasons, personal, and medical considerations.

There is some uncertainty about roles, responsibilities and ownership of the FCs and sense of a need to acknowledge resource allocation more formally.

Although there were signs that the FCs were moving towards the ‘mainstreaming’ (e.g. in standardisation of exam processes) of access; a central tenet of Maynooth University’s Strategic Objectives for 2012-2017, there is still some work to be done on this.

Recommendations and areas for future consideration

The Access Office should consider strengthening relationships with students who are unsuccessful in FC studies. This would enable a truer picture of reasons for withdrawal as well as giving consideration to how students feel they might be better prepared for the examination process.

Expansion of FCs curricular content is recommended to ensure foundation studies across all undergraduate science-based study. Greater flexibility in delivery is also recommended to include laboratory-based learning delivery at week-ends.

Strong emphasis on study skills should be continued recognising its importance in creating dialogic spaces for participants therefore assisting group cohesion and identity.

In order to sustain and develop FC academic currency, formal curricular review mechanisms should be developed to maintain and enhance, where required, academic standards and quality across the programme.

Noting 20% of students as having been schooled overseas, and that these students are most likely to withdraw without successful completion, second-language support should be reviewed with needs monitored on a year-to-year basis.

Through the foundation year, strong links with undergraduate programme coordinators should be encouraged enabling more enhanced support for those who progress to undergraduate studies.

The programme should continue to develop its efforts to integrate appropriate operational aspects into the mainstream processes of the university. It should also continue to build on more recent endeavours to establish clear roles and responsibilities for various institutional stakeholders.

3. Progression, retention and performance rates

Notwithstanding non-completion rates at FC level, 54% of all students progress to further studies within Maynooth University. Seventy-five percent of all progression is to the Faculty of Science and Engineering, 23% of progression is to the Faculty of Social Science whilst 2% of progression is to the Faculty of Arts, Celtic Studies and Philosophy. Additionally, qualitative questioning uncovered a further few who progress to undergraduate studies within other HEIs. Reasons cited for choosing an alternative provider were the part-time nature of a particular programme elsewhere, and a preferred programme choice within another HEI.

Considering the total research population, 41% of those who begin the FC programme subsequently register for studies within the Faculty of Science and Engineering, 12% subsequently register within the Faculty of Social Science, and 1% register within the Faculty of Arts, Celtic Studies and Philosophy. Thirteen percent complete the FC programme only at Maynooth University².

Non-retention rates as undergraduate level are recorded at 39%. The most likely point of exit is failure to progress beyond first-year affecting 25% of all who progress. This is higher than national average rates for non-progression to second-year measured elsewhere at 16% (HEA, 2014: 17). Non-progression rates within Maynooth University more broadly were not available to researchers so a comparative with the general student population is not obtainable.

There are a small number (5%) who, to date, have progressed to postgraduate studies.

Recommendations and areas for future consideration

Majority progression to science-specific subjects demonstrates a need for a continued science-specific entry route; a sentiment strongly expressed by some research participants. As 25% of those to progress do so outside of the target faculty, this indicates some could benefit from a more general approach to access incorporating a broader range of subjects that mirrors progression potential in other Faculties. The Maynooth University Return to Learning Certificate offers such a pathway and close collaboration between the two is encouraged. A key non-subject related difference is compatibility with the Back to Education Allowance (BTEA). The full-time nature of the FCs in Science and Engineering enables those in receipt of Back to Education Allowance (BTEA) to attend. As the certificate in

² A small number who do not complete the FC programme do progress to undergraduate studies as revealed on page 73.

Return to Learning is offered as a part-time option only, those attending are ineligible for BTEA and associated waiving of fees offered to students on FCs in Science and Engineering.

Again, exit-interviewing for those who fail to complete their studies would assist in better establishing reasons for non-retention where these are unknown. This involves ongoing tracking by the Access Office post-completion of FC studies.

4. Considering their context, purpose and resource allocation, in what way can the FCs be considered cost effective?

The researchers were unable to sufficiently address questions relating to the cost effectiveness of the FCs under consideration. There is also complexity in attributing monetary value to any social and personal returns associated with efforts to address educational inequality.

Cautious estimations of €1,295 per student to the Access Office are proposed based on an annual budget of €28,500. This primarily covers external tutor staff and payment to the Faculty of Science for teaching and other supports. It does not include allocation for staff time within the Access Office, and some coordination duties held within the Faculty of Science. Also not accounted for are support costs to Maynooth University for registration, exam fees, and services, estimated elsewhere at €1,600 per student (Irish Universities Association, 2010: 6).

Totalling estimations (€1,295 plus €1,600) gives a combined cost per student of €2,895 to Maynooth University. As these exclude costs to Access support staff and coordination undertaken with the Faculty of Science, they are unreliable in ascertaining true student overheads. They also fall short of estimates of €9,000-€11,000 proposed elsewhere for Access FC students (FC providers discussion document, in Murphy, 2009: 127).

Whilst not all students successfully completed the programme, this does not negate the potential for benefits for this cohort, something revealed within qualitative conversations with researchers.

Recommendations and areas for future consideration

Although there is cost associated with the programme, it is this educational and social value which seems more important to a university that asserts its commitment to broadening and mainstreaming access routes and, more generally, reasserts the need for HE policy to adopt a longer view which focuses on the needs of individuals and society rather than short-term

economic goals. Notwithstanding this, a comprehensive review of all cost implications across all departments involved would enable a better estimation of costs per student.

5. What is the most sustainable model for FC delivery into the future?

In light of the changing external environment in relation to access provision, this was a key question inquired into within this study and involved consideration of alternative delivery options, including the involvement of the Further Education (FE) sector, as recommended elsewhere (Murphy, 2009, HEA, 2014a). Amongst student-participants there was a strong desire for continued on-campus delivery. Reasons for this were acclimatisation to university life, and the specialist nature of science-based subjects on campus. Overall most participants remained unconvinced that a FE-based foundation model, alone, could offer the required supports though there was some acknowledgement that FE could play an important part in a broader or longer learning journey for students entering the sciences.

Recommendations and areas for future consideration

A collaborative model for the FC programme is proposed ensuring sustainable growth of the programme across three areas:

- Pathways into the FC
- Delivery of the FC
- Progression out of the FC

These three areas mirror the milestones for FC students on their journey into, through and as they exit the FC. Constructive developments of the FC programme at each stage in this cycle are proposed to enhance its overall efficacy and, by extension, the experience of its students.

Pathways into the FC

In order to address concerns arising within this study about the academic preparedness of FC students for undergraduate studies, it is proposed the Access Office collaborate with FE providers to develop clear academically-enriched and relevant pathways.

In essence students who have an ambition to study the sciences at Maynooth may be directed towards a two-year foundation journey. These students would commence on a level 5 programme in an FE setting and, on successful completion, progress to the FC's level 6 programme at Maynooth. This longer pathway would enhance the academic capacity for mature students to succeed beyond the FC programme. It is also important that Maynooth

staff have autonomy to make decisions about applicants regarding the most appropriate entry point: i.e. at level 5 in FE or direct to level 6 at Maynooth.

In advancing this, existing FE programmes such as VTOS should be explored as well as the development of structured pathways within FE Colleges. A degree of inter-institutional collaboration with administrative and, in particular, academic staff will be required, particularly at the initial stages, to establish these pathways.

Delivery of the FC

The curricular and operational recommendations which have been proposed would take place in the context of one of three models of delivery: Single-institution; HEI-HEI collaboration; or FE-HEI collaboration.

1. Single-institution. If single-institution delivery is retained, there are opportunities for intra-institutional collaboration as well as closer collaboration between various stakeholder departments as outlined above. There is also potential resource and curricular benefits to exploring collaboration with the university's FC Return to Learning programme.
2. HEI-HEI collaboration. There may also be benefits to exploring collaboration with existing HE partnerships (i.e. 3U Partnership, and regional clusters) in FC delivery. Resource issues such as laboratory availability and tutor suitability and costs may be addressed in such HEI collaboration.
3. FE-HEI collaboration. Despite the reservations of participants, it is also worthwhile exploring FE-based or shared delivery. Trinity College Dublin's TAP programme provides a useful model for FE-HEI collaboration. Similarly examples of articulation agreements in other jurisdictions such as Northern Ireland and Scotland may assist. The success of these latter models is based on years of collaborative inter-institutional work to develop agreements which ensure the curricular quality and relevance of the FE programmes. A shift to an FE-HEI or exclusive FE model would require a commitment, particularly from teaching staff in both settings, to develop similar curricular and administrative agreements and processes.

Progression from the FC

Another collaborative consideration across HEIs relates to progression into undergraduate studies. Partnership with existing and developing HEI partners (3U Partnership and the regional clusters) could be developed, again through articulation agreements where cooperating institutions reciprocally endorse programmes in a way that enhances student mobility between the partner HEIs. Alongside offering more choice to FC graduates at Maynooth University, this would also open up another mature student pathway into undergraduate studies at Maynooth from partner institutions.

A collaborative model of FC for Maynooth University

A more collaborative FC model (Figure 1) emerges from this consideration of research findings and existing models. This needs to work at a number of levels: within the stakeholder departments at Maynooth; between Maynooth and FE; and between Maynooth and its HEI partners. A future collaborative model should consider the three elements of the programme as proposed: an optional elongated pathway into the FCs delivered in cooperation with FE providers; possible shared delivery and management of the programme with either FE or HE providers; and increased progression pathways through involvement of other partner HEIs.

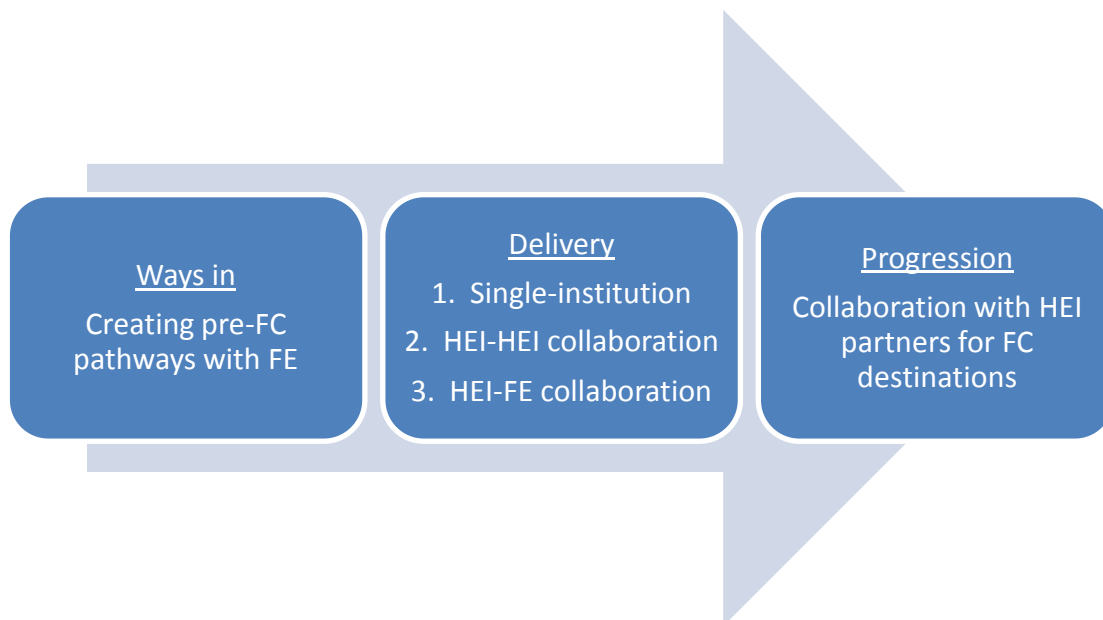


Figure 1: A collaborative model for the FC

At the core of the collaborative model is the principle that the academic and occupational interests of mature students returning to study are best-served by enriching educational experiences and opportunities at each stage on their journey into, through and beyond the FC programme – such principles are best realised by authentic collaborations within and between education institutions.

Conclusion

This study reviews the FCs in Science, Engineering and the now-ceased Finance and Venture Management. It identifies many positives to the programmes particularly shared through student testimony on the impact participation has had on their lives. Many state they would not have been able to consider undergraduate studies without this vital year. The study also demonstrates the importance of its science-specific focus preparing students for the intensity of studies at undergraduate level and recommends continuation of this approach.

It does note high non-retention rates at both FC and undergraduate level. It recommends future consideration of programme delivery to improve retention and progression through a three strand approach, pathways onto, delivery of, and progression from the FCs. This can be done in collaboration with other educational providers, both within the FE and HE sectors, with the former potentially serving an important role in preparing potential students for university-based study. A generalised summary of recommendations is presented overleaf.

Generalised summary of recommendations:

- Revise information-gathering processes at various stages of the FC student journey to maximise institutional knowledge of students' cultural and social diversity and, if relevant, attrition motivators.
- Establish a formal and ongoing programme review process, which should include student participation, to monitor and respond to curricular/academic content, supports relevancy and standards. Such a process would also systematically review administrative, coordination and management processes, structures, roles and responsibilities.
- Enhance communication and networking with and between relevant institutional stakeholders within the university.
- Maintain science-focused FC but expand to offer all sciences offered at undergraduate level.
- Explore links with partners in FE and HEIs to develop coherent and longer pathways into, and out of, the FC programme.
- Explore opportunities for celebrating the successes of the FC.
- Consider alternative models of delivery that could reduce expenditure whilst not compromising student experience.
- Consider abolishing the fees for the FC programme to bring it in line with many of the similar HEI-based access and foundation programmes.
- Consider developing a specific Access policy which may benefit future strategic planning in this regard.
- Establish a working group to review the findings and implement recommendations from this report.
- Consider similar research on the Certificate in Return to Learning.

Chapter One - Introduction to Research

Introduction

Structured foundation programmes have been a consistent feature of the access to Higher Education (HE) landscape for many years. Broadly speaking, their purpose is to improve access to undergraduate HE programmes for those least likely to avail of their right of entry through traditional routes. Foundation Certificates (FCs) ease this transition introducing prospective students to their subject area, orientating them to campus life, and providing support in early development of study skills such as academic reading and writing.

In line with common interpretations of access, the right of entry in question is specifically targeted at under-represented population groups. Specific target groups are named by The National Office for Equity of Access to Higher Education (National Access Office) within the Higher Education Authority (HEA) as,

- Those who are socially, economically or culturally under-represented in Higher Education.
- Mature students.
- Students with a disability.

The FC in Science, Engineering and Finance, Economics and Venture management.

This research, commissioned by the Access Office at Maynooth University, in collaboration with its partners within the Faculty of Science and Engineering, shares its experiences from 12 years delivery of Foundations Certificates (FCs) in **Science**, in **Engineering** and in **Finance, Economics and Venture Management**. Situating these programmes amidst broader national provision, a number of research questions are addressed:

1. In what way is the FCs satisfying equity of Access criteria?
2. What are the curricular and wider support experiences of students on the programme?
3. What are the progression, retention and performance rates at certificate, undergraduate, and postgraduate level?
4. Considering their context, purpose and resource allocation, in what way can the FCs be considered cost effective?
5. What is the most sustainable model for FC delivery into the future?

These questions are addressed through a mixed-methods approach to research, further details of which are contained within chapter four.

Structure of the Report

Following this brief introductory chapter, the report is presented across seven chapters. Chapter two assesses the wider access terrain as relevant to FC delivery including identification of relationships between Further Education (FE) and Higher Education (HE) providers in this regard.

Chapter three focuses on the Maynooth University Access Programme, and specifically, the FC programme which exist within a broad range of access provision. It provides information on the activities and mission of the Access Office, and positions its work within the wider Maynooth University Strategic Plan. Drawing from qualitative and documentary data uncovered in the research, it sketches a historical account of the FCs under examination.

Chapter four details the research design, identifies the research population and outlines limitations to the study.

Chapter five reveals students' characteristics, including age, gender, and nationality. It also details previous educational settings and achievements. Also provided is performance within the programme which measures progression, retention and completion at FC, undergraduate and postgraduate level.

Chapter six focuses on the qualitative methods, data and themes emerging from engagement with students and key staff stakeholders associated with the FC programme. It outlines the methodological issues and approaches employed by the researchers to explore student experiences. Staff engagement not only provides some qualifying texture to data on student experience but is also an important source of data in terms of reviewing and identifying curricular and institutional strengths and areas of development for the FCs.

Chapter seven draws from qualitative and quantitative findings, and a desk-based review of provision in Ireland, Northern Ireland and Scotland to examine potential models for future FC delivery.

Chapter eight concludes the report by offering further analysis of findings uncovered. It also offers recommendations in mapping the way forward for the FC programme.

Chapter Two – Broad overview of National Access Policy and Provision

Introduction

The purpose of this chapter is to contextualise Foundations Certificates (FCs) within wider provision by tracing the evolution of access nationally. It does this by first considering concepts of ‘access’ and ‘Foundation Certificates’ and their relationship with Higher Education (HE) before offering broader discussion on the development and expansion of access provision in Ireland. This is traced through government and institutional responses and also includes provision within Further Education (FE) and Community Education sectors. It details many advances in access provision whilst also highlighting potential shortfalls.

Access and Foundation provision

Whilst difficult to define, ‘access’ can be interpreted as a process undertaken to widen HE participation and completion for under-represented population groups (O’Reilly, 2008: 7-8). *Foundation Certificates* (FCs) are a consistent feature within access provision, best understood as specially-designed, structured programmes that offer a pathway to certain Higher Education Institution (HEI) undergraduate programmes.

Commitment to equity in access has been a consistent feature of successive government policy since the 1990s. It is also important within European Union (EU) policy which demonstrates a commitment to widen participation through flexible, affordable learning pathways (EU, 2007). In summarising recent achievements in this regard, the HEA (2013: 2) include,

1. Increase in student numbers availing of Access particularly an increase in students with disabilities.
2. Improved programmes for Access students including more part-time options and greater curricular choice.
3. Greater integration across Institutions.
4. Increased capacity of access staff through continuous professional development.
5. A range of research publications informing the work.

Whilst much has been achieved by access through ongoing commitments and continual targeted efforts over almost 30 years, inequality of access remains a feature of third-level entry with economic and social inequalities consistently measured as determinants in who goes to college (Clancy, 2001; O’Connell *et al*, 2006; McCoy *et al*, 2014). In addressing this,

efforts to further extend participation have recently been described as a ‘national priority’ by the Higher Education Authority of Ireland (HEA, 2014: 3).

2.1. Government policy supports for access

The roots of access go back some way and can be traced to the joint initiative by the Irish government and OECD, *Investment in Education* (1965). This helped introduce a free secondary schooling system which substantially expanded equality of opportunity within post-primary schools. Investment in Education also introduced a disadvantage paradigm within Irish education framing this within existing OECD perspectives of ‘family background, location and attainment’ (Government of Ireland, 1965: 110).

In the decades since, many attempts have been made to address this disadvantage at each stage of the education system. These begin in early childhood with free pre-schooling and targeted prevention and early intervention programmes. At primary and second level, the core intervention is the system-wide Delivering Equality of Opportunity in Schools (DEIS) programme introduced in 2005 and targeting specific communities. Additionally a special needs assistance scheme is available across the school system.

The abolition of fees for Higher Education in 1996 was undertaken with an equality focus in mind and as a specific measure to broaden entry to HEIs beyond traditional college-going populations. Additionally, financial barriers to HE are addressed through student grant schemes governed by the *Student Support Act* (2011), though it should be noted concerns have been expressed on the insufficiency of these grants, and rigid eligibility criteria that leave many falling outside set parameters (Cullinane *et al*, 2013).

Commitment to targeted access is broadly cited within education policy including the *Higher Education Authority Act* (1971), the *Universities Act* (1997), and the *White Paper: Charting our Education Future* (1995). These encouraged focussed support programmes within Higher Education Institutions (HEIs) which to date are most commonly implemented through specialist Access Offices.

In charting a historic boundary for the expansion of access-specific programmes, the 1990s stands out as the most significant decade. It was during this period access expanded provision to include students with disabilities, mature students and students from ethnic minorities - particularly Travellers. This was made possible by specific government funding to universities in the late 1990s and ring-fenced financial commitment within the *National*

Development Plan (NDP) 2000-2006. Recommendations made within *The Report on the Action Group on Access to Third Level Education* (Government Publications, 2001) were particularly important in deciding how this funding was to be allocated. This included the establishment of The National Office for Equity of Access to Higher Education (National Access Office) within the Higher Education Authority (HEA) in 2003.

The central functions of the National Access Office are set out as follows,

- The management of access-related funding programmes.
- The development, implementation and ongoing monitoring of a National Plan on Access.
- Engaging with HE providers and the public at large to promote the concept of access in a way that ensures relevant supports are put in place.

(HEA, 2014)

Since 2003, the HEA have been central to the design and dissemination of related policy with core publications including *Achieving equity of Access to Higher Education in Ireland Action Plan 2005-2007*, *Evaluation of Access Programmes* (2006), *External Audit of Equal Access Survey* (2010), and the now concluded, *National Access Plan for Equity of Access to Higher Education 2008-2013* (HEA, 2008). This latter initiative committed to addressing the needs of middle and low income families and recent immigrants (HEA, 2008: 11). It established policy objectives as follows,

- To prioritise equality in access within wider HEA and HEI strategic planning.
- To expand entry routes to include part-time and flexible options.
- To address financial barriers to participation in HE.
- To commit to providing the required supports for people with disabilities.

Specific initiatives were introduced during the lifetime of this strategic plan including expansion and standardisation of some locally developed supports. These included extension of the Disability Access Route to Education (DARE) scheme which supports students with disabilities, and the Higher Education Access Route (HEAR) which supports students from backgrounds considered socio-economically disadvantaged. Whilst DARE/HEAR have strengthened and somewhat standardised access, some difficulties in implementation were documented within an HEA external audit (HEA, 2010a). Furthermore, an evaluation of DARE/HEAR undertaken for Maynooth University by Byrne *et al* (2013) noted difficulties

that can emerge as a result of varying approaches across HEIs. Their report claims some HEAR programmes continue to disadvantage those most in need through ongoing minimum entry requirements, whilst some DARE supports fail to fill all allocated spaces (Byrne *et al*, 2013). The current HEA consultation document, *Towards the development of a new National Plan for Equity of Access to Higher Education* (2014b), has undertaken to adopt recommendations made by Byrne *et al* (2013) relating to DARE/HEAR provision (HEA, 2014b: 9).

Towards the development of a new National Plan for Equity of Access to Higher Education (2014b) also proposes four goals for future provision;

1. To continue to promote access for disadvantaged groups to higher education.
2. To put in place coherent pathway from all education providers; schools, FE providers, and other non-traditional entry routes.
3. To increase progression and retention rates.
4. To support evidence based policy-formation.

The HEA invited consultation from education providers at all levels including FE providers (HEA, 2014b: 13) reflecting a current strengthening of FE provision and practice and of a desire to further strengthen relationships between the two sectors.

When emphasising mature student entry, *Towards the development of a new National Plan for Equity of Access to Higher Education* (2014b) again notes increases in participation rates but records these as below HEA targets set for 2013. Reasons given are named as current national economic conditions, ongoing financial barriers including fees for part-time programmes, and inadequate supports such as childcare (HEA, 2014b: 9). The document proposes improved national systems of guidelines for adults in order to enhance knowledge of what is available to them, and further expansion of alternative routes of admission. The FCs in Science and Engineering under examination in this research would seem to offer one such alternative.

2.2 Institutional measures to support access to HEIs

Much access provision emerged from within institutions themselves before incorporation within policy developments detailed thus far. In responding to educational disadvantage, actions taken within HEIs have varied considerably and incorporate a broad spectrum of

approaches. To demonstrate, appendix 1 provides an account of current access provision across Leinster institutions.

One common occurrence has been a forging of relationships with local and specifically targeted schools. These incorporate a range of initiatives such as in-school programme delivery, visits to HEIs, and mentoring programmes - some of which incorporate access via HEAR/DARE routes.

Typically those over 23 years are eligible to apply for specifically reserved places on designated programmes. These mature student entry routes commonly offer a revised points entry option or waiving of minimum entry requirements when set against traditional points allocation through standard Central Admissions Office (CAO) applications. Additional eligibility measurements are also not uncommon such as once-off examinations and interviewing. A limitation of much mature student entry is its emphasis on full-time studies which makes it difficult for many adults wishing to return to education following time away from formal studies.

2.3 Overview of Foundation Certificates

As is the case with the FC under examination, many such programmes are specifically targeted at those seeking entry through mature student entry routes. Foundation Certificates set out to ease the transition to undergraduate studies by,

- Introducing prospective students to their subject area.
- Orientating them to campus life.
- Providing support in early development of study and academic skills.

Whilst many FCs have been operating for many years emerging from within HEIs in the 1990s (Murphy, 2009: 118), specific discussion on their positioning within the landscape of Access provision particularly emerged in 2007. This was within the consultation paper - *Towards a new policy approach to higher education access courses, why is there a need for a new policy approach to access courses?* The paper, disseminated by the National Access Office³, emphasised the importance of FCs in enabling students to forge relationships with

³ This consultation document was commissioned by representatives from HEIs involved in FC provision, the Irish Universities Association, the Institutes of Technology Ireland (IoTI), the Dublin Institute of Technology, the HEA, and the Department of Education and Science.

HEI staff, in becoming familiar with third level environments, and in building capacity to negotiate study and curricular demands (in Murphy, 2009: 119). It further details FCs as particularly beneficial for adults returning to education following a gap of a number of years. Some concerns were also cited including lack of clarity on transfer and progression across HEIs. Other concerns included absence of approval for student support schemes and free fees initiatives, and the lack of detailed analysis on average costs per student which ‘appears to be high compared to other higher education courses’ (in Murphy, 2009: 127).

A particular outcome from this consultation process was commissioning of *Higher Education Access/Foundation Courses, A Research Report*, by Murphy in 2009. This offers the most comprehensive national review of FCs to date identifying 37 FCs across 17 providers. These FCs cater for a range of non-traditional students including, young adults, mature students, people with disabilities and ethnic minorities with the majority delivered part-time with some offering both full-time and part-time options.

Murphy (2009) also details three modes of delivery,

- Programmes delivered in partnership with Further Education (FE).
- Programmes delivered in partnership across Higher Education (HE) providers.
- Programmes delivered by individual HE providers alone.

This latter model is named as the dominant mode of delivery greatly outweighing collaborative delivery options.

Higher Education Access/Foundation Courses, A Research Report also notes how a range of ‘current debates point to the need for clarity and an integrated strategic direction in relation to a number of areas’ (Murphy, 2009: 17). These are named as,

- The diverse landscape of access course provision that is developing across the HE sector nationally.
- The different models of practice currently delivered across HE institutions.
- The current policy and funding context within which access/foundation courses operate.
- The range of access, transfer and progression opportunities and their relationship with the National Framework of Qualifications (NFQ).

Emphasising the unique contribution of FCs, Murphy (2009: 13-14) identifies key areas for further consideration. These are the potential for FC experiences to expand broader insights into barriers to participation, with the researcher noting how effective networking with local and regional partners has helped to address obstacles. Also proposed is further collaboration across HEIs and with FE institutions including the establishment of cross-organisational practitioner forums where appropriate delivery mechanisms can be further explored. A national awareness campaign across stakeholders is also suggested.

2.4 Access relationships between Higher Education (HE) and Further Education (FE)

A further observation by Murphy (2009) is difficulty in mapping the landscape of access provision outside of HEIs. The section, attempts to somewhat address this updating knowledge in this regard.

Though a common approach across UK models, dedicated access programmes within FE remain a relatively uncommon feature of FE provision in Ireland (Hardiman, 2012: 15). This is not to say progression from FE to HE does not occur. Recent figures released by Qualifications and Quality Ireland (QQI) demonstrate a progression rates of 18% of those graduating with level 5 major awards to studies within HEIs (QQI, 2013: 10). Undoubtedly influential in achieving this, many FETAC awards designed by providers during the 1990s and 2000s lent themselves to educational progression. These include certification at level 4/5 in *Back to Education*, *General Studies* and *Return to Learning*.

In some instances partnerships have evolved into formal admission mechanisms (as will be detailed). However, Hardiman (2012: 15) notes mature students within FE who progress to Higher Education outside of specifically tailored programmes are perceived as less equipped for third level study than those attending dedicated FC programmes within HEIs.

In support of progression, partnership approaches between HE and FE providers have been fostered by both sides since the 1990s (McIver, 2006; O'Reilly, 2008). Much impetus for developing relationships often emerged from within the FE sector (McIver, 2006: 32). Previous research detailing relationships can be found within two primary sources. The *McIver Report* (2006) commissioned by the National Qualifications Authority (NQA) and some information within the aforementioned *Higher Education Access/Foundation Courses* report carried out by Murphy in 2009.

The McIver report

Indicative of the Access terrain of the time, much focus within the *McIver Report* (2006) is towards progression from HETAC awards at levels 6/7, and transfer/progression from non-FETAC awards many of which were granted by UK accrediting bodies. It claims well-established transfer mechanisms from FE to HE with primary coordination of transfer through HEI admissions offices, and by direct contact with those involved in specific academic programmes. McIver notes how many approaching HEIs with FETAC qualifications, are also eligible for entry as mature students. This dual eligibility eased entry into specific programmes. Reviewing progression from FETAC awards, the *McIver Report* (2006) raises some concerns namely,

- Disparity in value awarded to FETAC qualifications across HEIs.
- Increased demands placed on students to score highly at FETAC level (particularly in healthcare related programmes).
- The chance that strengthening access provision might negatively affect the broader sentiment of the awards as a stand-alone qualification.

Another observation is of particular emphasis on certain programmes including child-care, social-care and nursing. Expressing the potential for this to be further expanded the report notes,

There is an interest in using progression routes to boost numbers taking science and technology courses, although the scope for this tends to be limited by the relatively small number of students taking further education science courses, and by the need for strong mathematical capabilities in many technology disciplines. (McIver, 2006: 34)

Higher Education Access/Foundation Courses: A Research Report (Murphy, 2009).

Murphy (2009) emphasises difficulty in capturing the terrain of access, transfer and progression from FE programmes citing a lack of available quantitative and qualitative data. This, she asserts, makes it impossible to ‘engage in any significant analysis of progression trends from FE courses to Higher Education’ (Murphy, 2009: 6). She does provide some insight outlining some detail on partnership arrangements across providers both formally and informally. The former includes commitment to developing FETAC and HETAC programmes designed to address need within specifically targeted communities (Murphy, 2009: 42-44).

Some information on how progression is supported can be gathered, although, as identified by Murphy (2009), gaps in data available persist particularly when considering interventions by community education providers.

Formal relationships between provider types are most notably through the **Higher Education Links Scheme** (HELs) and the **Pilot scheme**, both applicable to QQI (formally FETAC) major awards at levels 5 and 6. These exist alongside structured partnership arrangements.

2.4.1. The Higher Education Links Scheme

The Higher Education Links Scheme (HELs) has a strong history of access to Institutes of Technology (ITs) since the late 1990s (McIver, 2006: 31). HELs offers progression within a range of participating HEIs including some universities⁴ and private colleges. Not all certificates within the FETAC suite of programmes qualify for HELs, and not all HEIs participate in the programme. Criteria for entry vary with some institutions carrying additional requirements on top of FETAC qualification. Some also request a major award is achieved over one year only, and not over a number of years as is possible with FETAC awards (FETAC, 2011).

2.4.2. The Pilot Scheme for FETAC level 5 and level 6 certificates

Similar to the HELs, the Pilot Scheme facilitates progression to Higher Certificate, Ordinary Degree, and Honours Degree via certain FETAC level 5 and level 6 certificates. Most course places are open to FETAC applicants alongside those seeking entry through leaving certificate with applications coordinated by the CAO. Some courses carry pre-requisite component requirements (i.e. certain subjects must have been studied)⁵.

Differentiation between these programmes is difficult to ascertain and with the creation of QQI, emphasis is most notably towards HELs as the preferred entry mechanism. However some FE Colleges continue to advertise entry through the Pilot scheme alongside HELs entry routes.

⁴ Maynooth University is listed as a participating HEI within FETAC information on HELs.

⁵ Information on the HELs and the Pilot Scheme have been sourced from (FETAC, 2011).

2.4.3 Partner relationships between FET providers and HEIs

Formal partnerships have also been forged in the development and support of specific programmes tailored towards access to HEIs. One such arrangement is between the City of Dublin Education and Training Board (ETB) and Trinity College, Dublin. This is through the aforementioned Trinity Access Programme (TAP); a partnership arrangement between Trinity College and three Dublin based FE colleges namely Pearse College, Plunkett College and The Liberties College. The aim is to offer an alternative route for students whose socio-economic circumstances have impacted life-chances thus far. TAP FCs parallel a Liberal Arts certificate, also tailor made as a preparation for HE with successful candidates eligible to apply through the dedicated spaces within the Trinity HEAR scheme.

2.4.4 Access and Community Education Providers

In addition to access mechanisms within FE Colleges, there have been a range of responses from Community Sector and community education providers. These include initiatives at local level designed to promote HEI access programmes, and a fostering of relationships between HEIs and community education providers (Maxwell and Dorrity, 2010). Within the Local and Community Development Programme (LCDP) some LCDPs utilise funding from Pobail towards supporting entry to HE. One example is through the employment of a dedicated Access Officer as is the case with the Dublin based, Ballyfermot/Chapilized LCDP. Their Access Officer carries a remit that includes providing information and support on access mechanisms within HEIs.

Additionally some locally based groups have emerged offering pre-university supports. These include The Jesuit University Support and Training (J.U.S.T) Programme, in Dublin 9. Alongside local supports to those currently attending HEIs, it offers what it calls a ‘pre-university programme’ providing information and support in CAO applications alongside study skills such as essay writing and exam supports. Similarly the Salesian Education Initiative, located in Dublin 24, offers informal structures of support provided for largely through voluntary effort⁶.

Community education providers within ETBs involved in the delivery of Vocational Training Opportunity Scheme (VTOS) also offer a potential access route providing information and support on access to participants. Relevant to the FCs under examination, some VTOS

⁶ Information on this initiative is difficult to source beyond researcher knowledge of this programme.

programmes offer Junior, Leaving, and FETAC level 5 certification in Science and Mathematics.

It is unclear how many such programmes exist or the extent to which community education providers informally support access through such things as informing those completing FETAC qualifications of course options and financial supports available, and assisting with CAO applications.

2.5 Changes to Further Education Provision in Ireland.

Further contextualisation for these initiatives should also be considered amidst significant change to education provision for FE providers in recent years. This has been summarised as follows,

1. The National Framework of Qualification (NFQ) introduced in 2003 because of Ireland's commitment to the European Bologna Declaration (1999) and the lesser known Copenhagen Declaration (2002). Both commit members to the creation of a framework of transferable credit weighted measurements of learning. The NFQ offers 10 tiers of learning with levels 1-6 broadly speaking relating to FE qualifications and providers⁷, with levels 7-10 the domain of HE providers.
2. Quality and Qualifications Ireland (QQI) was legislatively created in 2013 through the merger of HETAC, FETAC and the Irish Universities Quality Board (IUQB). QQI is now the core accrediting body in Ireland alongside the State Examinations Commission for Junior and Leaving Certificate.
3. Seirbhísí Oideachais Leanúnaigh Agus Scileanna (SOLAS), also created in 2013, has replaced Vocational Educational Committees (VECs) also merging FÁS within. Education and Training provision previously held by these entities is now provided by a nationwide structure of 16 newly-established, Education and Training Boards (ETBs). Whilst ETBs are responsible for the bulk of FE provision, Community Sector organisations continue to carry potential to offer accredited training with 24% of all registered FETAC providers listed as Community and Voluntary Sector organisations (<http://www.fetac.ie/fetac/listProviders.do>., sourced April, 2014).

⁷ Some FE colleges offer awards at level 7 through partnership approaches with HEIs or the utilisation of UK based accrediting bodies.

4. The Common Awards System (CAS) was finalised in 2013 signifying the merger of all previous FE accrediting bodies into one unified system. This extended the reach of the HELS in particular to incorporate a greater range of awards.

These changes have implications for access. The creation of the NFQ and QQI both strengthen curricular frameworks facilitating ease of progression across the NFQ with all awards now measurable and accredited by the one body. However changes also pose potential problems. The creation of SOLAS may limit the local range of delivery through Community Sector providers (AONTAS, 2014; Fitzsimons, 2014; O'Reilly, 2014). Additionally, BTEA's rigidity in funding vertical progression only, means those with previous qualification at a particular level are restricted from undertaking further study at the same level even where they wish to change the direction of their studies.

Conclusion

This chapter offered an overview of access provision in Ireland. It demonstrates how much provision emanated from within HEI settings, with much variety in supports offered. Government policy and organisational provision through the National Access Office has assisted in standardising practice to the benefit of recipients most notably through DARE/HEAR pathways. Existing relationships with FE providers are detailed, both formal and informal, contextualised within an account of recent significant changes to education provision in Ireland.

Chapter Three – Access and the Foundation Certificate programme at Maynooth University

3.1 Access at Maynooth University

The general aims of the Access Office at Maynooth University are to facilitate under-represented groups' progression to, and through, university via a provision of a range of personal, financial, and academic support structures and processes.

Nearly a third of all undergraduates at the university are mature students, students with disabilities, and school leavers from socio-economic disadvantaged backgrounds. In fact, Maynooth has the highest rate of mature student entrants in the university sector (Maynooth Access Programme, 2014).

The Foundation Certificates (FCs) in Science and Engineering represent just one strand of a number of initiatives and services provided by the Maynooth Access Programme (MAP or 'Access Office') which is led by the Director of Access and a team of 13 staff and associated staff.

3.1.1 Mature Student entry route

Most mature students enter Maynooth University programmes through mainstream mature student entry routes. For full-time programmes, applicants must be 23 years or over. For part-time programmes, applicants must be 21 years or over. Mature student applicants are evaluated on a holistic evaluation of academic, life and work experience, although many programmes have specific criteria for admission. Mature student applicants apply through the CAO system.

Each programme at Maynooth University has spaces reserved for mature student applicants. Up to 350 mature students enrol on Maynooth University programmes and it is university policy to reserve 15% of first-year undergraduate programmes for mature student applicants.

There is an extensive array of online and campus-based resources to support mature students through the various stages of applying and studying at Maynooth. These include: a designated mature student team working from the MAP offices; pre-application guidance; orientation programmes; a comprehensive mature student handbook; mature student society; and a range of other academic, social and counselling services which mature students are directed towards.

3.1.2 DARE and HEAR at Maynooth University

The Access Office works towards widening participation for students with disabilities and students from socio-economic disadvantaged backgrounds through the provision of its Disability Access Route to Education (DARE) and Higher Education Access Route (HEAR) structures, processes and programmes. Unlike the FC programme, DARE and HEAR are initiatives which focus on direct entry to undergraduate studies. The FC programme is a preparatory course which may, on successful completion, lead to further study at the university.

The DARE programme guarantees qualifying students that the university will: reserve a quota of reduced-point places on all courses; assign them a dedicated Disability Advisor; provide access to innovative learning support programmes and Assistive Technology Centre; offer supports appropriate to the needs of individual students.

The HEAR programme guarantees qualifying students that the university will: reserve a quota of reduced-point places on all courses; provide financial support throughout their degree for some; and give them access to a designated student advisor (Maynooth Access Programme, 2014).

Five percent and 4% of first-year intake are reserved for students entering the university through DARE and HEAR routes respectively.

In addition to the FCs, DARE and HEAR programmes and processes, the Access Office offers a wide range of initiatives and support mechanisms designed to widening HE participation for prospective and current students.

3.1.3 The Certificate in Return to Learning

The university's Department of Adult and Community Education run a programme which, like the FCs, is designed to both broaden and facilitate access routes to HE through a one-year certificate programme. Like the FC Certificate, the Return to Learning Certificate is designed as a preparatory, pre-undergraduate course for people who have not studied in formal contexts for a number of years and are interested in applying to university. Students cover a number of personal development, academic, and study skills modules and are exposed to a broad range of academic subjects to help facilitate informed-choice on progression options. This Level 5 course, available on campus and at a number of outreach locations, is delivered and assessed by practices aligned with adult and community education

principles and beliefs. Students who obtain a grade of 60%, or above, will automatically be offered a place on the Bachelor of Arts degree programme at the university. Unlike the FCs in Science and Engineering, which is delivered and managed across a range of administrative and academic departments, the Return to Learning Certificate is coordinated, delivered and managed exclusively by the Department of Adult and Community Education.

3.2 Overview of the Foundation Certificate in Science and Engineering

The Foundation Certificate programme is run, collaboratively, by the Access Office and the Faculty of Science and Engineering. The Mature Student Office has responsibility, as part of a wider remit of duties, for a range of administrative, marketing, curricular and support services associated with the Foundation Certificate programme.

The Faculty of Science and Engineering, which is one of the university's three faculties (the other two being Humanities and Social Sciences), is comprised of eight academic departments and four research institutes. The eight departments within the faculty are: Biology; Chemistry; Computer Science; Electronic Engineering; Experimental Physics; Mathematical Physics; Mathematics and Statistics; and Psychology. There are a number of Faculty staff associated, to varying degrees, with the FC programme. However, the Faculty staff who are most centrally involved in the management and coordination of the FC on an ongoing basis are the Dean of Science, who has overall responsibility for the academic aspects of the programme, and the FC Coordinator, a member of the Faculty's academic staff, who is responsible for the day-to-day running of the FC. Relevant Departmental Heads are involved with the programme, if at more distance, in tutor selection and in the various curricular design and academic standard processes associated with the programme.

The aims of the FC programmes for Science and Engineering⁸ are:

- To reintroduce adults to study and learning and to give them the background they will need to embark on a course for a degree in science or engineering;
- To provide an access route for students who wish to take science or engineering when their secondary education did not offer the necessary subjects.

(Maynooth Access Programme, 2014)

⁸ These aims are based on the current FCs offered at Maynooth University. The Certificate in Economics, Finance and Venture Management was discontinued in 2011.

Applicants for the programme must be 22 years or more on the year of entry and be educated to Junior Certificate level (or equivalent) with maths. Applicants for the Engineering Certificate must, in addition, have a higher level of maths.

Although there are, currently, two distinct strands in the programme (Science and Engineering), five of the eight modules are common to both groups. Both cohorts undertake the following modules: Study Skills; PC Skills; Mathematics; Computer Science; and Experimental Physics. The sixth module for the Certificate in Science is Mathematical Physics. The sixth module for the Certificate in Engineering is Electronic Engineering.

The programme is a full-time day course run over one academic year. A minimum attendance of 80% is expected and there are exams in January and May. The current fee for the course is €900. However, students eligible for the Back to Education Allowance (BTEA) are exempt from course fees.

Students who successfully complete the science strand (with a minimum overall grade of 60%) will be guaranteed enrolment on the first year of one of the following Maynooth University degree courses:

- BSc Science
- BSc Computer Science & Software Engineering
- BSc Multimedia, Mobile & Web Development

Students who successfully complete the Engineering Certificate must, in addition, pass a Special Mathematics examination held in August, in order to be guaranteed enrolment on the first year of one of the following Maynooth University degree courses:

- BE Electronic Engineering with Computers
- BE Electronic Engineering
- BE Electronic Engineering with Communications

(Maynooth University, 2014)

3.3 Evolution of the Foundation Certificate

The FC programme emerged at the university in the early 2000s from a convergence of a number of factors: evolving and topical national and policy initiatives associated with access

to HE; institutional and faculty contexts; and, crucially, the vision and commitment of some key individuals within the university.

The Director of Access at the time was aware of the low numbers, both institutionally and nationally, of mature students enrolled on undergraduate science programmes. The Director was well-informed about what was going on in adult and community education and couldn't see much provision in that sector which would enable students to progress to science at university. The Director investigated access and foundation programmes in the UK, and in particular Scotland, and, eventually, along with the Dean of Science, developed the concept, model and programme for the original Foundation Certificate. The Dean was committed to the programme from the very start and subsequently presented it, successfully, to the university's Academic Council.

From a Faculty perspective, it was hoped that the FC would be able to boost falling numbers in science. The commitment of the Dean to the potential of the FC was crucial in establishing it as a viable programme within the university. The Maynooth programme was to become one of the very few exclusively science-focused HE Foundation programmes in the country.

In the early years there were some early school leavers but this ceased quite early on as the FC established itself as an exclusively mature student programme.

The programme, which was given the title *Foundation Certificate in Science*, commenced in September 2002 as a pilot with 11 students. Engineering was added to the programme the following year, with a corresponding name change to "Foundation Certificates in Science and Engineering". Students, from 2003, now had two strands from which to choose. In 2005/06 this choice was expanded further when the FC introduced business-orientated subjects in a Foundation strand of the programme entitled *The Foundation Certificate in Economics, Finance and Venture Management*. In 2009/10 this specific programme changed slightly and became known as the "Foundation Certificate in Finance, Economics and Business". However, this was the last year of any provision for business-related subjects in the FC programme. The shifting curricular contents and names of the programme, along with some key moments in its evolution, are illustrated in the timeline overleaf:

Year	Foundation Certificate in ...			Key events
2002	Science			FC starts as a pilot with 11 Science Faculty lecturer appointed as the Coordinator
2003	Science	Engineering		Engineering added to the programme
2004	Science	Engineering		
2005	Science	Engineering	Economics, Finance and Venture Management	Business-related subjects join the programme
2006	Science	Engineering	Economics, Finance and Venture Management	
2007	Science	Engineering	Economics, Finance and Venture Management	
2008	Science	Engineering	Economics, Finance and Venture Management	
2009	Science	Engineering	Finance, Economics and Business	2010: small-scale review of FC Series of presentations to Dept Heads
2010	Science	Engineering		FEB, Biology and Chemistry withdraw from the programme Computer Science introduced to Science FC.
2011	Science	Engineering	Academic Council approves FC as a Level 6 award	
2012	Science	Engineering	Attempts commence to integrate aspects of FC structures into mainstream university processes (e.g. exams).	2011/12: Three key FC-related staff retire: Coordinator; Maths tutor; Director of Access. Study Skills tutor takes over as interim Coordinator 2012: Asst. Lecturer from Experimental Physics appointed as new FC Coordinator Publication of university strategic plan for 2012-2017: asserts the university's commitment to widening participation and strengthening access programmes
2013	Science	Engineering	Explicit articulation of key roles and responsibilities produced	Switch to online-only application process for FC
2014	Science	Engineering		Research commissioned to review the FC programme

Figure 2: FC timeline

3.4 Curricular change

As can be seen from the timeline, the curricular content of the FC programme has changed over the years. What may be less evident is the change which has taken place at the subject-level within the programme. From the second year (2003/04) the following subjects have been consistent features of the programme: maths, physics, engineering, PC and study skills. For many years biology and chemistry were an integral part of the programme. As the table above suggests, various subjects relating to economics, finance and business contributed to the curricular framework for a number of years.

However, 2010 was a year of significant curricular change: biology, chemistry and the whole finance, economics and business strand withdrew from the programme. At the same time Computer Science was introduced. Computer Science continues to be part of the programme and reflects a popular pathway for more recent students.

3.5 Structural shifts and strategic vision

In the early years of the programme there were some ideas and efforts to establish the FC programme in other locations such as Portlaoise and Cavan⁹. However, this was discontinued as the student numbers were very low. Another effort was made to launch a version of the programme in the university's Kilkenny campus around 2009. The Access Office investigated this and had an information evening in Kilkenny for prospective students. However, there didn't appear, at the time, to be enough interest to run the programme.

Despite the limited success of these attempts to develop outreach strands of the FC programme, Maynooth University's deep sense of commitment to access, in general, is clearly articulated in its most recent strategic plan. The widening participation aims of access, which were noted at the beginning of the chapter, are shared, and reconfirmed, in the university's strategic plan for 2012-2017:

We will sustain our success in widening participation in higher education, strengthening access programmes ... and mainstreaming and integrating our supports for student success (NUIM, 2011: 18)

⁹ This information came from a research conversation with a retired member of staff who was centrally involved with the programme at the time.

This unambiguous commitment to widening participation and, in particular, the promise to strengthen access programmes suggests that the university will continue to support and develop the FC programme. This commitment was further enhanced by the press release accompanying the publication of this strategic plan which articulated the obligation of all HEIs to develop broader social visions and goals beyond more immediate economic-focused objectives (Maynooth University, 2013).

Part of that process of development, it is suggested in the plan, will enhance intra-institutional collaboration and communication (NUIM, 2011: 26, 34). Indeed, in recent years a number of efforts have already been made to integrate the FCs into the processes and structures of mainstream academic programmes. Around the time of the retirement of some key individuals associated with the FC (2012), it was decided that a range of systems needed to be established to make the FCs a sustainable programme which could run independently of specific individuals. Part of this mainstreaming or institutional normalisation involved a submission to, and subsequent approval by, the university's Academic Council to designate the FC at Level 6 on the National Framework of Qualifications (NFQ). In 2012, standardisation and integration into the university examination system was also advanced.

3.6 Roles and Responsibilities

There are three key entities involved in the administration, coordination and management of the Maynooth University FC programme: the FC Coordinator; the Access Office; and the Science Faculty/Dean of Science. The FC Coordinator role is subsumed into a lectureship position which was created in recent years, in part, to formalise the duties of this key position within the programme. The FC Coordinator has been, apart from a brief interim period, filled from lecturing staff from the Department of Experimental Physics. Coordination of the FC is just one part of the Coordinator's wider lectureship duties and responsibilities. The roles and responsibilities, drawn from a 2013 document, of these three stakeholders can be found in Appendix 11.

3.7 Programme Costs

A limitation encountered in completing the terms of reference for the research relates to allocation of programme costs to enable a cost-benefit analysis to be sufficiently undertaken. Limited detailed financial accounting specific to the FCs outside of the wider Access budgetary allocation are available in the depth required to undertake a cost-benefit analysis. Because of this, all estimations of costs are given amidst considerable caution. There is also complexity in allotting monetary outlay to the social and personal returns associated with efforts to address educational inequality. Although there is some cost associated with the programme, it is this educational and social value which seems more important to a university that asserts its commitment to broadening and mainstreaming access routes and, more generally, reasserts the need for HE policy to adopt a longer view which focuses on the needs of individuals and society rather than short-term economic goals (Maynooth University, 2013).

As previously identified, unit costs of access courses is thought to be higher when compared to other third level based courses though no specific research has been undertaken to verify this (in Murphy, 2009: 127). Within the consultation paper – *Towards a new policy approach to higher education access courses, why is there a need for a new policy approach to access courses*¹⁰ an average annual costs for undergraduate students are cited as €3,200 with FC provision estimated to be in the region of €9,000-€11,000 (in Murphy, 2009: 127). In the Irish Universities Association (2010: 6) submission to the Oireachtas Joint Committee on Student services charges an estimate of €1,600 per capita is proposed for student registration, examination fees, and services.

Recent Access Office figures (2011/12 and 2012/13) identify the cost of the programme at circa €28,500 per annum, the majority related to tutor payment. Students pay a fee for participation of €900 potentially generating an income of €19,800. However, 66% of participants are exempt from fees as they are in receipt of Back to Education Allowance. This reduces fee income to €13,068 meaning an average subsidy of €15,432 per annum funded by the Access Office.

Based on an average intake of n22 students, cost per capita is €1,295. Totalling this with the Irish Universities Association amount for services, a total student cost of €2,895 to Maynooth University is estimated. These costs underestimate full financial cost implications to

¹⁰ See page 27 for more details on this report

Maynooth University given its exclusion of core staff costs within the Access Office, coordination undertaken with the Faculty of Science, and design and dissemination of advertising funded through the universities admissions office¹¹.

Whilst not all students completed the programme, this does not negate the potential for personal benefits for this cohort, something revealed within qualitative conversations with participants who were unable to finish the FC programme. This qualitative value reaffirms the point made by Gill *et al.* (2013: 43) who challenge the notion of employing purely quantitative measurements of success and value in relation to access programmes and, instead, call for a broader understanding of ‘successful participation’ which may require a much larger debate on the role of Higher Education in contemporary Irish society.

¹¹ As per financial information available.

Chapter Four – Research design and methods

The research objectives and related questions suggested an adoption of both qualitative and quantitative methods. As Creswell and Planto-Clarke (2011: 8) explain ‘qualitative research and quantitative research provide different pictures, or perspectives, and each has its limitations’.

The research population under consideration is n271 post-certificate students registered across three identifiable FCs,

- One hundred and sixty-seven students who registered for the Certificate in Science (delivered 2002/03-2013/14).
- Fifty-six students who registered for the Certificate in Engineering (delivered 2003-2013).
- Forty-eight students who registered for the Certificate in Economics, Finance and Venture Management¹² (delivered 2005-2010).

4.1 Quantitative research into student profile, retention and progress

Anonymised student records for the total population group are analysed providing information on background, previous educational experience, performance on FCs and retention and progression within Maynooth University. This was enabled through information provided from three distinct sources.

1. Information retained within Maynooth University central student record files detailing personal characteristics such as date of birth, age, gender, and stated nationality. Additionally information can be collated on performance, progression and retention rates for those attending FCs, and Maynooth University undergraduate and postgraduate programmes.
2. Information retained within the Access Office at Maynooth University. This consisted of data extracted from application forms completed prior to course commencement and included details on previous educational attainment including previous maths and schools attended. These are available from 2006 onwards only.

¹² The name of this certificate changed to certificate in Finance, Economics and Business in its final year.

3. Additional information from the Access Office detailing whether participants were in receipt of the State granted Back to Education Allowance (BTEA). These are available from 2009 onwards only.

Datasets were supplied within password-protected excel worksheets with information transferred into IBM SPSS version 20 spreadsheets which were also password-protected.

4.2 Qualitative approaches to student and staff engagement

Qualitative findings, facilitated through one-to-one and focus group engagement, adds depth to quantitative findings providing space for volunteering past-certificate students to share reasons for applying; experiences whilst completing the programme; thoughts on progression and retention; and, importantly, suggestions they have in how to improve FC provision in the future. These findings are further contextualised through engagement with a number of key staff within Maynooth University.

In order to facilitate participation, the researchers adopted interviewing within a number of different contexts. These included focus-groups, and one-to-one interviewing. Telephone interviewing (tele-interviewing) was used when requested by participants or when face-to-face interviewing was not possible. Similarly, and in order to reach a wider research population than originally intended, rich qualitative responses were elicited, in some circumstances, by email (e-interviewing). Open-ended questions, themselves developed from initial reflections on interviews and focus group encounters, were posed to a number of staff-participants. Both tele-interviewing and e-interviewing are recognised as valid and potentially valuable sources of qualitative data (James, 2007; Novick, 2008).

Identifying the research population for qualitative engagement

The research team spent some time identifying student and staff stakeholders. Careful consideration of the cohorts was necessary in developing recruitment strategies and engagement methods.

4.2.1 Identifying student population cohorts

The FC student population was divided into seven distinct cohorts (figure 3).

Cohort 1	Cohort 2	Cohort 3	Cohort 4	Cohort 5	Cohort 6	Cohort 7
• Current Cert students	• Current Maynooth University (MU) post-Cert students	• Ex-Cert students who progressed and completed MU degree	• Ex-Cert students who progressed to degree at other HEI	• Ex-Cert students who completed Cert and did not progress to further study anywhere	• Ex-Cert students who did not complete Cert programme	• Ex-Cert students who progressed and did not complete MU degree

Figure 3: Student cohorts

4.2.2 Student-participants: recruitment and response

In line with ethical commitments to ensure anonymity, the research population were contacted by Student Records by postal or electronic mail informing them about the research and ways in which they could get involved (appendices 5 and 6). This correspondence invited them to contact the research team directly which then enabled direct communication to commence¹³. Permission was given by the university to contact students and ex-students under the understanding that they would only be contacted once in this recruitment phase. The processes and stages involved in the engagement of the student cohort are illustrated further in Figure 4.

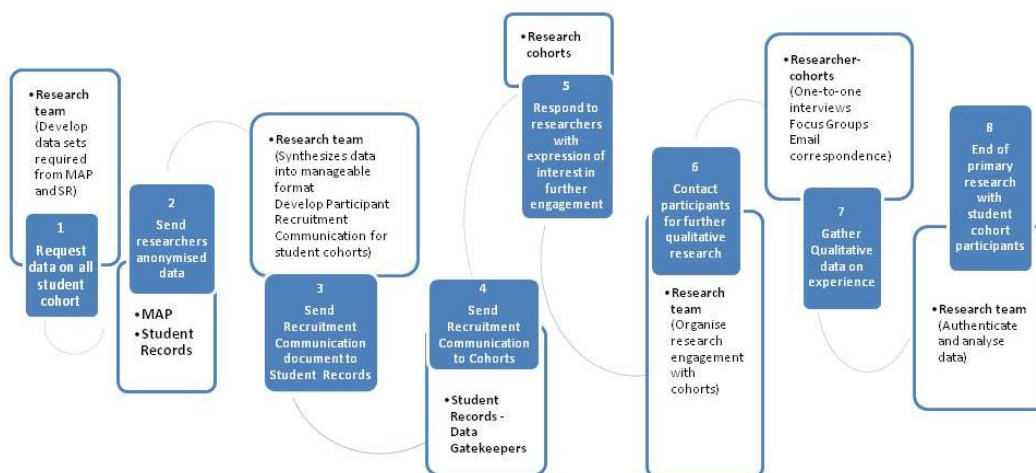


Figure 4: Student experience research process

¹³ The total number contactable from the student cohort was 267: one participant is deceased and three were without addresses outside of college accommodation.

In total there were 32 responses. It was hoped, initially, that most student-participants could be engaged through focus groups. However, many expressed a preference for a one-to-one interview. Methods employed were adopted to ensure maximum participation possible resulting in 10 one-to-one interviews. A further 10 student-participants engaged in the research across two focus group sessions. Additionally, an online forum was introduced which enabled a further four past-students to engage¹⁴. Some who responded positively did not engage because of logistical problems. In total, 24 students/past-students participated representing 9% of the FC student population. As has already been mentioned, the research aim, for this part of the project, was to investigate student experience. An inquiry into experience requires deep and naturalistic methodological approaches which produce relatively open and narrative engagement with participants (Clandinin and Connelly, 2000; Riessman, 2008). Such engagement will, by its methodological nature, tend to produce small-scale research populations but will also furnish, as is the case here, extensive and in-depth qualitative data. The qualitative approaches, when positioned alongside the quantitative inquiry, would help to produce a sense of multi-dimensionality in the overall findings for the project.

4.2.3 Staff-participants: identification and recruitment

Potential staff-participants were identified in the initial stages by the Access Office as “key staff” that the research team should consult with. As the research developed, this initial staff cohort grew to include tutors. Similarly, other institutional stakeholders, such as departmental heads related to FC subjects and a selection of strategic staff, were identified as potential research participants. Twenty-two staff were invited to participate with 12 opting-in through a variety of methods (Table 1). This translates to 55% of this research cohort invited to participate. The staff cohorts (including some retired staff) can be identified by their institutional role as follows:

¹⁴ This was done utilising a Bristol On-line survey programme.

FC Tutors	Two participated in one-to-one interviews Three participated via email
Departmental Heads (associated with FC subjects)	One participated via email. One participated via tele-interviewing
Core FC staff	Two participated in one-to-one interviews. One participated via tele-interviewing One contributed via email.
Strategic staff (as suggested by the Access office)	One participated via tele-interviewing One participated via email.

Table 1: Staff cohort and modes of participation

Foundation Certificate tutors were not identified as a research cohort in the original tender or research proposal. However, the research team felt that tutors should be given the opportunity to have an input into the research. Although their inclusion meant added resource demands on the research team, a range of qualitative research approaches were adopted to ensure maximum engagement within the limited timeframe.

It was decided at an interim meeting that the Access Office would identify and make first contact with the strategic staff cohort to make them aware of the research. Researchers subsequently contacted this strategic staff cohort to invite them to engage with the research (Appendix 10).

A total of 36 participants across staff and student cohorts engaged in the qualitative element of the research.

4.2.4 Data gathering and analysis

Qualitative data was gathered via one-to-one research conversations, focus groups, e-interviewing and through emerging semi-structured questions posed through an online survey (Bristol Survey).

The semi-structured questions posed throughout the various modes of qualitative research were informed by the broader research objectives and research questions (page 22). In particular, the qualitative research explored FC students': pathways into the FC; social and learning experiences on the programme; and post-FC experiences and destinations. When engaging with FC staff stakeholders the research inquired into experience and knowledge

relating to: the evolution of the FC programme; the value, challenges and opportunities facing the FC.

The researchers, working from an adult education perspective which acknowledges participant knowledge and expertise, also explored student and staff recommendations for the future development of the FC programme (Hollway and Jefferson, 2000; Kincheloe, *et al.*, 2011). These were drawn upon in final conclusions and recommendations (chapter eight).

Student data and staff qualitative data were, separately, collated and analysed thematically through a series of recursive and reflexive steps which were attentive to both the emerging themes within the data, and the externally-defined research objectives (Mason, 2002; Silverman, 2011).

The themes which emerged from the analysis of student data were:

- Ways in and progression
- The value of the FC
- Learning experiences
- The Maynooth experience
- Challenges and supports
- Recommendations for FC development

The themes emerging from the staff data were:

- The value of the FC
- The Maynooth experience
- Teaching and curriculum issues
- Student challenges and support
- Operational issues for FC
- Staff recommendations for FC

4.2.5 Limitations of qualitative data

A relatively low number of the FC student population engaged with the research (9%). The researchers were bound by an agreement with the university to make one attempt at recruitment, so further attempts at recruitment were not possible. Furthermore, as the research team were tasked to focus on student experience, methods were adopted which are

most appropriate for an inquiry into experience: namely interviews and focus groups (Creswell, 2009; Denzin, 2011; Silverman, 2011). Questionnaire-based surveys, which may have produced more responses from the FC student population, were considered, but rejected, as such methods do not always illicit the depth in qualitative data required into an inquiry into experience. Furthermore, the semi-structured approach of interviews and focus-groups facilitated a higher degree of participant control in determining research themes and issues.

4.3 Ethics

The research project was grounded in ethical practices associated with adult education and its associated attendance to the care and respect of all participants and, in addition, an awareness of the dimensions of power at play in research activities (Hollway and Jefferson, 2000; Kincheloe *et al.*, 2011; Noddings, 2012). More specifically, the research was conducted in the context of the Data Protection Act (1988, 2003), and in line with Maynooth University's Social Science Research Ethical Policies and the ethical research guidelines articulated by the British Educational Research Association (BERA, 2011). Ethical approval for the project was sought and granted by Maynooth University's Ethics Committee in May 2014.

Chapter Five – Student profile, retention and progression

Introduction

In order to enhance decision making on future development and delivery of Foundation Certificates (FCs) in Science and in Engineering, a review of its performance to date is beneficial. This chapter offers quantitative measurements reporting firstly on participant characteristics before turning attention to retention and performance across Foundation Certificates (FCs) in Science, Engineering, and the shorter-lived certificate in Finance, Economics and Venture Management. It also explores performance and retention at undergraduate and postgraduate level within Maynooth University.

As detailed within chapter four, data on n271 registered students was generated from anonymised student records. Ethical approval was sought for this endeavour and was permitted on the grounds that all data provided was anonymised with all personal identifiers removed. Datasets were supplied within password protected excel worksheets with information transferred into IBM SPSS version 20 spreadsheets which were also password protected.

Limitations to quantitative findings

Limitations emerged due to some gaps in information gathered. Four students have no results recorded and no confirmation of withdrawal. Additionally, application forms held within the Access Office have only been gathered since 2006 and are not always fully completed by students. A capturing of those in receipt of Back to Education Allowance (BTEA) is only available since 2009. These shortfalls have been highlighted when relevant in reporting findings.

A further limitation relates to the way in which information on progression relates to Maynooth University only. Qualitative reporting identified a number of FC past-students progressing to undergraduate studies at other Higher Education Institutions (HEIs) both private and State providers. Findings therefore fail to demonstrate the true rate of progression were those accessing alternative HEIs to be included.

Structure of the chapter

Reporting of statistics will appear within two distinct sections. Section one sets out to capture the characteristics of those completing FCs. Its focus is on gender, age, nationality and place of residence for all registered students. It also generates information on previous educational settings and qualifications including prior mathematics as well as quantifying those in receipt of BTEA.

This is followed by a second section which draws out retention, performance and progression rates across the FCs. It also measures retention and performance at undergraduate level as well as details on the number of students to progress to postgraduate studies.

Before presenting each section in more detail, a summary of key findings has been provided.

Overview of key findings.

Student characteristics

- Seventy two percent of those registering for FCs are male whilst 28% are female.
- Six percent declare a disability.
- Thirty-two nationalities are identifiable across registering students.
- The majority (38%) reside in Co. Kildare with 32% residing in Co. Dublin and 10% residing in Co. Meath.
- Sixteen percent of registering students attended a DEIS designated school whilst 20% have been schooled overseas.
- Whilst the FCs are designed to target mature student entry, many potentially meet dual criteria for Access entry through DEIS school attendance, declared disability, ethnic minority, and/or receipt of BTEA.
- Fifty nine percent hold a Leaving Certificate whilst 26% hold an Intermediate/Junior certificate or list no qualification.
- The majority (51%) have previously engaged in non-compulsory education mostly through Further Education (FE) mechanisms.
- Where measurable, 66% are in receipt of Back to Education Allowance.

Recruitment, retention and performance within FCs

- Sixty-two percent register for the Certificate in Science (2002-2013), 21% undertake the Certificate in Engineering (2003-2013) with 17% registering for the Certificate in Finance, Business and Venture Management (2005-2010).
- Registration for the FCs has declined in 2013. The certificate in Engineering has been in particular decline since 2010 with just one registering since 2012/13.
- Thirty seven percent of those registered (2002-2013) do not successfully complete the FC.
- Thirteen percent withdraw following successful completion of the FC without progressing to undergraduate studies at Maynooth University.

Progression and retention post-FCs

- Fifty-four percent progress to further studies within Maynooth University.
- Seventy-five percent of all to progress do so within the Faculty of Science and Engineering, 23% progress within the Faculty of Social Science and 2% progress within the Faculty of Arts, Celtic Studies and Philosophy.
- Non-retention at undergraduate level is 39%. One quarter of all those who progress fail to complete year-one.
- Twenty-nine percent of all to progress have completed undergraduate studies whilst 32% are current undergraduate students at Maynooth University.

Postgraduate progression

- Twelve students have progressed from the FCs to postgraduate (PG) studies.
- Three have graduated whilst a further seven are current postgraduate students.
- Three students undertaking PG studies have not completed a Leaving Certificate.

Section one: Attributes of students for Foundation Certificates (FCs).

This section sets out to uncover what is known about the characteristics of this student group.

Findings are reported in three stages;

- What we know about the full student complement (n271)
- Further information on those registered from 2006 and who completed application forms (n171)¹⁵
- Information available from 2009 (n125) relating specifically to uptake on the Back to Education Allowance (BTEA)

5.1 General Traits of FC attendees

One hundred and ninety-four (72%) of those who registered are male with the remaining n77 (28%) female. This gender imbalance is not unusual with men more commonly involved within maths/computing, engineering, manufacturing and construction and women more often studying within humanities, arts and social sciences (HEA, 2010: 17).

Six percent (n17) declare a disability. This is the same percentage as that recorded elsewhere within the general population of HEI students (HEA, 2010b).

In accordance with programme regulations, all students are aged 22 years or over. This stipulation ensures all who progress from FCs are eligible for entry to undergraduate studies as mature students.

The most likely age range during completion of the FCs is 23 years-32 years capturing 60% (n161) of all students. Four percent (n11) are 22 years at time of registration therefore ineligible for direct entry to undergraduate studies at that time.

¹⁵ In total n197 registered for the programme from 2006 onwards however n26 have not completed application forms.

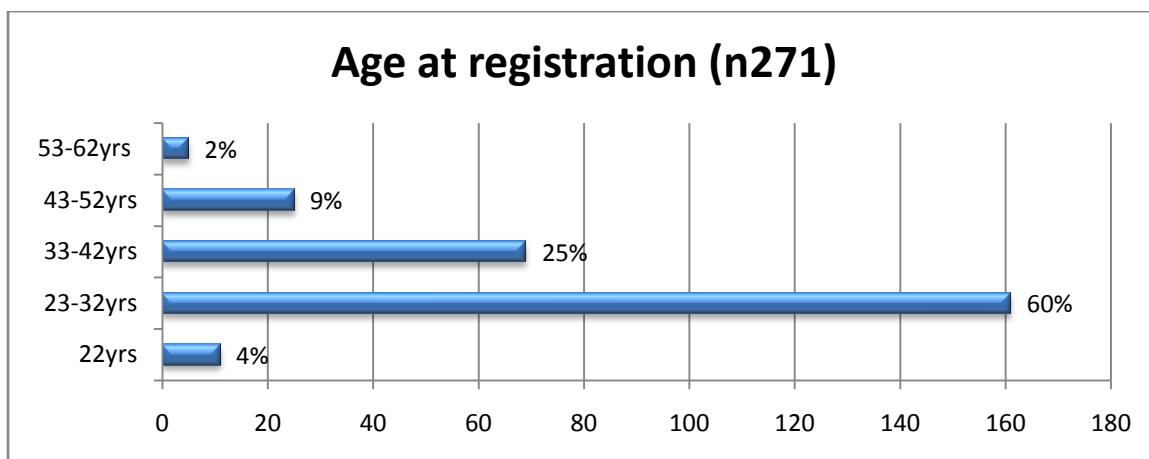


Figure 5: Age at registration

5.2 Participant Nationality and place of residence.

Nationalities vary considerably with 32 countries named at time of registration. The largest cohort is Irish representing 75% of all applications with 6% citing nationality as another European Union (EU) country. African students constitute the largest number outside of the EU at 9%. Six percent cite nationalities from within Asia whilst 1% of those who register are Brazilian. One percent also cite their nationality as from the United States of America.

A full list of nationality breakdown is available as Appendix 3.

For some citing Irish nationality, information on schools attended indicates schooling overseas. This is likely to point to naturalisation between school experience and before registering for the FCs.

5.2.1 Place of residence at registration

Ninety-six percent list residency within Leinster. Kildare is the most frequently listed county with 38% (n104) residing here. Thirty two percent (n86) live in Dublin whilst 10% (n27) live in Meath. Those outside of Leinster list addresses in Kerry, Donegal, Cork, Tipperary, Mayo and overseas.

It is not known if those listing Kildare as their place of residence have deliberately taken up residency in close proximity to the university.

Breakdown of Addresses within Kildare	Frequency	Percentage
Maynooth	30	11
Celbridge	18	6.5
Leixlip	11	4
Naas	13	4.5
Newbridge	8	3
Kilcock	7	2.5
Clane	5	2
Kildare Town	4	1.5
Prosperous	2	1
Athy	1	0.5
Donadea	1	0.5
Kilcullen	1	0.5
Sallins	1	0.5
Robertstown	1	0.5
Athy	1	0.5
Total	104	38

Table 2: Breakdown of Kildare residencies.

Of those residing in Dublin, a further breakdown of postal code address can be offered as follows,

Breakdown of postal codes within Dublin	Frequency	Percentage
Dublin 1	4	1.5
Dublin 2	1	0.5
Dublin 3	2	1
Dublin 6	6	2
Dublin 7	5	2
Dublin 8	4	1.5
Dublin 9	4	1.5
Dublin 11	4	1.5
Dublin 12	3	1
Dublin 13	1	0.5
Dublin 14	2	1
Dublin 15	15	5.5
Dublin 18	1	0.5
Dublin 20	1	0.5
Dublin 22	3	1
Dublin 24	3	1
North County Dublin	10	3.5
South County Dublin	17	6
Total	86	32

Table 3: Breakdown of Dublin postal codes

5.3 Previous educational experiences and achievements.

As records that incorporate previous educational experience are available from 2006 only and only by those who completed an application form with the Access office, these are generated from a reduced population group of n171. This figure calculates information on the type of educational setting people list when asked to provide information on the schools attended. Numbers of those attending Delivering Equality of Opportunity in Schools programme (commonly referred to as DEIS schools), has been generated by comparing schools named with the listings of designated DEIS schools published by the Department of Education and Science.

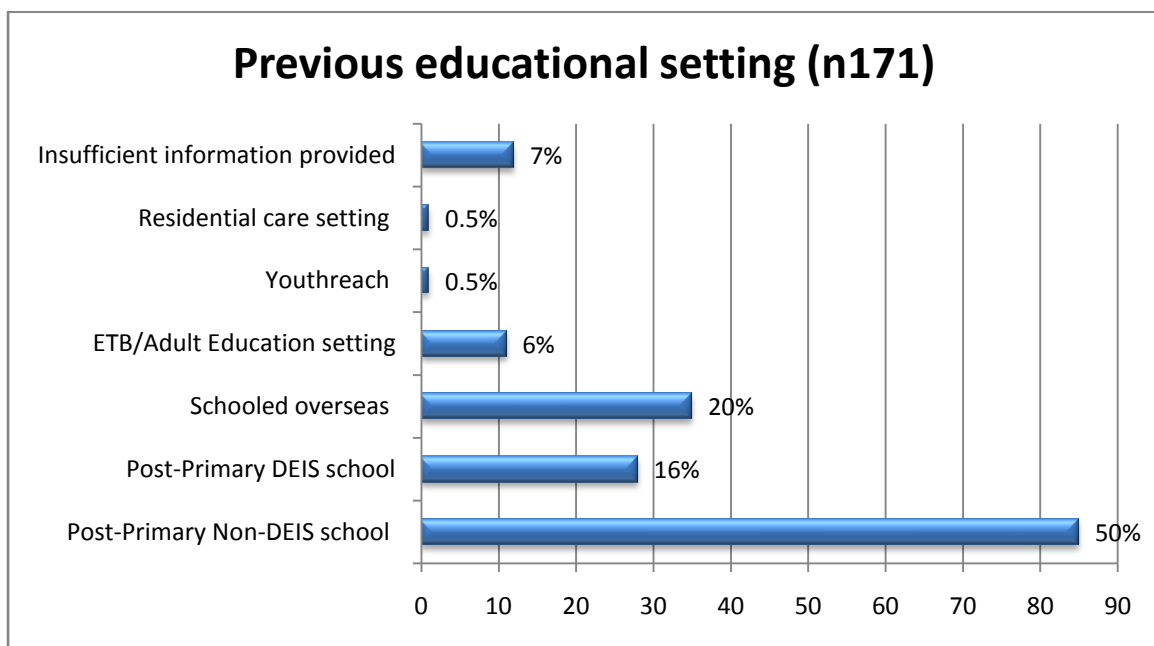


Figure 6: Previous school setting

Within this research population, 16% attended a DEIS designated post-primary school. The bulk (50%) attended non-DEIS schools.

Research elsewhere indicates DEIS schools carry a below average progression rate of 24% to HEIs compared with average progression from non-DEIS schools measured at 49% (Department of Education and Skills, 2013: 12).

Caution is advised in relying on DEIS as sole indicator of socio-economic disadvantage. Within this study alone, n41 attendees in receipt of Back to Education Allowance (BTEA) did not attend DEIS schools¹⁶. It is also not uncommon for those living within urban settings close to DEIS schools to attend non-DEIS schools in neighbouring communities.

¹⁶ Figures on BTEA are only available from 2009 and further statistics will be presented within section x.

Additionally the socio-economic circumstances of those 20% who attended schools overseas is not known.

5.3.1 Previous educational qualifications

Additional details can be gathered on the previous educational performance of FC attendees. These have been categorised to account for Leaving Certificate; Intermediate/Junior Certificate; Group Certificate; overseas equivalent to Leaving Certificate (as determined by participants when completing their application form); UK A level and O level qualifications and 'other'. Twelve (7%) of those who complete application forms list no previous qualifications.

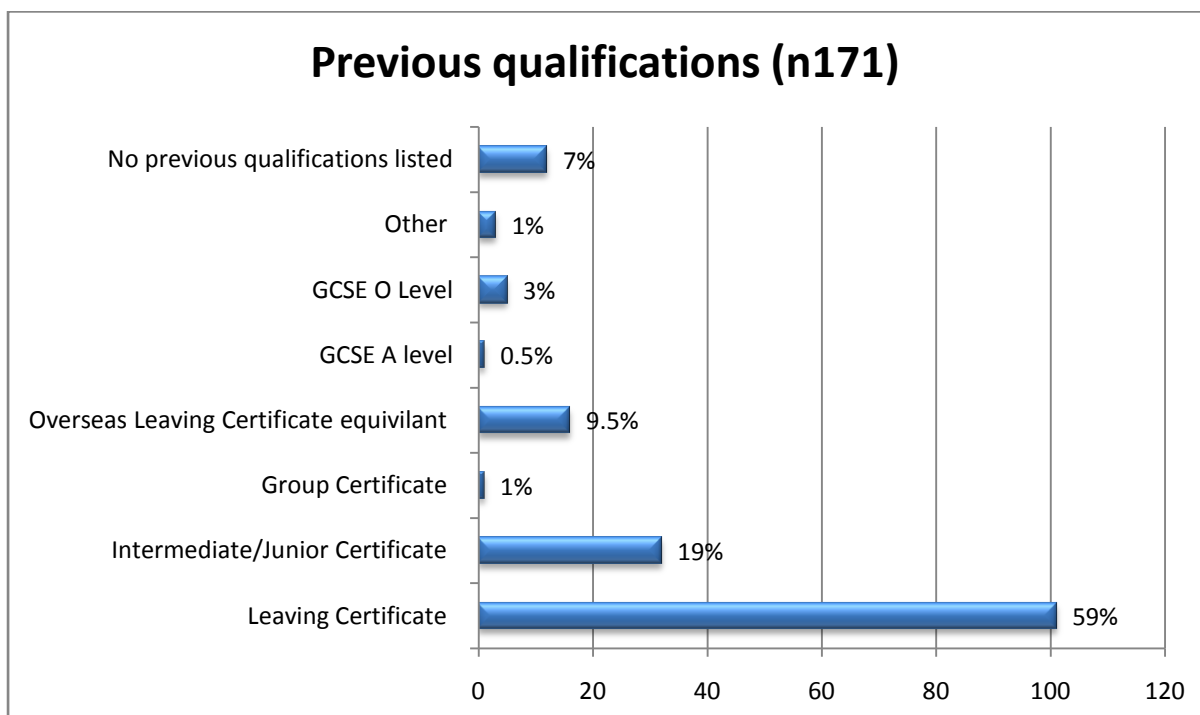


Figure 7: Previous known qualifications

As demonstrated, the bulk of FC attendees complete their leaving certificate (59%) whilst a further 9.5% list an equivalent overseas qualification. Twenty-seven percent (n45) list Intermediate/Junior Certificate or list no qualification. A further 3% list GSCE O level and 0.5% (n1) list GCSE A level, with 1% listing other tertiary qualifications.

Also sought within application forms was information on previous maths qualifications. This reveals the following:

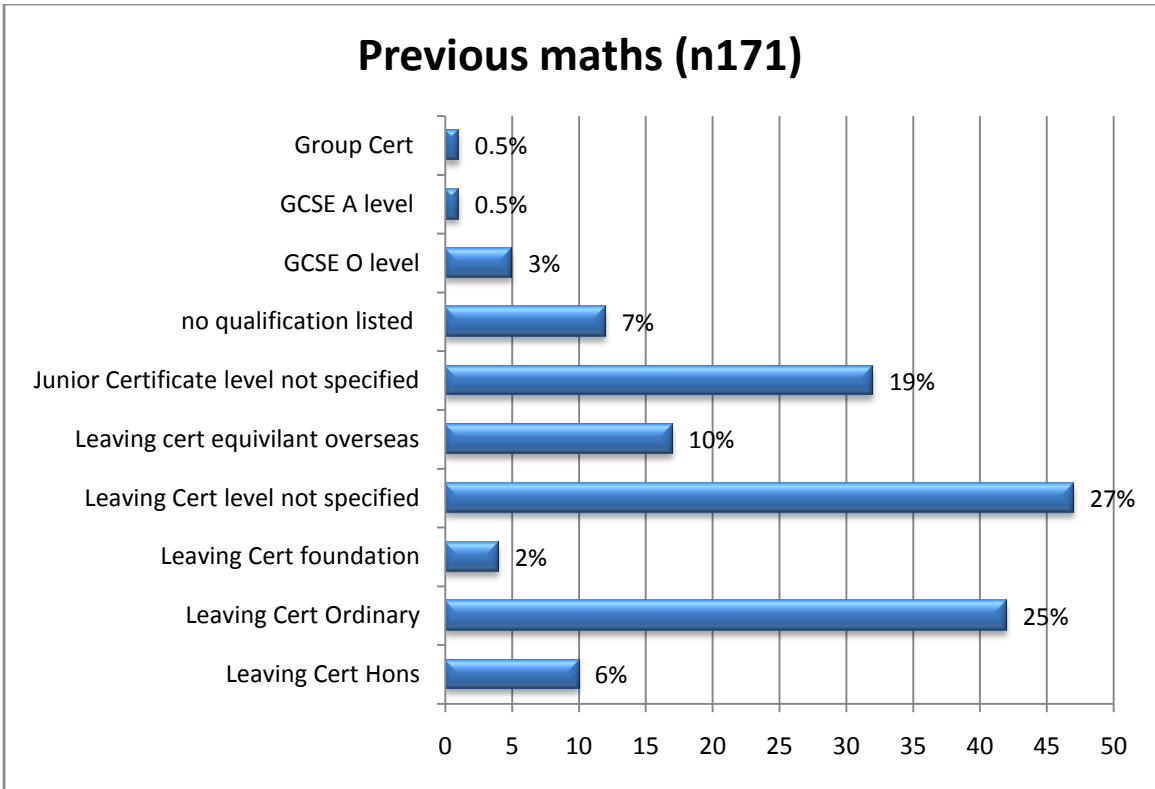


Figure 8: Previous maths

Six percent (n10) had previously completed Honours Maths with one holding an A level in Maths. Eight with Honours Maths are aged between 23-32 years with the remaining n2 over 32 years.

Caution is advised when interpreting these figures as n4 of those who stated school attendance overseas also listed a Leaving Certificate qualification without listing attendance within an Irish education provider.

5.3.2 Prior tertiary education experiences.

Where measurable, there is a high uptake of other post-compulsory education with over half (51%), citing previous experience within tertiary education.

Of this number, 20% detail qualifications from the Further Education and Training Awards Committee (FETAC) though it is not known if certification amounts to a full major award or component awards.

Previous post-compulsory Education	Frequency	Percentage
FETAC certification	34	20
HEI certificate	14	8
FAS apprenticeship	10	6
City and Guilds	8	5
ECDL	5	3
existing degree or equivalent	2	1
previous incomplete degree studies	6	3
Previous Access to Engineering programme	1	1
Other	8	5
None	83	49
Total	171	100

Table 4: Previous tertiary qualifications

For those listed within the ‘other’ category, these were a diploma in Beauty Therapy with no specific awarding body named, Chef training, ‘horse management’, computer skills and, for one respondent, ‘various’ is listed.

5.4 Back to Education Allowance

Sixty-six percent (n82) of the n125 participants to register between 2009 and 2013 are in receipt of Back to Education Allowance (BTEA). This allowance is available to anyone who is 21 years of age and over and in receipt of one of a number of designated social welfare payments for a set period prior to the commencement of the course¹⁷. Thirty-five percent of those measured as in receipt of BTEA at the time of undertaking FC programmes are current students within Maynooth University.

¹⁷ This and further information is available from (<http://www.welfare.ie/en/Pages/Back-to-Education-Allowance-Scheme.aspx>, accessed September, 2014).

Section two: Performance, Retention and Progression

This second section contains details specific to the FCs namely participation rates, performance, progression and retention at certificate, undergraduate and postgraduate level. In measuring performance and progression the research population is n256 as information is not available for 15 students registered for 2013/14.

5.5 Overview of participation rates

The first certificate programme delivered in 2002 had n11 participants. This figure was to expand over the years with the highest intake in 2009-10 where n37 students registered across three certificates. Average intake is n22 per annum. A percentage breakdown across FCs is,

1. Certificate in Science (CSC) for which 167 students have been registered (62%).
2. Certificate in Engineering (CEN) for which 56 students have been registered (21%)
3. Certificate in Finance, Economics, and Venture Management (CFV) for which n48 students have been registered (17%)¹⁸.

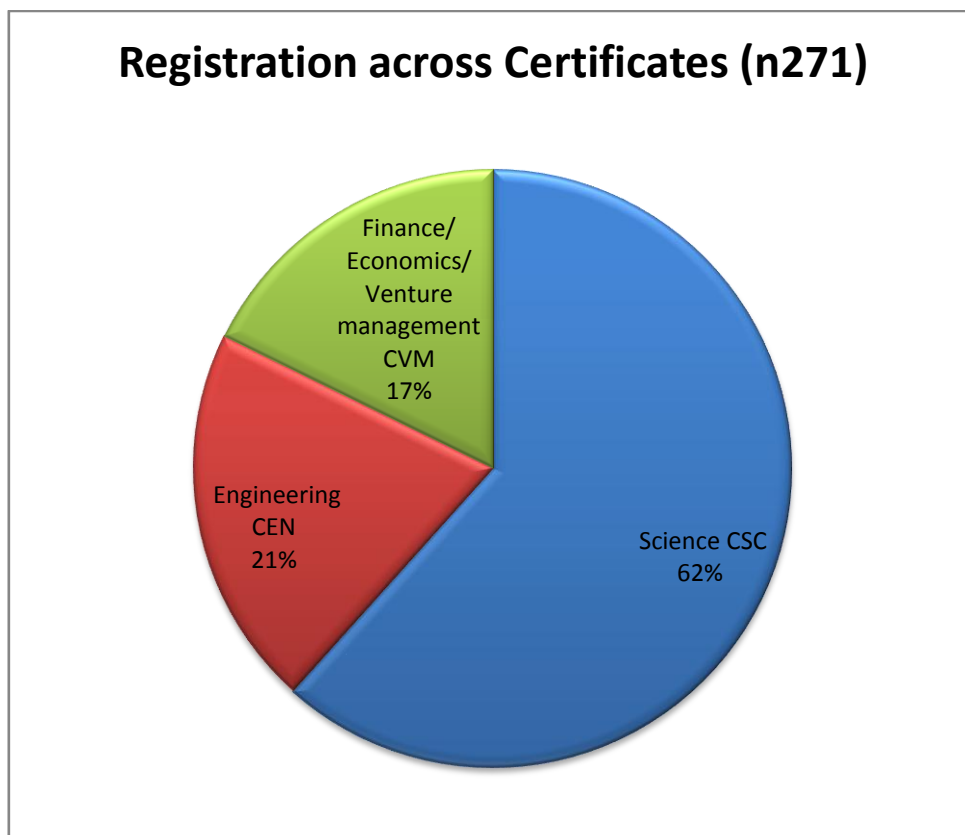


Figure 9: Registration breakdown across certificates

¹⁸ The reader is reminded this programme ran from 2005/6 until 2010/11 only.

Figure 10 (below) offers visual representation of admission rates across each academic year. Participation on the Certificate in Engineering (CEN) has fallen since its highest admission rates of n9 in both 2005 and 2009. These have fallen since 2009 with no registrations in 2012/13 and one registering in 2013/14. Registration for the Certificate in Science (CSC) has also fallen in 2013/14 with n14 signing up to complete the programme. Additionally, the Certificate in Finance, Economics and venture management experienced a dip in registration from n18 in 2009 to n9 in 2010.

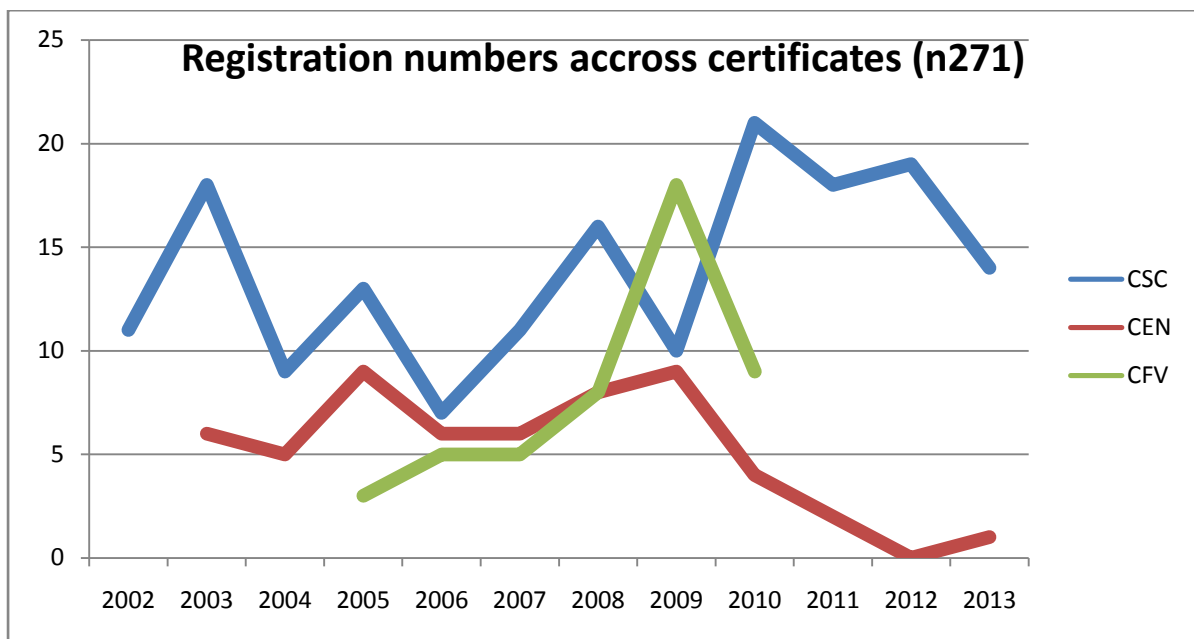


Figure 10: Breakdown of numbers across FCs according to year of registration.

5.6 Completion rates for FCs

Completion rates are determinable both generally and across individual certificates. These are measures across variances of successful completion, non-completion (incomplete, fail, absent and withdrawn), change of course, and, for a small number, where no results have been recorded.

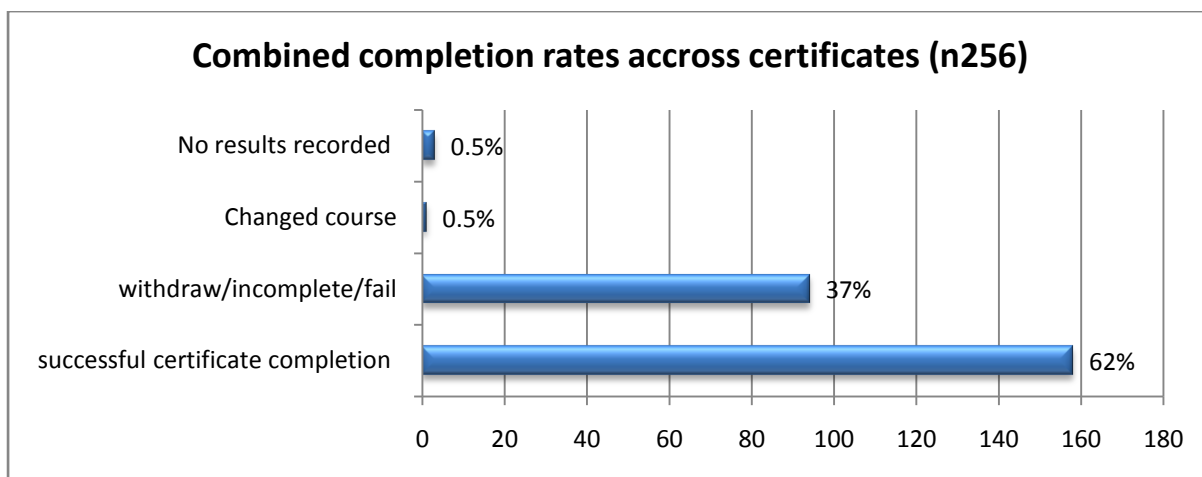


Figure 11: Combined completion rates

Grading patterns are as follows,

Grade	Frequency	Percentage
1 st class Honours	107	42%
2 nd Class Honours	37	15%
Pass grade	14	6%
Incomplete/fail	94	37%

Table 5: FC grading patterns

Over half of the n94 listed as unsuccessful are recorded as fail (n52), with incomplete listed for (n17). Three people are listed as absent. Whilst many withdrawals are listed within student records without specific reasons, a small number state either personal, medical, or financial reasons.

When these figures are looked at in light of previous educational qualifications for those registered beyond 2006, the following emerges,

- Twenty-five percent of those who register with Junior Certificate or who do not list a qualification do not complete the programme. Conversely, 45% of this same cohort graduated with 1st class honours. For the n5 participants with GCSE O level qualification, n3 did not complete the programme.
- The most likely to withdraw are those citing overseas qualification comparable to leaving certificate with 42% of this identifiable cohort not completing the foundation certificate programmes. Twenty-six percent of this group finish with 1st class honours.
- Non-completion is evenly spread across age profiles and gender of those who register.

5.7 Performance across each FC programme.

The following reports performance across each of the FCs.

5.7.1 Certificate in Science

One hundred and sixty seven people registered for the Certificate in Science between 2002 and 2013. A breakdown of their performance is as follows,

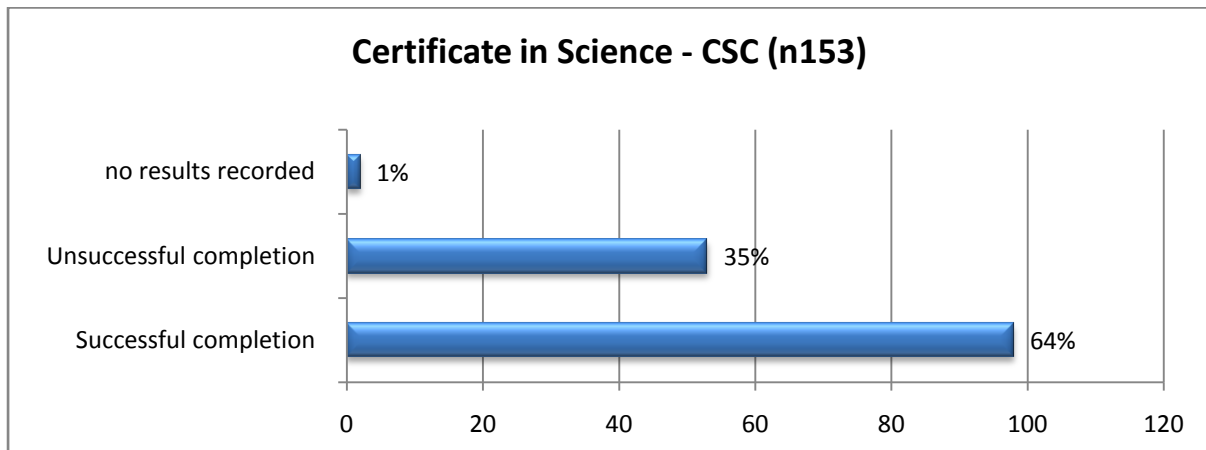


Figure 12: Breakdown of performance within Certificate in Science

Three percent transferred to the CSC from original intentions to complete the Certificate in Engineering.

One percent originally registered for a science degree before reverting to FC registration.

One percent completed a previous certificate programme within Maynooth University.

The most likely result is 1st class honours awarded to 68% of those to graduate with a further 20% awarded 2nd class honours.

There are no results recorded for two students.

5.7.2 Certificate in Engineering (CEN)

Fifty-five people registered for the Certificate in Engineering between 2003 and 2012. A breakdown of their performance is as follows:

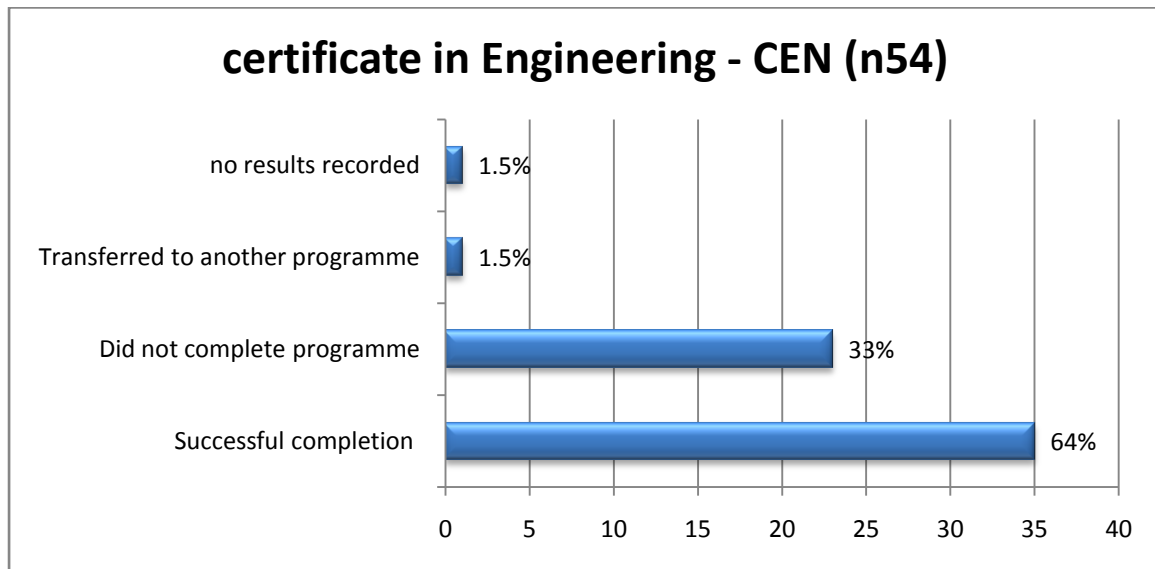


Figure 13: Performance on Certificate in Engineering

For those who complete, 64% achieve 1st class honours with 24% awarded 2nd class honours.

Eighteen percent (n10) were originally registered for the Certificate in Science, whilst 5% (n3) were previously registered for undergraduate studies across Arts, Product Design and Engineering.

One student has no results recorded.

5.7.3 Certificate in Finance, Business and Venture Management – CFV

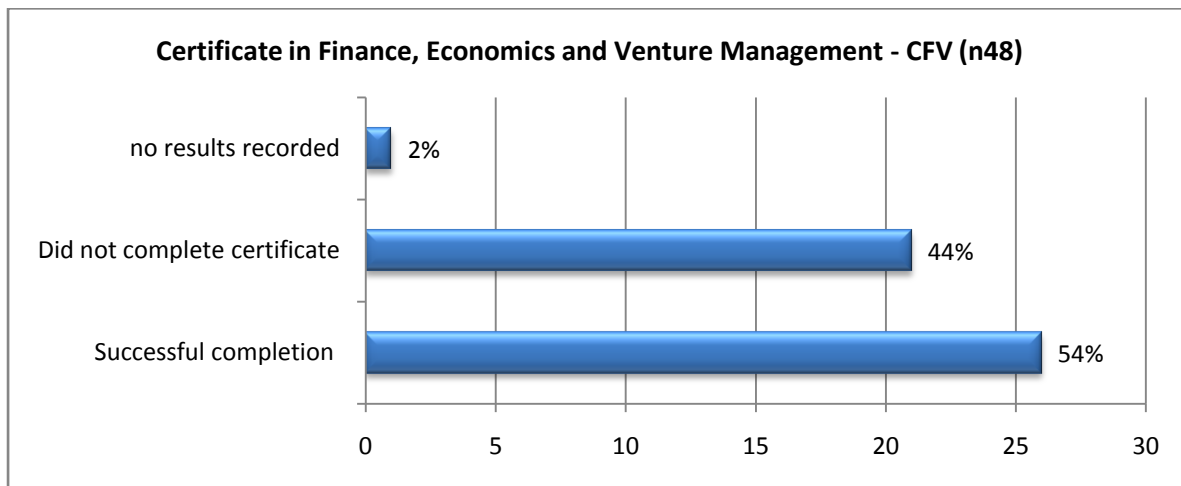


Figure 14: Performance rates on Cert. in Finance, Economics & Venture Management

The Certificate in Finance, Economics and Venture management carries the highest non-completion rate at 44% with a further 2% (n1) without results recorded.

For those who do complete, 63% are awarded 1st class honours with 30% graduating with 2nd class honours.

Again, no results are recorded for one student.

5.8 Progression, retention and performance

As identified within chapter three, the stated aims of the FCs are,

- To reintroduce adults to study and learning and to give them the background they will need to embark on a course for a degree in science or engineering.
- To provide an access route for students who wish to take science or engineering when their secondary education did not offer the necessary subjects.

Considering a research population of n256, known progression to further studies can be drawn out for 54% (n139)¹⁹. Progression also includes n2 (<1% of the total cohort) who moved directly to postgraduate studies. Men and women are equally inclined to progress.

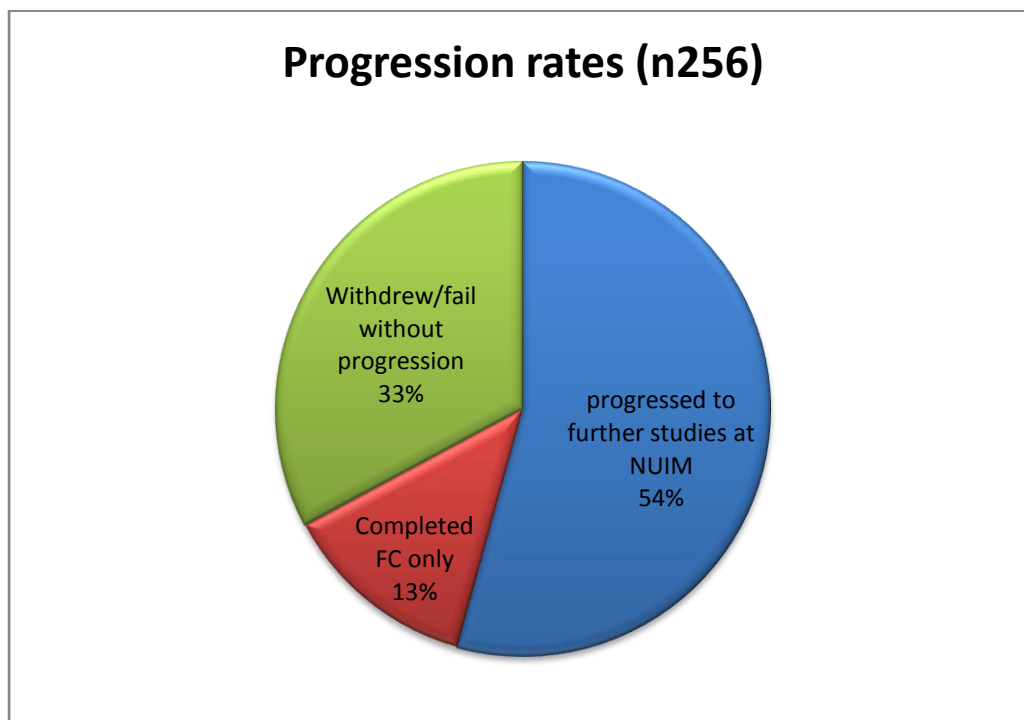


Figure 15: Progression rates across FCs

¹⁹ Twelve of those to progress to undergraduate studies did not successfully graduate from the FC programme, one who has no results recorded also progressed.

5.8.1 Progression choices

Table 6 details progression across Maynooth University (MU) Faculties: Science and Engineering; Social Science; and Arts, Celtic Studies and Philosophy (Humanities).

MU Undergraduate progression across Faculties	
MU undergraduate progression Faculty of Science and Engineering	75%
MU undergraduate progression Faculty of Social Science	23%
MU undergraduate progression Faculty of Arts, Celtic Studies and Philosophy	2%

Table 6- progression patterns across faculties

Further detail within table 7 gives a breakdown of programme choices. For the 75% who progress within the Faculty of Science and Engineering (including n2 to progress immediately to postgraduate studies), the Bachelor of Science is the most frequent destination. Table 7 numerically details those to graduate, those currently registered as students, and those who failed to complete undergraduate studies.

MU undergraduate progression Faculty of Science	No. to progress	No. graduated	Current students	Withdraw/fail
Bachelor of Science	n39	n11	n14	n14
BSC Computer Science and Software Engineering	n9	n2	n3	n4
BSC Engineering ENG	n9	n1	n3	n5
BSC Electronic Engineering with Communications	n7	n2	n2	n3
BSC in Physics with Astrophysics	n6	n4	-	n2
BSC Product Design	n5		n2	n3
BSC Biological and Biomedical Science	n4	-	n3	n1
BSC Multimedia, Mobile and Web Development	n3	-	n3	-
BSC Pharmaceutical and Biomedical Chemistry	n3	-	n3	-
BSC Chemistry with Pharmaceutical Chemistry	n3	n1	n1	n1
BA Mathematical physics	n3	n1	-	n2
BSC Electronic Engineering	n2	-	-	n2
BSC Science Biotechnology	n2	-	n1	n1
BSC Engineering/Computers	n2	-	-	n2
BSC Biological Science	n2	n1	-	n1
BA in Computer Science	n1	-	-	n1
BA in Science Education	n1	-	-	n1
Higher Diploma in Information Technology	n1	-	n1	-
BSC Genetics and Bioinformatics	n1	-	-	n1
TOTAL STUDENTS TO PROGRESS	n103	n23	n36	n44

Table 7: Progression to undergraduate studies within Faculty of Science

As can be determined from table 7, 43% (n44) of those progressing to undergraduate studies within the Faculty of Science and Engineering withdraw without completion. Thirty-five percent (n36) are current students whilst 22% (n23) have completed undergraduate studies.

As can be viewed in Table 8, a further 23% (n36) of progression is within the Faculty of Social Science. Table 8 numerically details those to graduate, those currently registered as undergraduate students and those who failed to complete undergraduate studies.

<i>MU undergraduate progression Faculty of Social Science</i>	<i>No. to progress</i>	<i>No. graduated</i>	<i>Current students</i>	<i>Withdrew /fail</i>
BA Arts (Finance)	n9	n5	n3	n1
BA Accounting and Finance.	n6	n4	-	n2
BBS Business and Accounting	n4	n3	n1	n0
BA in Anthropology	n3	n1		n2
BSS equine studies	n2	-	n1	n1
BA Business and Management	n2	n1	-	n1
BCL Law and Business	n1	n1		
BBS Entrepreneurship	n1	-	n1	-
BA Geography	n1	-	n1	-
Bachelor of Law	n1	-	-	n1
Certificate in Disability Studies	n1	n1	-	-
TOTAL STUDENTS TO PROGRESS	n31	n16	n7	n8

Table 8: Progression to first year undergraduate studies Faculty of Social Science

As can be determined, 26% (n9) of those progressing to undergraduate studies within the Faculty of Social Science withdraw without completion. Twenty-two percent (n7) are current students whilst 52% (n16) have completed undergraduate studies.

As can be viewed in Table 9, a further 2% (n3) of progression is within the Faculty of Arts, Celtic Studies and Philosophy. Table 9 numerically details those to graduate, those currently registered as undergraduate students and those who failed to complete undergraduate studies.

<i>MU undergraduate progression Faculty of Arts, Celtic Studies and Philosophy</i>	<i>No. to progress</i>	<i>No. graduated</i>	<i>Current students</i>	<i>Withdrew /fail</i>
BA Philosophy of Religion	n1	-	-	n1
BA in History and Economics	n1	-	n1	-
BA in Ancient Classics	n1	n1	-	-
TOTAL STUDENTS TO PROGRESS	n3	n1	n1	n1

Table 9: Progression to first year undergraduate studies Faculty of Arts, Celtic Studies and Philosophy.

Combined performance rates at undergraduate level are below.

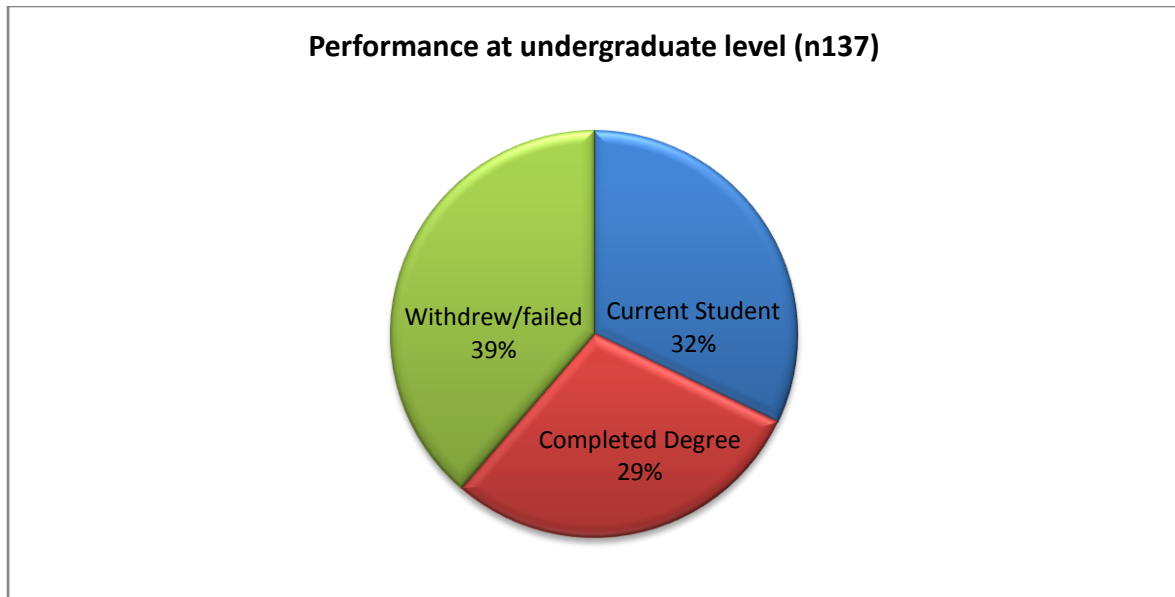


Figure 16: Performance at undergraduate level

The most likely period for withdrawal is non-progression to second-year affecting 25% of all those who progress.

Non-retention at undergraduate level is not unique to this researched cohort. A recent national report by the Higher Education Authority (HEA) revealed 16% of all undergraduates across HEIs fail to progress to second-year (HEA, 2014). Highest national non-retention rates are within Engineering and Computer Science, 22% and 23% respectively²⁰ (HEA, 2014: 17).

Calculating progression rates from the point of registration, 33% have progressed to undergraduate and/or postgraduate studies within Maynooth University and have either completed their studies or are currently registered within these programmes.

Whilst 100% retention is measured for those progressing to undergraduate studies from the 2012 intake, data available does not provide information on performance rates for this cohort during the academic year 2013-2014. This means the percentage of retention beyond first year for this cohort is not known.

²⁰ This relates to level 8 studies isolated from broad statistics from Level 6 which reveal a non-retention rate of 31% for engineering and 30% for computer science.

Sixty-seven percent to register for the FCs programme do not complete undergraduate studies within Maynooth University. The reader is reminded a further 13% completed the FC programme exiting studies with Maynooth University at this point.

5.9 Progression to postgraduate studies

There are also incidences where those to graduate from degree studies progress to postgraduate (PG) studies. Included in statistics as this point are two to progress directly to Masters in Computer Science. As both studied prior to 2006, no information is available on previous educational experience though both cite overseas nationalities increasing the likelihood of previous overseas undergraduate qualification. In total, 9% (n12) of all successful graduates from FCs (5% of the total registered cohort) progress to postgraduate studies.

Postgraduate progression pathways, performance and retention can be viewed as table 10 below.

<i>MU postgraduate progression Faculty of Science</i>	<i>No. to progress</i>	<i>No. graduated</i>	<i>Current students</i>	<i>Withdrew /fail</i>
PhD Science	n5	-	n4	n1
MA Computer Science	n2	n2	-	-
ME Electronic Engineering	n1	-		n1
<i>MU postgraduate progression Faculty of Social Science</i>				
MA Accounting	n2	-	n2	-
MA Military History and Strategic Studies	n1		n1 (deferred)	
PG Diploma Business Management	n1	n1		
Total	n12	n3	n7	n2

Table 10: Postgraduate progression and retention.

Within this postgraduate cohort, n2 list Junior Certificate as their previous qualification level with one listing no previous qualifications. Six are male and six are female indicating a higher proportionate percentage of women progressing to postgraduate level when considered against their representation within FCs.

Conclusion

Whilst a majority of students registering for the FCs programme do not progress to successful completion of undergraduate studies, it is important to emphasise that many do. This chapter demonstrates how 40 people (16% of the total research population) have completed undergraduate studies as a result of their decision to register for the FCs in Science, Engineering or Economics, Finance and Venture Management. Twelve people progress to postgraduate studies.

This chapter also demonstrates how these graduates are drawn from under-represented population groups with some holding dual eligibility for access entry. Given current trends in strengthening relationships with Further Education (FE) providers, it is worth noting how 20% of FCs students have previously undertaken studies at FE level, though it is unclear if these are full awards or component awards, which is not unusual with FE qualifications.

Whilst these statistics offer insight into characteristics, performance, progression and retention, qualitative findings within the next chapter add depth to numeric measurement through a detailing of participant experiences.

Chapter Six - Engagement of FC students and staff

The chapter opens with a thematic summary of the qualitative findings from student and staff participants. Following this summary student and staff findings are reported in detail. The chapter closes with some concluding remarks.

Ways in

- There was diversity in motivational, educational and occupational backgrounds for FC students.

Value of the Cert

- Student-participants, in general, spoke very highly about the FC programme. There was a general agreement amongst student-participants that the FC was a crucial part of their learning journey at university and a number of remarkable stories of personal, occupational and educational transformation emerged.
- Many students and staff participants referred to the social and emotional dimension of the FCs' value in preparing students for university life.
- Although some staff-participants were more qualified in their assertion of the value of the FC, most recognised the “second-chance” and social value of the FC programme.
- Some staff expressed concern of the academic currency of the FC in terms of providing students with authentic chances of progression in certain subjects.

Learning and curricular experiences

- Students and staff commended the FC's adult education and blended learning methodologies.
- Most students spoke highly of supportive tutors throughout the years of the FC programme.
- Maths was regarded as a core curricular component of the programme. Most students had very positive experiences of maths and much of this was attributed to the committed and compassionate work of individual tutors. There was some concern, amongst particular staff, about the degree to which the current curriculum prepares students adequately for further study in specific subjects.
- There was a more general agreement that the FC should be broadened to give an opportunity of foundational study in the array of subjects offered in the Faculty. However, there was caution against distilling the science-based focus, and rigor, of the programme by integrating it into a university-wide programme.

- There was recognition of the value of the transferable skills modules such as Study Skills and PC Skills.

The Maynooth Experience

- Although there was recognition of the possibilities of FE and HEI partnerships, there was general agreement across student and staff participants of the academic and social importance of the FC being located and delivered within the Maynooth University campus.

Challenges and supports

- Communication arose as an issue across staff and student participants.
- Student focus groups or evaluation exercises, when used, were acknowledged as useful fora for gathering feedback on the programme.
- Staff participants felt that it would be beneficial to introduce more opportunities for programme stakeholders to meet and collectively review programme delivery and/or development.
- A number of moves have been made more recently, and in line with the university's strategic objectives, to 'mainstream' aspects of the programme.
- There was some concern about the expense of the programme.
- More clarification on FC roles and responsibilities for key staff would be welcomed.
- Relocating the ownership of the FC within the university was considered, by some staff-participants, as important for the sustainability of the programme.

6.1 Student Experience of the Foundation Certificates (FCs)

The student-participants have been randomly assigned letters (A, B, C etc.) rather than pseudonyms to offset the possibility of misattribution or misidentification. Students who engaged through the Bristol Online survey are identified in parenthesis as “Bristol”.

The student experience findings are presented under a number of themes:

- Ways in and progression
- The value of the FC
- Learning experiences
- The Maynooth experience
- Challenges and supports
- Recommendations for FC development

6.1.1 Ways in and progression

As can be expected with a programme aimed at mature students, participants displayed a wide range of occupational experiences and background. Two had been to college previously but had not completed (participants Z, H) and others had completed a Further Education (FE) course or vocational training programme on leaving school (participants L, B, Q). Most had not been to university before and had been out of education for some time. One, who returned as a student to the Cert. in 2010, sat his Leaving Certificate in the late 1980s (participant Y). Another had left school at 14 years old, and worked in a factory for eight years (participant A).

Also worth noting is how, for some, occupational circumstances had been adversely affected by the recent recession. On more than one occasion, stories shared included redundancy. One notes how previous to this, going to university was not even considered when he was growing up in the 1970s – despite the availability of some grants: ‘we were poor ... it wasn’t an option for us’. Another shares, ‘I always wanted to come back to college to get a degree – if you wanted to be taken seriously to get a job you needed a degree’ (participant E). One participant, who left school at 14 years old, reflected on a lack of secondary schooling sharing ‘I feel my generation lost out on access to higher education’.

Student-participants reported a variety of ways in which they found out about the Foundation Certificate at Maynooth. These were word of mouth, guidance at a local Institute of Technology (IT), through FÁS, local advertisements in radio, newspaper, online browsing and through the magazine *Science Spin*. For some, the decision followed engagement with other aspects of Maynooth University, including advice from the Faculty of Science, Access Office; or Open Day activities. Two students transferred from degree programmes to the FC as an alternative to dropping out of their degrees.

For some student-participants, the convenience of Maynooth was significant. A number reported that they did not consider other HEI options because of this. However, coming to Maynooth was a major inconvenience for one student in terms of travel and childcare. Yet, she completed the FC and continued with the degree as she was committed to making a career for herself in science.

Although three of the participants did not complete the FC, most of those involved in the research activity successfully completed the programme. Several went on to do degrees in the sciences, and in a few cases humanities and social sciences, at Maynooth and other HEIs. A number have also completed, or are in the process of completing, postgraduate qualifications at Masters and PhD level. One student progressed to employment after the FC.

6.1.2 The value of the FC

Student-participants were asked to comment on their sense of the value of the Certificate programme. They spoke, in varying depth, about what the FC meant for them. Some talked in very positive terms about the FC programme and its importance in preparing them for undergraduate study:

‘I can’t speak highly enough of the course ... It was, in almost every way, ideal’ (X).

‘My life changed in 2002’ (E)

Most of these students claimed that they would not have ‘survived’ their degree without the FC.

Others were more qualified in their appraisal using terms such as ‘helpful’; ‘useful’; ‘well worth doing’ and ‘necessary’. Some participants, who had mixed experiences of the FC in general, still acknowledged the value of the FC in terms of preparation for degree

progression. For many the value was as much about learning and adapting to being a student as much as it was about developing academic knowledge and expertise:

‘It taught me how to study with a focus’ (Z).

‘It was all about managing life for me’ (U).

‘I would have been overwhelmed without it’ (Bristol).

6.1.3 *Learning experiences*

Generally, discussions of learning experiences were focused on specific subjects (see below), but some made a few general comments about learning on the programme. Student-participants commented positively on small-group sizes and the importance of support from peers. The importance of small, discussion-based sessions as a forum for raising issues and concerns was highlighted. Others talked about the importance of motivation and developing a degree of autonomy in terms of successful completion.

There were a few negative remarks regarding a perceived lack of empathy of some teaching staff to the realities of mature student experience.

There was some discussion around the practice of ‘immersion’ of FC students in the past in First Year lecture-based modules. For some this was a very positive experience as it gave them a sense of what undergraduate study would be like. Even those who were relatively circumspect, and even suspicious of departmental motives for immersion, recognised a potential value in this approach as long as it was part of an integrated mode of delivery that counter-balanced this intense and sometimes overwhelming experience with more reflective small-group sessions’

‘It was good to have one experience of what first year was like. But then it was great to have the smaller class to develop your networks of friends and things like that’ (X).

‘Attending junior freshmen lectures in biology was fantastic ... being able to attend first year lectures not only gave me an idea of what to expect for first year of a degree course but also to feel part of the college life. I particularly enjoyed the chemistry and biology classes’ (Bristol).

‘I think the best thing about this course was that we were mixed in with degree students for certain classes and this was eye opener to how it would be if we were on a degree’ (Bristol).

There were some mixed experiences of progressing students who claimed, or tried to claim, credit for undergraduate modules which they covered on the FC: some were able to claim credits and felt it was beneficial as it provided some more space for students to acclimatise to First Year.

There was some discussion around the benefit of notes in certain subject, particularly maths, and the benefits of Moodle when it was used.

Subject-specific issues

Maths was brought up a lot by student-participants (and staff) throughout the qualitative engagement process. Many students talked about the importance and centrality of maths to the FC programme. Generally the experience of maths was very positive with particular commendation being directed towards the facilitation skills of the maths tutor. The importance of high-quality instruction in maths was raised by a number of participants. Again the sense of a good tutor being able to ‘take the fear’ out of a subject was reiterated. Some students commended the work of the maths support staff. However, a few articulated misgivings about the delivery of maths and suggested that there was an area of the FCs which needed to be reviewed.

There was, generally, agreement about the usefulness of module such as Study Skills and PC Skills. Some talked about not appreciating the value of such modules until they progressed to undergraduate study. A number of students commented on the use, and need, for academic writing skills. Participants also talked about the value of Study Skills as a place to discuss their experience as mature students. Some participants declared relatively high levels of IT skills and, for them, there was limited value to a compulsory PC Skills module – others, conversely, were less confident and valued the opportunity to develop their computer skills.

Laboratory (Lab)-based learning was regarded as an important part of the student learning experience. There were some criticisms about the lack of coordination of Lab experiments with their corresponding class-based subject. There were a couple of voices who felt that students would benefit from more preparation for Lab work. However, it was difficult for participants to reach a consensus on this last point, as some, conversely, felt that FC students needed to learn to work in situations which required more autonomy.

Curricular breadth and level

Generally the student-participants were positive about their science and business-based subjects, although there were a couple of comments about the relative thinness of the chemistry and physics curricula.

Most students felt that the subjects offered were relevant to their destination aspirations. Although, there was some assertion amongst a few participants about a sense of inflexibility in subject choice which meant that some students needed to do subjects within the FC that they had no interest in.

Many, but not all, of the student-participants did the FC when biology and chemistry were part of the programme. Students who were not aware of the withdrawal of these subjects were very surprised to hear that they are no longer part of the programme and many commented that they would not have done the course without the presence of these subjects. Several participants made the point that it was very important for a science-based FC to have, at least, some exposure to biology and chemistry.

‘It is very flawed that the biology and the chemistry have been removed from the certificate’ (Y).

‘I think that it’s a shame [that biology and chemistry are no longer part of the Cert.] It can become too narrowly focused’

‘What’s the point in doing it then? There’s no point ... in doing the Cert in Science if they are not going to put biology into it’ (G).

Exposure to biology and chemistry on the FC was not just important in terms of academic preparation but also, as several commented, for making informed choices about progression routes.

There was some discussion around level of study which students were expected to work at on the FC programme. Some students felt that the level of study was about right, although a number felt that aspects of the curriculum could have been more rigorous.

6.1.4 The Maynooth experience

The research team were keen to establish student-participants' opinion on alternative models of programme delivery including FE-based or FE-HE partnership models as outlined in Chapter two. The student-participants were engaged in questions and discussion around the relative importance of a FC programme being located, as it is currently, solely on Maynooth University's campus.

There was a strong consensus across participants that being on campus was important for developing practices of being a student - getting to manage and use spaces in timetable to do work and, generally, to get acclimatised to the rhythms and demands of everything involved in university life:

‘it gives you a push being on campus, it is very different from Further Education colleges when you are in FETAC you lose the value that is attached to going to a college’ (L).

‘You learn the language of the university’ (Z).

‘It gets you familiar with the place ... it gets you into the routine ... There is that familiarity when you come back and you have a bit of social circle before you start’ (G).

There were a few concessions given to the idea of a degree of blended or partial-off campus delivery but overwhelmingly there was a feeling that the FC should be located on campus.

Social experiences

Student participants had mixed experiences of connecting with others in FC group and larger university population: some bonded well – others never really connected with the larger group. For some, there was a sense of the FC cohort breaking down into smaller, like-minded group of peers. However a couple reported that they made long-term friendships within the FC peer-group.

A number of participants explained that they didn't have much opportunity for socialising or making connections to the larger social life of the university outside of class time because of work, family and other commitments.

Gender

A couple of conversations explicitly touched on gender issues amongst the FC programme. One student felt that many mothers at home with aspirations of returning to education were probably unaware of the FC. Another participant commented on the ‘lack of gender balance’ in her group and the ‘very masculine’ environment of certain subjects (R).

Childcare

For some student-participants managing childcare was an extra, often difficult, layer of experience in their FC year. Individually and as a group the points were made about the inadequacy of childcare facilities on campus which, for some, was a source of stress and logistic difficulties in managing attendance.

Intercultural

There were a couple of comments which touched on the intercultural dimensions of the FC. One felt that ethnic groups mixed very well; whilst another felt that there was ‘a bit of a racial divide’ in the class (R). Another student, who was a relatively recent immigrant to Ireland, embarked on the FC for more cultural reasons rather than academic. She had the qualifications for direct entry for a degree – but wanted to use the FC year to learn what it would be like to be a student in university in Ireland.

6.1.5 Challenges and supports

Non-completion

Three participants did not complete the FC: two due to health reasons and the other due, in part, to a difficult relationship he had with one of the teaching staff. This latter participant did, what he referred to as, an ‘unsatisfactory’ exit-interview with someone he believed to be in an administrative role, which he felt was more for bureaucratic objectives rather than support. Others talked about experiences of peers who did not complete. Only one participant was under the impression that there were a lot of people dropping out of the programme. Participants felt that health, finances, pressures of family and work conspired, in addition to the demands of academic study, to non-completion for some of their peers.

Financial issues

A number of student-participants talked about the financial difficulties associated with returning to education and wondered if they would, or could, do it now because of the additional financial pressures on students. Others reported incidents of fellow FC students dropping out because of financial pressures. There was a sense that a student would need to

work about 20 hours a week to be able to stay in education. Some commended the work done by the Mature Student Officer in helping to resolve specific financial issues.

Supports and services

The student-participants were asked about their experience and feelings about the supports and services available. There was a range of responses on this issue. Some spoke in very positive terms about the support they received on the FC from a range of academic, Access and Support Services staff. A few talked about finding support themselves (academic and counselling) if they needed it.

There were a couple of voices who were critical of the more formalised Support Services. One participant indicated that he decided to drop out of the FC following, what he regarded in retrospect, as poor advice.

There was a suggestion that communications and relationships shifted from Access to academic staff once the FC programme commenced although several students acknowledged that they were aware that Access were there for support if needed. Once the programme was under way students developed relationships with tutors and academic departments, although some saw Study Skills as a link to Access.

Some participants felt that communication between students and the FC academic and support staff could be enhanced. There was a sense, amongst these students, of a need for more opportunities for communication once the programme commenced.

Key individuals

However a number of times throughout the qualitative engagement, student-participants talked about the significance of key staff, both from Access and academic departments, in supporting students through the programme. Sometimes the support, as with the Mature Student Officer who was commended a number of times throughout the research, was very practical (for example, resolving financial issues) and at others the support was more of an empathetic and emotional nature:

‘She [the Mature Student Officer] is always there if you needed her’.

6.1.6 Student recommendations for FC development

The research team considered the wealth and depth of experience of FC students as an asset to be utilised in the development of the review of the programme. As such, the opportunity which qualitative engagement with the student-participants offered was used to explore student-participants' reflections on possible change and ideas for development.

In order to avoid confusion with the final recommendations of this research, which can be found in Chapter Seven, the student-participant recommendations are included in the appendices of this report (Appendix 12).

6.2 Staff engagement with research

The purpose of engagement with the student cohort was to investigate, primarily, the experiences of participants as students on the FC. The purposes of qualitative engagement with staff were more multi-dimensional: in one sense, the researchers were interested in exploring, in more depth and from a different perspective, some of the themes and issues which were arising from the inquiry into student experience. However, the staff cohort was also regarded as a significant resource on some of the institutional, historical and structural aspects of the FC programme which were also under review as part of this research. Staff and students' contextual experience and knowledge was captured as part of the identification of areas for development for the programme. Furthermore, the account of the evolution of the FC programme (Chapter three) emerged, in no small part, through interviews with staff-participants who had a long association with the programme.

Staff engagement in the qualitative aspect of the research took place across a number of institutional contexts and roles associated with the programme: FC tutors; heads of academic departments involved in the Cert; staff responsible for coordination of the FC programme; staff involved in strategic-level decisions which had, or will have, an impact on the evolution of the FC programme. Some of the staff-participants are current employees of Maynooth University; others played a key role in the FC, at some level, but have since retired from the university.

Throughout the research process every effort was made to shield the specific identity of staff-participants. Although it is difficult to maintain anonymity of this cohort, as it is, in this

instance, relatively small in number, quotes from staff, if used directly at all, are not attributed.

As mentioned previously, staff-participants involved in the research included: five FC tutors; two Heads of Department; four staff (academic and Access Office-based) centrally involved in the FC programme; and two strategic-level staff. Out of these, three have since retired from the university.

A number of staff were contacted at tutor, departmental and strategic level but did not respond to the invitation, or declined, to engage with the research.

The staff-participant findings are presented under the following themes:

- The value of the FC
- The Maynooth Experience
- Teaching and curriculum issues
- Student challenges and support
- Operational issues for FC
- Staff recommendations for FC

6.2.1 The value of the FCs

Staff-participants, in general, spoke in positive terms about the value of the FC.

There was recognition of the FC's value in terms of providing access to students who may not have had the opportunity to progress through traditional routes:

‘the Cert provides students who have no other route to entry, an opportunity to study for a university degree’.

The FC facilitates ‘people who would not normally meet the standard second level entry requirements to gain access to third level education. This ethos of alternative access routes to education for people, I believe, is the strongest aspect of the programme’.

This ‘second-chance’ value of the FC was noted by other staff-participants who felt it was important to have a Foundation option to sciences – particularly for students who have been out of school for years and whose only experience of education is secondary school.

‘There are many who wouldn’t have progressed without the Foundation Cert’.

A number of staff-participants, in a variety of roles, reiterated this assertion about students ‘not surviving’ their degree without the Cert.

Other staff-participants talked about the function of the FC in preparing students, emotionally, for undergraduate study by repeated references to ‘removing the fear’ and ‘developing confidence’.

Some felt that the value of the FC was higher for the departments which are the destinations for the bulk of the students.

There was some concern about the expense of the programme. However, this short-term economic value measurement was re-framed by a more strategically placed staff-participant who recognised a value in the FC in creating progression routes for careers central to the development of the national economy.

Some staff-participants commented on the affordability of the programme for students as strength in itself.

There was some degree of ambiguity expressed about the sense of value of the FC for academic departments.

The question of value was contextualised by one academic-based participant with a long involvement in the programme. He posited, from an access perspective, the FC may be valued in terms of facilitating progression to undergraduate degrees. From a departmental or faculty perspective, the real test and challenge for students (both for direct-entry and FC undergraduates) is progression beyond second year and, ultimately, completion of the degree.

At a more strategic-level there was some recognition of the value of the FC in creating opportunities for the university to meet its widening participation targets.

6.2.2 The Maynooth experience

A number of staff across various roles talked about the value of the campus-based experience of the programme in terms of developing HEI-specific social, cultural and academic knowledge and skills which were generally regarded as being quite distinct from those of FE colleges and learning environments. Although there were a number of concerns about the capacity of FE to deliver an FC model of access alone, there was some acknowledgement made about the potential for a partnership model.

6.2.3 Teaching and curriculum issues

Qualitative engagement with the staff cohort raised a number of teaching, learning and curricular issues:

- Student focus groups or evaluation exercises, when used, were acknowledged as useful fora for gathering feedback on the programme.
- There was some concern, amongst particular staff, about the degree to which the current curriculum prepares students adequately for further study in certain subjects.

Teaching issues

Size of group and whole-year modules allows for development of important tutor-student learning relationships.

Some stressed the importance of creating teaching environment which allowed for students to feel confident to engage in questioning and that small group sizes facilitates individualised feedback. Some teaching spaces (e.g. Physics Hall) are not appropriate for workshop or group-work teaching methodologies.

The point was also made about the importance of a tutor who can communicate to/with mature students who may have been out of education for some time.

Flexibility in curriculum, in some aspects, allows for tailoring to specific needs of student group.

There is a high level of teaching commitment required for maths which means that tutor is usually recruited from outside the university.

Curricular issues

A high level of competency in maths, above any other one subject, is seen by a number of staff-participants as the most fundamental driver of successful student progression.

Computer Science module has grown in popularity.

Computer Science curriculum changed in response to student feedback.

There is a degree of cross-over in the content of Study and PC Skills. Some staff-participants are conscious that modules such as Study Skills can, for some students, seem irrelevant to the rest of their studies. However, staff relayed that often students acknowledge the relevancy after the course has finished and they've started a degree. Similarly, students may feel that they have sufficient IT skills, however there are often some quite specific uses of IT for academic use which many FC students will be unfamiliar with.

The position, and absence, of biology and chemistry on the FC programme was revisited by many of the staff participants.

Through previous focus groups and informal conversations, staff have established that some progressing students felt unprepared at undergraduate level without FC chemistry and biology.

Concern was expressed that some applicants might be excluding themselves from applying because of the lack of biology or chemistry.

‘It’s a huge leap to take up biology or chemistry when the last time you did it was Junior Cert. There is an issue for the university around that gap’.

For some staff-participants the withdrawal of these subjects changed and limited the progression route for applicants with educational or occupational aspirations in biology or chemistry – the FC was no longer a suitable pathway for these people.

One participant noted that the term ‘science’ in the FC title is not a fair description of the programme given that it does not cater for what many would believe to be major science subjects: biology and chemistry.

Some perceive this change more as a shift in curricular identity of the FC and that the replacement of chemistry and biology with computer science, on top of the existing engineering, gives it more of a ‘hard science’ complexion. One academic participant felt that

a broader mix of sciences would be valuable for foundation-level students and that chemistry and, to a lesser extent biology, should be included in the FC programme. His suggestion of a blend of chemistry and biology was also made by other participants.

Assessments and standards

The assessment framework for the FC was integrated with the university's broader policies and systems more recently.

FC Coordinator, in conjunction with Exams Office, has spent a lot of time more recently endeavouring to standardise assessment structures and mechanisms. Work on assessment standardisation is ongoing.

There was some suggestion that there are issues around the disproportionate Credit Ratings across modules: Maths: 20 credits; Study Skills: 2.5 credits. There was also a suggestion that the assessment framework for some of the courses does not apply to some of the other courses: a pass mark of 60% in one subject, may be the ceiling in another.

A number of participants expressed concern at FC student academic capacity for progression to end of degree. There was some difference of opinion, across the staff cohort, of the level of mathematics offered and required for successful progression – with particular concern, for some, to that required for engineering.

6.2.4 Student challenges and supports

Staff identified a wide range of issues as challenges and potential obstacles for progression for students on the FCs:

- Difficulties in adjusting to formal study after many years absence from education
- Personal and mental health problems
- Childcare difficulties
- Struggling to balance family, work and other external commitment with demanding academic study
- Time management difficulties
- Anxiety over presentations and academic ability
- Lack of motivation
- Recent difficulties with maths course – impacted on delivery and performance in other courses
- Concern that FC students remain isolated from rest of student body

It was also pointed out the programme itself, and the support systems offered through the Access Office, aims to address a number of these issues which are not uncommon for mature students returning to education.

Once the FCs are up and running, the Access Office is involved more in a supporting role as students will tend to go to their tutors or the Coordinator as their first point of contact for support. However, sometimes they will come to the Access Office. It will depend on the nature of the issue. The students know Access staff well before they even start and are comfortable coming to them.

During Orientation Week, which is held the week before undergraduates return, the students are shown where the Access Office is located and are made aware of the university's various support services. At that stage it is up to students to come if they have a problem. As the group is so small there is no need, according to participants, for designated tutorial or guidance sessions.

Some classes, such as Study Skills, which can often be discussion-based, can become places where issues are raised by students. Tutors are cognisant of responding appropriately and generally act as listeners or as a conduit for issues which they might direct to Access or the Coordinator – depending on the issue.

Although some staff-participants regarded this as an important function of small-group programme, there wasn't universal agreement that this was useful or appropriate. Some argued that students should be directed towards support services or the Mature Student Society.

Attendance of 80% is required. If there is an issue with attendance, tutors will tend to communicate this to the FC Coordinator or Mature Student Officer who will endeavour to support students appropriately.

6.2.5 Operational issues for FC

Communication

Communication, on a number of levels, was raised as an issue by several staff-participants.

Although communication occurs informally between staff stakeholders, there was a sense amongst several participants that more formalised communication processes would be beneficial.

Some staff felt that, on a broader institutional level, that there is little awareness of the FC programme.

There is also a sense, for some, that the FC could be marketed more extensively externally to prospective applicants. At the moment, social media is not used for this purpose.

Internal review and evaluation of Cert

There are informal reviews and evaluations of the FC programme throughout the year but nothing done on a systematic, collegiate or formal basis. One participant noted that there was very little data with which to evaluate programme systematically.

It was pointed out that the exam board meeting is the only formal institutional meeting relating to the FC but that this is primarily a discussion around final marks and not a space for internally evaluating the programme.

When used in the past, focus groups, and informal conversation with progressing students have been sources of some very positive and/or useful feedback and allow the FC organisers to get a sense of the positive longer term impact of the programme.

Study Skills is a space conducive for more open discussion. It can be a place where students provide feedback on the programme in general. However, there was also a suggestion that there was a need for students to be able to communicate more.

Responsibilities and roles

Many participants, particularly those in roles involved in managing and organising the FC or academic departments spoke of the importance of more clarity over roles and responsibilities.

A 'Roles and Responsibilities' agreement was devised in 2013 to clarify the roles of the Dean of Science, Coordinator, and the Access Office. Some staff felt, that despite this document, that there is still a lack of clarity relating to roles and responsibilities which may have, in part, arisen as an issue with the retirement of key staff in 2012 (see Appendix 11).

As an extension of this more general discussion, there were also some specific observations regarding the role, and some of the limitations, of the FC Coordinator role. There was a suggestion, across a number of interviews that FC coordination functions would benefit from institutional mainstreaming.

On a departmental level, Physics are happy to continue to have responsibility for hosting the Coordinator role at academic level. However, it would be good to have more clarity on the Coordinator role and clear institutional recognition regarding the proportion of a lectureship position which it represents.

Furthermore, there is a departmental willingness, if there was recognition of the resource-reality of the work, to take on more academic leadership in relation to the FC programme.

There was some elaboration of the role and function of Module Coordinators. Each subject on the FC programme should also have a Module Coordinator. However, there is a degree of ambiguity about the role and function of the Module Coordinator in relation to FC subjects.

Positioning and ownership of FC

Strategically the programme is located in Access – some participants felt that this weakens the programme and associates it with a deficit model.

The point was made by some that it was understandable that busy academic departments didn't see the FC as a priority to their core work of research and undergraduate and graduate teaching.

6.2.6 Staff recommendations for FC development

The research team considered the wealth and depth of experience of FCs staff as an asset to be utilised in the development of the review of the Foundation Certificate programme. As such, the opportunity which qualitative engagement with the participants offered was used to explore staff reflections on possible change and ideas for development.

In order to avoid confusion with the final recommendations of this research, which can be found in Chapter Seven, the staff-participant recommendations are included in the appendices of this report (Appendix 13).

6.3 Student and staff engagement with research – concluding remarks

Although the number of students and past students who engaged with the research was relatively low (9%), there was a depth in the qualitative data which adds considerable texture to the quantitative findings and review of literature and policy. Furthermore, a significant number of staff stakeholders from a number of different contexts associated with the FC programme engaged with the research which, again, is a significant contribution to the emerging knowledge of this research.

Both staff and students acknowledged the diversity in background and pathways of FC students over the years and there was recognition of the social value offered by the programme in creating a realistic pathway to university-level study in the sciences. Indeed, the research uncovered a number of remarkable student success stories which, in themselves, provide rich capital for celebrating the success of the programme and the university's broader strategic commitment to widening participation.

Such stories reflected the wider acknowledgement by staff and students, in particular, of the transformative educational, personal and occupational value of the FC. Part of this value of the FC was, for participants, due to the university-based nature of the programme. Learning on campus was regarded as important as it not only exposed students to the academic realities of science-based study at university level, but it also provided extremely valuable opportunities for FC students to acclimatise to the institutional, social and cultural aspects of university-life.

Students were, generally, very positive about the quality of teaching and learning on the FC over the years and commended the work and commitment of individual tutors. The relatively small size of the FC group facilitated adult education methodologies which helped bridge the gap into mainstream university learning. Maths was regarded as a key subject by students and staff alike – although some staff felt that more work needed to be done to help FC students get to the level of maths necessary for some of the undergraduate destination subjects in the faculty. There was also a desire amongst the participants for the FC curriculum to reflect the full breadth of subject choice available in the faculty without distilling the science-based focus of the programme.

Although it was acknowledged that the FC was run extremely well over the years, much of this success was down to the committed work of key individuals within the institution at certain stages. In order to develop as a successful and sustainable programme, some staff

participants felt that the FC should move towards adopting more mainstream, formal and visible institutional, and possibly inter-institutional, mechanisms and structures.

Chapter Seven – Emerging models of Foundation Certificates for Maynooth University

In line with the research terms of reference, this chapter considers three models of FC programme for Maynooth University to consider. The models are based on a review of existing and developing provision in Ireland (Murphy, 2009); desk-based review of provision in Northern Ireland and Scotland; and, importantly, the primary research conducted throughout this project.

7.1 Single-institute model

The single-institute model refers to Higher Education Institutions (HEIs) which have developed their own foundation or access programme(s).

The single-institute model is the most predominant model reported by Murphy in her review of 37 access and foundation courses across the country: twenty-five of the programmes in her review are delivered by single HEI institutions (Murphy, 2009: 32). This includes Maynooth University's FC and Return to Learning (RTL) programmes.

Fifteen of these programmes are part-time and 11 are full-time.²¹ Most of these programmes provide pathways to undergraduate study in the humanities and social sciences. In fact, only four of the thirty-seven programmes reviewed by Murphy had a curricular focus on science/engineering. This reinforces the specialist and, if not quite unique, at least niche status of the Maynooth University FC programme within the landscape of access in Ireland.

One advantage of the single-institute model is that it ensures that each HEI has control over its programme and can adopt it in response to student, academic and strategic needs and requirements. Another advantage of this model, if it is delivered on campus, is that it introduces foundation students to the academic, social and cultural realities of the university. This exposure to the broad spectrum of university life, both inside the class and around the campus, was something which participants in the current research project were very positive about and keen to maintain.

²¹ The discrepancy here between the sum of the part-time and full-time programmes (26) and the overall number which Murphy (2009) identifies (25) relates to the Waterford IT Certificate in Foundation studies being counted as one course with two modes of delivery (full-time and part-time).

However, there are also limitations with a single-institute model. In one sense it can narrow choices for students who are very much focused on progression routes within a particular HEI – their academic and occupational horizons will, in effect, be largely defined by the curricular offerings of that one institution. Although the current research was unable to quantify the exact number of FC students who progressed to study at HEIs other than Maynooth University, qualitative engagement with past students revealed that there were some who progressed to other universities. It is difficult for any one HEI to offer the full range of curricular choice on a foundation course which will aspire to the, often evolving, academic and occupational aspirations and life needs of students.

Another dimension to single-institute model is that the full range activities associated with provision needs to be taken on by that HEI: recruitment; admissions; teaching and assessment; accreditation; progression management. The work involved in such provision may seem disproportionate for the relatively small numbers of students on these programmes.

It should be reemphasised that although, in the qualitative research with staff and students, there were a few concessions given to the idea of a degree of blended or partial-off campus delivery, overwhelmingly there was a feeling that the FC should be located on campus.

7.2 HEI-partnership model

Murphy (2009) also identifies HEI partnership models in which two or more universities or HEIs collaborate in the provision and development of access or foundation pathways for students. Typically, in these initiatives, one institution/body takes a leading role.

NUI Galway is the lead institution in a partnership involving partners across the Borders, Midlands, West (BMW) and Co. Clare region. Seven institutions across this broad geographical region stretching from Clare to Donegal to Drogheda are involved. This model has a wider access remit than the purely mature-student focus of Maynooth's FC programme.

NUI Galway and Galway-Mayo IT (GMIT) have a separate partnership programme which targets students interested in studying science or business. Like the wider BMW programme mentioned above, this programme addresses, in part, access issues relating to rural population dispersion but targets, specifically, mature students who, on successful completion, will have the opportunity to progress to either institution.

The University of Limerick (UL) is the lead institution in the Shannon Consortium partnership which involves Limerick IT, IT Tralee, Mary Immaculate College and UL. Each of the partnership members had been delivering some form of foundation programme and the new initiative led by the Shannon Consortium is an attempt to collaborate and coordinate programmes across institutions.

Aspects of the HEI-partnership model may be attractive for Maynooth. In one sense developing such a model for a foundation programme would build on existing, and enhance emerging, institutional partnerships. For example, the 3U Partnership which incorporates Maynooth University, Dublin City University and the Royal College of Surgeons, aspires, as part of their developing partnership to

Enrich the academic opportunities available to our students by developing a range of joint degree programmes as well as broadening their choice of options

(3U Partnership, 2014)

This strategic commitment to the broadening of options for students may be something which a developing, cross-institutional FC programme might embrace and, thus, assist the university to meet its obligations and objectives of the 3U Partnership initiative.

Exploring such partnerships might also benefit progressing FC students by opening up their undergraduate options to appropriate curricular options offered by the three partner institutions. There may also be opportunities for the partner institutions to examine the feasibility of a 3U FC programme which is co-delivered across the three HEIs.

Maynooth University is involved in other cross-institutional partnerships which an evolving FC programme could build on. In 2013 Maynooth University and Athlone IT announced the formation of a strategic partnership between the two HEIs which would, amongst other goals, 'facilitate collaboration in ... student access and progression' (Maynooth University Partnerships, 2014)

Athlone IT has its own access/foundation programme which, although broader in curricular focus than the science-based Maynooth FC, also provides learning opportunities of mature students at maths and science at Level 6. As it stands, the Maynooth and Athlone programmes are operating at the same curricular level. As such, vertical progression from one programme to the other would not be possible. However, enhanced collaboration

between the two programmes could widen pathways to undergraduate progression for FC students.

7.3 FE-HEI partnership model

This model of foundation or access involves collaboration and coordination between a HEI-institute and one or more FE partner.

As detailed within chapter two, Trinity College Dublin (TCD) works in partnership with a number of City of Dublin Education and Training Broads (CDETБ) colleges (Liberties College, Pearse College and Plunket College) through its Trinity Access Programme (TAP). The curriculum for this programme is delivered predominantly in the FE settings, although a number of ‘taster’ activities take place at TCD during the year. The TAP-FE partnership programme targets mature students and younger students in areas of socio-economic disadvantage. Successful completion of the partnership access programme allows students to apply for reserved places on degree courses in TCD’s Faculty of Arts, Humanities and social sciences. This partnership programme does not facilitate entry to the sciences at TCD. However, a separate TCD-based access programme for mature students does provide opportunities for progression to the sciences.

This FE model of access is more common in Northern Ireland and Scotland. In fact, neither of Northern Ireland’s two major universities, Queen’s University, Belfast or University of Ulster, offer campus-based foundation or access programmes. Instead, these universities have developed links and articulation agreements with various FE Colleges to facilitate access from mature students. For example, there are eight separate science-based foundation or access programmes at Belfast’s Metropolitan College alone which provide pathways to study the sciences at Queen’s University Belfast (QUB). Although the programmes are delivered in FE settings, the courses are validated by QUB.

Similarly, in Scotland, many of the science-based access and foundation programmes take place in FE settings. The Scottish Wider Access Programme (SWAP) was established in the 1980s and has facilitated the progression of 32,000 students to HE since its inception. Much of that provision takes place in FE colleges across Scotland. Some colleges go further than foundation provision - students may complete the first or even second year of study with an FE college before progressing to a third or fourth year of a degree at a HEI.

There is also evidence of a shift from university-based foundation or access programmes to FE-based ones. For example, the long-running part-time access course at Edinburgh University will finish in 2015. Edinburgh College, a large FE multi-campus college, has been and will continue to deliver a range of foundation and access programmes which Edinburgh University recognises through their local articulation agreements. Although the curriculum of the foundation courses are usually based on FE modules, similar to FETAC/QQI, they are often enhanced or adapted to satisfy the academic expectations of university study.

So, in Northern Ireland and Scotland, there is a strong presence of FE-based access and foundation programmes for HEIs. However, these programmes are based on clearly defined and negotiated ‘articulation agreements’ which define the curricular and progression expectations and responsibilities of partner institutions.

The role of FE colleges in Ireland and their relationships with HEIs bears some marked differences to their counterparts in Northern Ireland and Scotland. It would be unwise to ignore the different historical and cultural contexts out of which Further Education developed (Murray *et al.*, 2014). In Northern Ireland and Scotland, the distinctions between FE and HE sector has become blurred in the last 20 years as many FE colleges now offer degree-level study in a range of vocational subjects. Over the years the two sectors have become familiar with each other’s academic expectations and curricular nuances. In contrast, the FE sector in Ireland has not, traditionally, being seen as a space for preparation or foundation studies for university study (Hardiman, 2012). Instead Irish FE centres offered a complete and usually vocational, education. Many FE students developed aspirations for progression to university study as they progressed through FE settings – but do not necessarily enter, initially, with that end-goal in mind (Hardiman, 2012). The FE and adult education sector in Ireland is rapidly evolving (Murray *et. al*, 2014) and historic realities are becoming less relevant. In ways different to Northern Ireland and Scotland, the FE sector in Ireland may provide some useful potential for an evolving FC programme at Maynooth. One of the concerns of some of the staff participants involved in the current research was the degree to which any nine-month programme can adequately prepare returning mature students for the rigorous academic realities of successful study of the sciences at higher levels. There was a sense, for some, that more time was needed for students to develop their maths and science knowledge and skills. This is borne out in measurements on performance: 37% were unsuccessful in

completing FC studies with 19% of those who commenced FCs recorded as failing the programme.

Although there may be a possibility for the FC programme to migrate to a FE setting, there is no desire emerging from the qualitative engagement from students for this to happen. Furthermore, many staff make the point about the difference of university maths and sciences when compared to school or FETAC/QQI curricula. Instead, increased collaboration with FE may provide, in part, a solution to recruitment and academic preparedness by providing a longer but possibly more successful, path into, a degree programme. A redeveloped FC programme at Maynooth may decide to recruit students onto a campus-based FC programme from FE-partner preparation programmes. This would provide students with an extra year to re-engage with the social, emotional and academic challenges of a return to education in the supportive and andragogic culture of an FE setting. This stepped approach may help students prepare for the academic rigour of university-based study and life which they will move more towards on a Maynooth FC programme.

Again, such redevelopment would require a commitment from, in particular, subject-specific and academic staff as much of the collaborative work with FE or HE partners will be happening at a curricular and standards level.

7.4 Adapting approaches to Maynooth University Contexts.

There are elements of each of the three models which are attractive for the Maynooth FC programme and it may be that the most sustainable model for the future is to draw on the possibilities of each.

There is, no doubt, a preference amongst research participants for, if not an exclusively single-institute model, then, at the least, a Maynooth-based one. Maintaining the programme primarily within Maynooth, acknowledges the social, emotional and academic value which participants associate with a university-based programme.

However, increased collaboration with FE partners, particularly those specialising in mature student programmes (e.g. VTOS) would enhance the academic capacity of students progressing to undergraduate study in the sciences through a deeper and longer engagement with science and maths. This longer engagement may address some of the concerns expressed by staff about the academic preparedness of students who have been away from

education for some time. Increased collaboration with FE partners would also represent a rich source of recruitment for the FC programme. Authentic collaboration would require some work for curricular and administrative cohesion to become a reality and would possibly benefit by drawing on the articulation agreement arrangements which are common in Northern Ireland and Scotland FE-HEI partnerships.

Finally, this model would also benefit by building on Maynooth's already-developing HEI partnerships (i.e. 3U Partnerships and Athlone IT). Again some work would need to be done to create curricular and administrative cohesion; however, such collaborations would broaden the resource, recruitment and destination capacities of all partner institutions at FC and undergraduate levels.

Chapter Eight - Strengthening pathways into, performance on, and progression from FCs

The Maynooth University Foundation Certificates (FCs) offer an important equality of Access opportunity for students traditionally under-represented within Higher Education Institutions (HEIs). It is one of the few subject-specific access programmes nationwide offering support for those wishing to pursue science and engineering-based studies.

Throughout this report, examples of the positive impacts attendance within these programmes have extended have been highlighted. These impacts have, for some, made a lasting impression on their life-chances and career progression. Some reduction in student numbers and high levels of withdrawal are also reported. As this report is produced within a period of austerity, it is likely that financial barriers to Higher Education (HE) have increased for many, with the additional costs of education often difficult to overcome.

Despite these structural concerns, equality of opportunity is an important educational aspiration and access mechanisms, such as the FC, offer people pathways to third-level study which may otherwise have been unavailable. In that regard the FC programme at Maynooth University has established a valuable, and unique, route to some of the most highly-skilled and in-demand occupational fields in both national and international contexts. In light of findings presented within chapters five and six, and discussion on potential models of delivery within chapter seven, each of the research questions posed will be addressed with corresponding recommendations proposed.

8.1 In what way are the FCs satisfying equity of Access criteria?

All participants completing the FC programmes fall within the criteria for access entry to undergraduate studies given their mature student status. Whilst the FCs does not actively target other groups who fit access criteria, there is evidence to support at least dual criteria for others including the presence of 6% with declared disabilities. Given the percentage of those who cite an African country as their nationality, coupled with some Irish people citing schooling in African countries, it is likely the certificate programmes are attracting students from ethnic backgrounds not traditionally represented within HEIs. These students were less likely to complete the FCs which indicates a need to assess if enough additional supports are

in place where English is an additional language. Considering those in receipt of the Back to Education Allowance (BTEA), some receive this allowance as a result of unemployment in later life. There is also some invisibility within data collected, one such potential being, for example, those who are Traveller or Black-Irish. This makes it difficult to interpret whether the FCs meet dual equity of access for these population groups.

Related recommendations:

1. Revise FCs application forms to include gathering of information on participants' ethnicity.
2. Targeted recruitment through FE colleges and local communities is further encouraged.
3. Undertake an assessment of needs for students for whom English is an additional language.

8.2 What are the curricular and wider support experiences once on the programme?

Student participants involved in the qualitative aspects of the research expressed, in general, a very positive experience of the FC programme. Many, including, staff participants, saw it as an essential foundational platform for undergraduate study in the sciences. The FC programme and ethos embraces many of the principles and practices of an adult education ethos which is appropriate for mature student development and progression. In particular, the programme is cognisant and strives towards achieving the optimum balance between academic, social and emotional development which is necessary for adult learning. There was a strong attachment and sense of identity from student and staff participants to the science-based nature of the FC programme. There was a similar level of consensus across students and staff in maintaining and strengthening, in terms of breadth and quality, this curricular identity in the sciences. However, there was recognition that the Study and PC Skills elements of the certificate programmes offer important complementary supports to students in preparing them for undergraduate studies.

Related recommendations:

4. Broaden the FC curricular programme to reintroduce chemistry and biology. This would enhance a key strength of the programme namely its science specific focus.
5. Introduce Laboratory workshops at week-ends or after the Leaving Certificate Science workshops in January.
6. Establish a formal and ongoing curricular review process to monitor and respond to curricular content, relevancy and standards. This process should, as much as possible, involve representatives of all stakeholders. Such a process is crucial in establishing and maintaining a recognised curricular currency for the FC programme across all university departments. This process could also review teaching and learning issues.
7. Explore opportunities for celebrating the successes of the FC. Such opportunities will not only provide welcome validation for student achievement but will also promote the programme to a wider audience. For example, collaboration with the university's Communication department on the FC success stories would not only promote the programme but highlight tangible and real-life achievements of Maynooth University's strategic goals in relation to widening participation.
8. Explore curricular links with partner HEIs and develop coherent curricular pathways into the FC programme with FE partners.

8.3 What are the progression, retention and performance rates at certificate, undergraduate, and postgraduate level?

The Maynooth University FCs in Science and Engineering (and historically Economics, Finance and Venture Management) are specifically targeted to support mature student access to undergraduate studies within the Faculty of Science and Engineering. Fifty-four percent of those who register for Foundation Certificates (FCs) progress within Maynooth University.

Whilst a majority of 54% progress; 41% of this is within the target faculty - the Faculty of Science and Engineering and 13% is within other Faculties at Maynooth University courses. Additionally, an unquantifiable number progress to other HEIs.

Whilst this does demonstrate demand for, and interest in science based subjects, it also shows a need for a more general approach to access potentially incorporating a broader range of subjects. This is available at Maynooth University through the FC Return to Learning

Certificate. A key non-subject related difference between the two programmes is compatibility with the Back to Education Allowance (BTEA). With 66% of those attending the FCs in Science and Engineering in receipt of Back to Education Allowance (BTEA), this programme may be more accessible even where subject interests may be better served on a broad based programme.

Related recommendations:

9. Establish regular student-focused programme evaluations to identify concerns that might dissuade withdrawal from the programme.
10. Establish an annual programme evaluation to review and, if appropriate, amend administrative, coordination and management processes, structures, roles and responsibilities. Such a process needs to include representation from Access and the Science Faculty.
11. Introduce exit-interviews within Access to enable greater understanding of non-completion within the FCs.
12. Create links with undergraduate programme coordinators to establish if greater supports can be introduced within the first year of undergraduate study.
13. With the current student groups build in evaluation mechanisms to determine demand for science related foundation studies when compared with broad subject delivery.

8.4 In what way do the Foundation Certificates (FCs) offer value for money considering context and resource allocation?

The report was unable to sufficiently address this question as insufficient information is available on cost per student across various contexts. Fundamentally, there is a conceptual difficulty in attempting such calculations as it is difficult to monetarily measure the significant personal and social impacts of the programme – a point that has been made more broadly in the literature (Gill *et al.*, 2013).

Qualitative engagement with students and staff explicitly considered the notion of value: most participants framed the value of the FC in terms of educational, emotional and social development. Some staff participants pondered on the cost of the programme at a micro-level within the institution, although the point was also made by a couple of participants

about the long-term benefits to society and the economy of maintaining and growing one of Ireland's few science-focused FCs.

Documentary evidence suggests that the cost of the FC programme is around €28,500 per year. Most of this cost relates to tutor payments and is borne largely by the Access Office. Notwithstanding conceptual concerns, cautious estimations of €2, 895 per student are presented incorporating costs to Maynooth University for student registration, exams and services (see page 45). Discounting income from fees, there is an average annual subsidy to the Access Office of €15,432. As discussed within chapter three, these figures are unreliable in ascertaining true student overheads and fall considerably short of estimates of €9,000-€11, 000 proposed previously (in Murphy, 2009: 127).

Related recommendations:

14. Consider alternative models of delivery that could reduce expenditure whilst not compromising student experience. These are greater collaboration with the FC in Return to Learning, and exploration of partnership approaches with other education providers as discussed below.

8.5 What is the most sustainable model for FC delivery into the future?

Identifying a sustainable model for the FC at Maynooth is based on a number of factors: the findings from research participants; expert opinions of support, academic and strategic staff; and a review of the wider policy and practice terrain which, in Ireland, is increasingly encouraging wider collaboration amongst FE and HE providers.

A sustainable model for the FC is proposed under three areas:

- Pathways into the FC
- Delivery of the FC
- Progression out of the FC

These three areas mirror the milestones for FC students in their journey into, through and as they exit the FC. Constructive developments of the FC programme at each stage in this cycle will, it is hoped, enhance its overall efficacy and, by extension, the experience of its students.

Much of the proposed developments are based on increased collaboration within the university and with FE and HEI partners.

8.5.1 Pathways into the FC

One of the main issues which staff participants raised in the research was concerns about the academic preparedness of FC students for successful completion of undergraduate study. There was a sense, amongst some academic staff that for students who have been away from education for some time, it can be difficult to adequately prepare them for the rigours of university-based science study in the current one-year format.

In order to address this, it is proposed that the FC develops, in collaboration with FE partners, clear, academically-enriched and relevant pathways from FE settings into the FC programme. In essence students who have an ambition to study the sciences at Maynooth may be directed towards a two-year foundation journey. These students would commence on a level 5 programme in an FE setting and, on successful completion, progress to the FC's level 6 programme at Maynooth.

These longer FE pathways would enhance the academic capacity for mature students to succeed at FC and undergraduate level - potentially addressing currently high failure and withdrawal rates at FC, and high non-completion rates at undergraduate level. It could also identify students possibly not suited to science-based study who could be guided towards an alternative educational pathway at an earlier stage.

There should also be a degree of flexibility in these entry routes to the FC. Maynooth staff need to be able to make judgments about whether an applicant should start directly at level 6 or would benefit from a year at level 5 first. Having a partnership programme at level 5 would ensure that staff would be able to offer applicants, who may not be quite ready for study at level 6, positive and constructive options.

Developing this FE enriched pathway at level 5 would require, initially, a degree of cross-institutional collaboration with administrative and, in particular, faculty staff. Partnerships with ETB-led programmes at Level 5 which target mature students, such as the Vocational Training Opportunities Scheme (VTOS), should be explored to develop such pathways.

8.5.2 Delivery of the FC

A number of broad curricular and operational recommendations to the FC have been proposed in sections 8.2-8.4. These relate to broadening and strengthening the curricular programme both within Maynooth and through exploration of partnerships and collaborations with other institutions.

Such enhancements would take place in the context of one of three models of delivery: single-institution; HEI-HEI collaboration; or FE-HEI collaboration.

Single-institute model of delivery

Single-institute delivery, largely, retains the programme's status-quo - the FC would remain largely autonomous from other education providers. Although there would still be a need to address the various curricular and operational recommendations contained in 8.1 to 8.4

Cross-collaboration with the university's Return to Learning programme is also a possibility within this model - potentially reducing tutor overheads through integrated delivery of study skills and other orientation modules. However, it is recognised that the incongruence of the FC and RTL's delivery modes (full time and part-time respectively) presents some difficulties for such collaboration.

It should be noted the bulk of student participants involved in the research were overwhelmingly in favour of a continuation of single-institution delivery. Students cited, as core advantages, access to specialist staff and laboratory equipment, and the chance to acclimatise to university life. Staff participants were also positive about the specificity of a HE-based science curriculum which FC students gain in a university setting.

HEI-HEI model of delivery

It is worth exploring possibilities of collaboration in FC delivery with existing HEI partnerships (i.e. 3U Partnership and IT Athlone). Again, the recommendations of this report would still need to be addressed. However, HEI collaboration may also address resource issues by, for example, sharing laboratory facilities and teaching staff across institutions for the FC. Such collaborations may be a way to share costs where partner institutions offer mature student access programmes.

FE-HEI model of delivery

It is important to clarify that collaboration with FE in delivery is different to the FE partnership potentials suggested above in 8.5.1 ('Pathways into FC'). The 'pathways to FC' partnerships suggest the possibilities of creating a stepped route into FC through a level 5 FE-delivered programme. Here, however, an FE-HEI model of delivery considers the potential of FE delivering, at least, in part the level 6 FC programme.

As highlighted previously TCD's TAP programme facilitates an access programme for mature students which is based, mainly, in FE colleges. In Northern Ireland and Scotland, most access courses are delivered almost exclusively in FE settings. These latter programmes have developed academic currency with HEIs through close inter-institutional collaboration in establishing local and national articulation agreements on curriculum, quality and progression.

Despite these possibilities, the findings from the current research do not support a shift to an FE-only model of delivery, as many students, and some staff, participants placed a high value on a campus presence for the Maynooth FC. As mentioned above, the Maynooth model supports acclimatisation for returning mature students, particularly for study skills modules which help adapt to relevant academic cultures and supports such as differences in grading criteria, referencing styles and use of library facilities. Laboratory-based work should also continue on-campus unless comparable laboratories can be sourced in FE settings.

Where FE-based delivery could work is through the provision of non-laboratory-based science classes and mathematics, although it should be noted some staff participants placed a high value on the specificity of university-based learning in science and maths. If part, or all, of Maynooth's FC programme migrated to an FE setting, authentic and sustainable collaboration would require some work, particularly in developing academic currency, for curricular and administrative cohesion to become a reality. Such collaborations could benefit by drawing on the articulation agreement arrangements which are common in Northern Ireland and Scotland FE-HEI partnerships.

A shared approach would potentially provide a more localised delivery (though it should be noted 38% of current and past students reside in Co. Kildare), reduce Maynooth University costs per capita, and assistance in bridging the gap between FE and Higher Education (HE).

Shared delivery with an FE college would not preclude articulation agreements and increased collaboration with other HEIs or single-institution delivery. For example, TCD has an FE-HEI partnership access programme and an exclusively TCD-based programme.

8.5.3 Progression from the FC

A number of recommendations have been made in 8.3 regarding progression and exiting for FC students. An enhanced model of the FC can also benefit from increased collaboration with HE-partners. Again this collaboration is distinct to delivery-based HE collaboration within the level 6 context, which was discussed in 8.5.2 above.

Relationships between HEIs could build on existing and developing institutional partnerships such as the 3U partnership of Maynooth University, Dublin City University and the Royal College of Surgeons and the university's partnership with Athlone IT. Possibilities for further exploration include strategic partnerships with the broader IT sector - particularly where colleges that are geographically close are delivering similar subjects at complementary curricular levels to the FC programme at Maynooth.

Collaborations may not require shared delivery but could take the form of reciprocal articulation agreements across institutions where cooperating HEIs could quality assure each other's FC programmes to draw successful students into their own undergraduate programmes. This would be of benefit to progressing FC students as it will expand their undergraduate choices, a reason cited by some research participants for choosing to continue their studies outside of Maynooth University.

Such collaborations would increase FC student mobility between the three partner HEIs and, in the process, open up another mature student pathway to the sciences at Maynooth University.

8.3.4 A collaborative FC model for Maynooth University

A sense of a more collaborative FC model emerges from this consideration of research findings and existing models.

Collaboration needs to work, firstly, within the various stakeholder departments of the university. The strength of the FC is its identity with the sciences. As such, the science faculty will take a leading role in the curricular development of any evolving model.

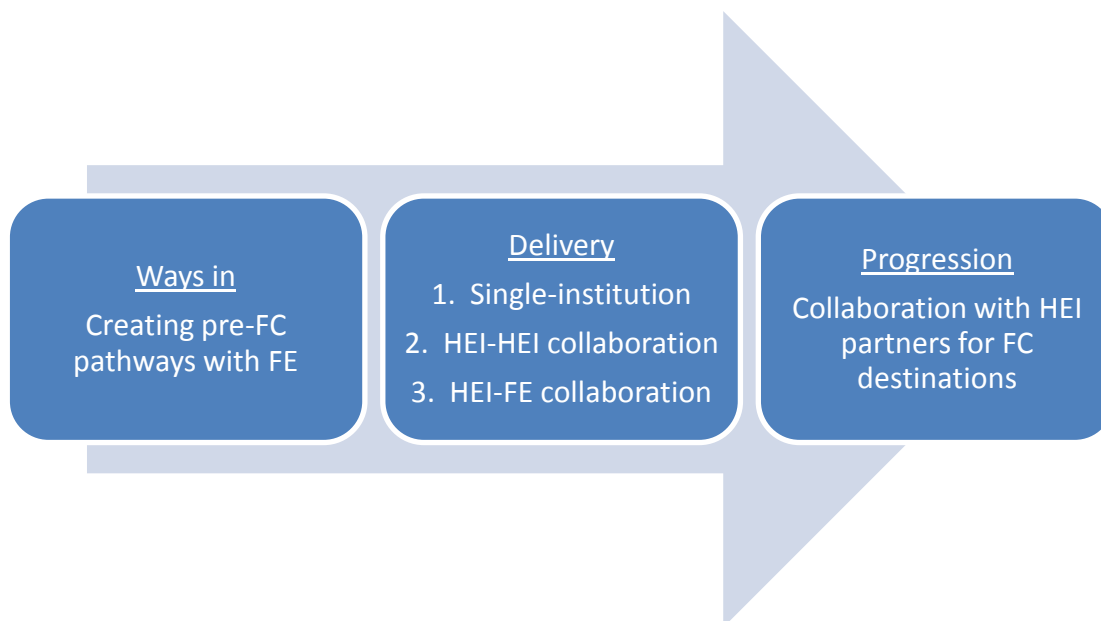


Figure 17: Collaborative FC model for MU

However, it is also envisaged the emerging model will, as outlined above, enhance student preparedness for the demands of science-based study by developing clear, relevant and quality-assured pathways, at level 5, with FE partners.

Collaboration will continue at delivery level both within Maynooth and between partner institutions. There are three broad options for delivery which need further consideration: single-institute; HEI-HEI; FE-HEI. Further exploration of the resource implications of such models needs to be considered before a commitment for one is made.

There are also benefits for building on HEI partnerships for progressing FC students and the university. Such partnerships will increase mobility between partner institutions for FC students into science-based subjects.

The current research finds that increased collaboration, whatever its specific nature, with the FE sector and the HEI sector offers the most fruitful opportunity for the evolution of a sustainable and effective FC programme. There are, of course, associated resource issues which will need to be explored in developing and nurturing such collaborations. This localised finding within Maynooth University is substantiated and strengthened by broader,

national strategic initiatives which aspire to increased inter-sector collaboration in improving equity of access to higher education (HEA, 2014b: 16).

At the core of the collaborative model is the principle that the academic and occupational interests of mature students returning to study are best-served by enriching educational experiences and opportunities at each stage on their journey into, through and beyond the FC programme – such principles are best realised by authentic and supported collaborations within and between education institutions and sectors.

Related recommendations:

15. Maintain and enhance campus-based delivery by expanding curriculum and formalising and clarifying operational processes and responsibilities.
16. Develop collaborations with HEI partners (3U Partnerships and IT Athlone) in terms of strengthening resource, curricular, recruitment and destination capacity.
17. Continue to forge strong relationships with FE providers with a view to further strengthening recruitment and academic pathways. Part of this activity should explore ways to position the FC on a coherent and integrated educational pathway involving pre-FC providers in FE contexts. Longer, but more connected pathways may help to prepare students for the appropriate academic level, particularly for maths, needed for successful FC completion and progression.

Further recommendations:

18. Consider developing a specific Access policy which may benefit future strategic planning in this regard.
19. Consider the introduction of a part-time or flexible programme delivery.
20. Consider abolishing the fees for the FC programme to bring it in line with many of the similar HEI-based access and foundation programmes.
21. Establish a working group to review the findings and implement recommendations from this report.
22. Consider similar research on the Certificate in Return to Learning.

8.6 Chapter conclusion

As one of the few science-focused, HEI-based access routes for mature students in Ireland, Maynooth University's Foundation Certificates have evolved into a suite of successful programmes which have enabled many students' educational, personal and occupational transformation.

Although there may be some issues around progression rates, the FC programme has undoubtedly facilitated access to higher education for nearly three hundred mature students since 2002.

The powerful blend of adult and higher education content and methodologies in a university setting has helped to create a positive experience and important academic foundation for students. There is evidence amongst the FC stakeholders of a desire to both broaden and strengthen the science-based curriculum to build on these positive social and academic experiences. It is recommended that such developments would coincide with enhanced staff and student review processes of the programme and its management.

Although there is a social, educational and strategic value which is difficult, if not impossible, to quantify in monetary terms, some university stakeholders may feel there is some use in further work to determine the specific cost of the programme.

Fundamentally, the continued success and sustainability of the FC programmes is grounded in the principle and practice of collaboration. At an institutional level this involves continuing the work already commenced on building authentic collaborative relationships between the Access Office, Faculty of Science and Engineering, and associated administrative departments of the university.

But the FC's future also hinges on developing inter-institutional collaborative relationships with FE and HEI partners at each stage of mature students' pathways into, on, and out of the programme.

It is through the development of authentic intra- and inter-institutional collaborations that Maynooth University's Foundation Certificate programme will continue to offer genuine pathways for mature students embarking on those first tentative steps towards a higher education in the sciences.

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Appendices

Appendix 1: Current Access provision across Leinster.

Information below is sourced from each HEIs web profile. Each also engages in building relationships with schools. Information on Access within MU is not included as this is provided within chapter three.

University College Dublin offers access through DARE and HEAR through a reduced points programme (approximately 15% less than traditional admission). Around 5% of all UCD places are reserved for HEAR and DARE participants respectively (totalling 10%) A programme of post-entry supports is also offered which combines academic, personal and social supports throughout third level studies.

Dublin City University also reserve 10% of entry spaces to those applying through Access routes. These are either through HEAR or the DCU Access Programme (offered to those under 23 years only). In 2011, DCU celebrated 21 years as the largest national Access programme recording almost 1,500 students with a retention rate of 93% (DCU, 2011: 3).

In addition **DCU in the Community** is a locally based supplementary service whose mission is to ‘act as a bridge between the community and the university’ (DCU, 2014). One programme is the Bridge to Education accredited at FETAC level 5. Without offering exemption or priority entry, the mission is detailed as to equip participants with the knowledge, skills and competencies potentially applicable within HE environments.

Carlow Institute of Technology (IT) are also participants in HEAR and DARE offering reduced points entry routes for those eligible. Candidates are drawn from those who have completed secondary school or those entering through Adult Education Providers enabling access through VTOS, Youthreach, Adult Guidance services and community education providers. This is facilitated through Carlow IT’s recognition of a FETAC major award as meeting eligibility criteria.

The Dublin Institute of Technology (DIT) offer potential routes to HE for those meeting standard eligibility requirements. Alongside a broad based one year DIT Foundation Programme, DIT are participants in HEAR, their main Access route. They also offer an access service offering CAO guidance including choice of programmes, and a grant additional to State awarded aid. DIT actively promote Access through the Higher Education Links Scheme enabling those with a FETAC major award at level 5 the possibility of admission through a reserved space scheme.

Alongside participating in HEAR and DARE, **Blanchardstown IT** reserve spaces for applicants under 23 years through their REACH programme offering reduced points spread across all programmes.

Additional to criteria identified by the National Access Office, **Tallaght IT** have published an Access Policy and Plan 2010-2013 that specifically names members of ethnic minorities and the Traveller community as eligible for Access through designated programmes (ITT, 2010: 1). Their action plan emphasises collaboration with local and national partners. Particularly emphasised are their Access to College Education (ACE) programme delivered in Tallaght, and Clondalkin Higher Education Access Programme (CHEAP). Both are open to those attending specifically targeted schools offering post-entry supports Post entry supports are Tallaght IT also participate in the Higher Education Links Scheme offering potential entry to those with a FETAC major award at level 5. Additionally Tallaght IT offer a student assistance Fund distributed amongst a high number of students (ITT, 2010: 3).

Appendix 2: Nationalities of Participants at time of registration

Named Nationality	Number of participants
Bangladesh	n1
Brazil	n3
Cameroon	n1
China	n5
Democratic Republic of Congo	n5
Denmark	n1
France	n2
Great Britain	n4
India	n1
Ireland	n203
Iran	n5
Iraq	n1
Jordan	n1
Lybian Arab Jama	n1
Malawi	n1
Malaysia	n1
Moldova	n1
Netherlands	n2
Nigeria	n6
Pakistan	n1
Philippines	n1
Poland	n2
Romania	n1
Russian	n1
Rwanda	n2
Slovakia	n1
Somalia	n1
South Africa	n4
Spain	n1
Sudan	n3
Sweden	n1
US	n4
Unknown	n3
Total	271

Appendix 3: Ethical approval

NATIONAL UNIVERSITY OF IRELAND, MAYNOOTH
MAYNOOTH, CO. KILDARE, IRELAND

Dr Carol Barrett
Secretary to NUI Maynooth Ethics Committee



NUI MAYNOOTH
NUI MENOOTH

27 May 2014

Jerry O'Neill
Adult and Community Education
NUI Maynooth

RE: Application for Ethical Approval for a project entitled:
'Review of NUI Foundation Certificates in Science and Engineering'

Dear Jerry,

The Ethics Committee evaluated the above project and we would like to inform you that ethical approval has been granted.

Kind Regards,

Dr Carol Barrett
Secretary, NUI Maynooth Ethics Committee

SRESC-2014-030

Appendix 4: Student recruitment email out

Dear XXX

I am writing to you on behalf of the Department of Adult and Community Education who are reviewing the various Foundation Certificate programmes (Science; Engineering; Finance, Economics and Business) since 2002, which, we understand, you were/are involved with as a student.

Whether you completed the Certificate or not, the researchers are very interested in talking to you, in strictest confidence, about your experience of the programme.

Jerry O'Neill and Camilla Fitzsimons, from the Department of Adult and Community Education (**DACE**) at the university, are conducting the research on behalf of, but separate to, the Access Office. If you chose to talk to them, your identity or involvement would not be shared outside of their small research team at DACE.

They would be interested in talking to you, either as part of a group or individually, about:

Your motivations and reasons for choosing the Foundation Cert at Maynooth

Your experiences of being a student on the Foundation Cert programme

Your experiences after the programme (in particular, they'd be interested in hearing to what extent the programme prepared you for what you did next).

There are a number of ways in which you can share your experiences:

Jerry and Camilla are hoping to bring current Cert students together and past-Cert students together in separate groups to discuss experiences in a confidential setting. If you'd rather not participate in a group discussion, you could talk to them in a one-to-one context (in-person, phone, or email). The important thing is that you have an opportunity, if you want, to share your experience.

The group discussions and/or individual conversations will take place in June 2014.

If you would be interesting in getting involved with this project, **please email Jerry or Camilla** using the contact details below. If you are interested, please get in contact with them before the **12th of June 2014**.

Although, there will be no direct material benefit for your participation, your involvement will represent a central and important contribution to a review of the Foundation Certificate programme. We hope that you consider taking part in this important piece of research which will contribute to enhancing the experience of future students.

You will be able to review the outcome of the research, when available, by consulting the Access Office page on the NUIM website: www.nuim.ie/access-office.

Finally, this email is being sent from Student Records as this is where all the information on past and present students is held. We have not shared any information with the researchers which reveals your identity or contact details. The researchers will only become aware of your personal identity if you choose to get in contact with them.

Regards

Student Records

If you require further information about the project please contact:

Camilla Fitzsimons
camilla.fitzsimons@nuim.ie
Direct phone: 01 708 3761

Jerry O'Neill
jerry.oneill@nuim.ie

Department of Adult and Community Education
Education House
North Campus
National University of Ireland, Maynooth
Maynooth, Co. Kildare
Phone: 01 708 3784

Appendix 5: Student recruitment postal mail-out

Dear XXX

I am writing to you on behalf of the Department of Adult and Community Education who are reviewing the various Foundation Certificate programmes (Science; Engineering; Finance, Economics and Business) since 2002, which, we understand, you were/are involved with as a student.

Whether you completed the Certificate or not, the researchers are very interested in talking to you, in strictest confidence, about your experience of the programme.

Jerry O'Neill and Camilla Fitzsimons, from the Department of Adult and Community Education (DACE) at the university, are conducting the research on behalf of, but separate to, the Access Office. If you chose to talk to them, your identity or involvement would not be shared outside of their small research team at DACE.

They would be interested in talking to you, either as part of a group or individually, about:

Your motivations and reasons for choosing the Foundation Cert at Maynooth

Your experiences of being a student on the Foundation Cert programme

Your experiences after the programme (in particular, they'd be interested in hearing to what extent the programme prepared you for what you did next).

There are a number of ways in which you can share your experiences:

Jerry and Camilla are hoping to bring current Cert students together and past-Cert students together in separate groups to discuss experiences in a confidential setting. If you'd rather not participate in a group discussion, you could talk to them in a one-to-one context (in-person, phone, or email). The important thing is that you have an opportunity, if you want, to share your experience.

The group discussions and/or individual conversations will take place in June 2014.

If you would be interesting in getting involved with this project, you can email Jerry or Camilla using the contact details below or by filling out and returning the enclosed contact detail form. You can also use the enclosed stamp-addressed envelope to return the form. If you are interested, please get in contact with them before the **12th of June 2014**.

Although, there will be no direct material benefit for your participation, your involvement will represent a central and important contribution to a review of the Foundation Certificate programme. We hope that you consider taking part in this important piece of research which will contribute to enhancing the experience of future students.

You will be able to review the outcome of the research, when available, by consulting the Access Office page on the NUIM website: www.nuim.ie/access-office.

Finally, this letter is being sent from Student Records as this is where all the information on past and present students is held. We have not shared any information with the researchers which reveals your identity or contact details. The researchers will only become aware of your personal identity if you choose to get in contact with them.

Regards

Student Records

If you require further information about the project please contact:	
Camilla Fitzsimons camilla.fitzsimons@nuim.ie Direct phone: 01 708 3761	Jerry O'Neill jerry.oneill@nuim.ie
Department of Adult and Community Education Education House North Campus National University of Ireland, Maynooth Maynooth, Co. Kildare Phone: 01 708 3784	

Contact Detail Form

for possible participation in research into NUI Maynooth's Foundation Certificate programmes.

If you are interested in helping out with this research, please complete this form and return it to the research team (Jerry and Camilla) using the stamp-addressed envelope provided.

Please be aware that sending them your contact details doesn't mean that you need to get involved with the research. It merely allows them to get in contact with you to talk about that possibility. You have the right to withdraw from the research at any stage.

This information is solely for the researchers, Jerry and Camilla, based at the Department of Adult and Community Education. Your identity, or any information which might reveal your identity, **will not** be shared with anyone or any department outside of our small research team.

Your name	
Contact details: Please let us know how you would like us to get in contact and provide details below	
Phone	
Email (please print carefully)	
I am happy for the research team to contact me about the project outlined in the enclosed letter.	
Signed:	Date:

Please use the enclosed stamp-addressed envelope to return this form.

Appendix 6: Research information and consent form

Information and Consent Sheet for Participants into Research of NUI Maynooth's Foundation Certificate programme.

About the research

The purpose of the research project is to review and evaluate the Foundation Certificates for Science; Engineering; Finance, Economics and Business programmes. As well as investigating and analysing computer-based and paper records relating to the programme, the research team will also engage with students, past-students and various NUIM staff members who are, or have been involved, with the Cert. The outcome of the research will be important for the future development of the programme.

About the research team

A team from the Department of Adult and Community Education (DACE) have been commissioned by the Access Office at NUIM to conduct the research. The primary researchers are: Camilla Fitzsimons and Jerry O'Neill. The researchers will be supported by a Research Advisory Group from DACE.

About your involvement as a participant in the research

If you choose to get involved in the research, please be aware that:

Your participation in the research is entirely voluntary.

Your involvement and identity will be held in strictest confidence by the research team and will not be shared with anyone outside the small team from DACE. However, due to the relatively small number of NUIM staff involved with the programme, inferences may be drawn about the identity of staff participants.

You have the right to withdraw from the research at any time.

Interviews and Focus Groups will generally take place at a discrete location within NUI Maynooth. However, some research may take place off-campus at locations more convenient to participants.

Interviews and Focus Groups will last between 60-90 mins.

Notes and audio-recordings may be used during the research process. Any record or recordings of your contribution to research will be held securely and destroyed in the standard time-frame of five years after the completion of the project.

Participants who attend group discussions have a responsibility to respect and protect each other's confidentiality.

Information gathered in the research process will be used to write a report which will be submitted to the Access Office in September 2014. Information may also be used to advance academic knowledge in this field.

Although there will be no direct material benefit for your participation, your involvement will represent a central and important contribution to a review of the Foundation Certificate programme and research in this area in general.

If you are willing to consent to partake in this study on NUIM's Foundation Certificates please complete the following:

I, _____, hereby consent to partake in this study, under the conditions outlined above.

Signature: _____ Date: _____

Contact details

Researchers:

Camilla Fitzsimons camilla.fitzsimons@nuim.ie
direct line: 01 708 3761
Jerry O'Neill jerry.oneill@nuim.ie

Advisory Research Group members:

Dr Bríd Connolly; Dr Bernie Grummell; Dr Fergal Finnegan

Researchers and Advisory Group based at:

Department of Adult and Community Education
Education House
North Campus
National University of Ireland, Maynooth
Maynooth, Co. Kildare

Phone: 01 708 3784

If during your participation in this study you feel the information and guidelines that you were given have been neglected or disregarded in any way, or if you are unhappy about the process, please contact the Secretary of the National University of Ireland Maynooth Ethics Committee at research.ethics@nuim.ie or +353 (0)1 708 6019. Please be assured that your concerns will be dealt with in a sensitive manner.

Appendix 7: Tutor research recruitment email

Dear [tutor name]

As you may be aware, myself and Camilla Fitzsimons from the Department of Adult and Community Education are doing some research which aims to provide a review of the Foundation Certificates in Science and Engineering.

As part of the research we would like to give you the opportunity to share your thoughts and experiences of the programme from your position as a tutor.

We are asking tutors, and former tutors, of the programme to consider the following questions to compose a written response, through email. You can answer each question individually or use them to develop a more general narrative of your experience as a tutor. These responses will help us develop a review of the programme and, more specifically, identify issues which need to be addressed in its future development.

What did/do you teach on the Cert programme?

How did you get involved with the Cert?

How long were you/have you been involved with the cert?

What would you regard as the strengths of the programme?

What did/do you feel were/are the challenges for students on the Cert?

What needs to be changed or developed further?

Please feel free to share any other comments or observations of the programme.

If you would like to have an input into this review, please reply to me by email before the 4th of July 2014.

Please find attached the research information and consent form for the project. Participation is, of course, voluntary and every attempt will be made to protect the identity of participants. However, as you may understand, there are limitations to our ability to ensure anonymity of core staff given the small numbers involved.

If you are happy to be involved, please either: complete and return the attached form (contact details are on the form) or read and explicitly state in an email reply that you have read the form and are happy to be involved in the research.

Regards

Jerry

Appendix 8: Ex-staff research recruitment email

Dear [ex-staff]

I believe that the Access Office at Maynooth were in touch regarding some research into the university's Foundation Certificates which is being carried out by myself and Camilla Fitzsimons from the Department of Adult and Community Education.

The purpose of the research project is to review and evaluate the Foundation Certificates for Science; Engineering; Finance, Economics and Business programmes from 2002 to 2014. As well as investigating and analysing computer-based and paper records relating to the programme, we are also engaging with students, past-students and various NUIM staff and former staff who are, or have been involved, with the Cert.

As part of this research we would like to talk to you, as someone closely involved with the Cert over a number of years, about your opinions and experience of the programme.

We are hoping to complete our primary research by the middle of July.

We could arrange to meet in person, or, possibly more conveniently, we could talk on the phone over the next couple of weeks.

The conversation would be semi-structured and I would be interested in talking to you about the following broad areas to help us develop a sense of the Cert's evolution, strengths and challenges for growth:

The early days of the Cert - how did it start? [if you were there for that]

Your role and how you got involved.

Your sense of the value of the Cert. To what extent does it prepare students for progression to degree-level study?

What worked well on the programme- what were its strengths?

What things could have been improved? What were the challenges?

What kind of things could the university put in place to ensure that it has a sustainable future? If you are happy to be involved, please get in touch to arrange a time to talk/meet.

Please find attached the research information and consent form for the project. Participation is, of course, voluntary and every attempt will be made to protect the identity of participants. However, as you may understand, there are limitations to our ability to ensure anonymity of core staff and former staff given the small numbers involved. If you decide to take part, please complete the attached form or read and explicitly state in your email reply that you have read the form and are happy to be involved in the research.

Regards

Jerry

Appendix 9: Head of Department research recruitment email

Dear [head of academic department]

As you may be aware, myself and Camilla Fitzsimons from the Department of Adult and Community Education are doing some research which aims to provide a review of the Foundation Certificates in Science and Engineering.

As part of the research we like to give you the opportunity to share your opinions and experience of the programme from your position as a Head of Department for one of the Cert subjects.

We are asking Heads to consider the following questions to compose a written response, through email. You can answer each question individually or use them to develop a more general narrative response. These responses will help us develop a review of the overall design and delivery of the programme and issues which need to be addressed in its future development.

What are your roles and responsibilities, if any, in relation to the Foundation Cert programme?

To what extent does the Foundation Cert programme prepare students for progression in your department's subject areas at undergraduate level?

From your department's perspective, what aspects of the programme work well?

From your department's perspective, what aspects of the programme need to be developed or changed?

Please feel free to share any other comments or observations of the programme.

If you would like to have an input into this review, please reply to me by email before the 16th of July 2014.

Please find attached the research information and consent form for the project. Participation is, of course, voluntary and every attempt will be made to protect the identity of participants. However, as you may understand, there are limitations to our ability to ensure anonymity of core staff given the small numbers involved.

If you are happy to be involved, please either read and complete the attached form or read and explicitly state in an email reply that you have read the form and are happy to be involved in the research.

Regards

Jerry

Appendix 10: Maynooth University strategic staff recruitment email

Dear [strategic person]

As you may be aware, myself and Camilla Fitzsimons from the Department of Adult and Community Education are doing some research which aims to review the Foundation Certificate programmes in Science; Engineering; and Finance, Economics and Business.

There are a number of strands to the research: we are investigating quantitative data which has been supplied, and anonymised, by Student Records; we are inquiring into the student experience of the programme over its lifetime through a series of Focus Groups and interviews with past and present students; and we are also engaging with staff who have experience and/or a strategic interest in the programme.

As part of the research we like to give you, as someone who is involved in the strategic aspects of the university, the opportunity to share your opinions and/or experience of the programme (e.g your assessment of its strengths and weaknesses, place in broader university strategy, hopes, suggestions, etc.).

In particular, we would be interested in your thoughts on the specific ways in which a Foundation Certificate programme would evolve over the next few years in a way that is consistent with the university's strategic educational goal which promises to "... sustain our success in widening participation in higher education, strengthening access programmes, responding to new needs, ensuring an inclusive curriculum, and mainstreaming and integrating our supports for student success." (NUIM, Strategic Plan 2012-2017, p. 19).

If you wish to input into this review, please reply to this email with your comments before the 18^h of July.

Please find attached the research information and consent form for the project. Participation is, of course, voluntary and every attempt will be made to protect the identity of participants. However, as you may understand, there are limitations to our ability to ensure anonymity of core staff given the small numbers involved.

If you are happy to be involved, please either read and complete the attached form or read and explicitly state in an email reply that you have read the form and are happy to be involved in the research.

Regards, Jerry

Appendix 11: FC – Roles and Responsibilities

Roles and Responsibilities of

Science Faculty
Coordinator of NUI Certificate Programmes
Access Office
Dean of Science and Engineering

The Faculty of Science & Engineering is responsible for the following in relation to the Certificates:

Overseeing academic standards;
Course curriculum;
Marks and Standards;
Provision of academic tutors (with Access Office where appropriate);
Discipline and Classroom Issues;
Chair pre-Exam Board Meeting with Coordinator/Access Office and recording of decisions;
Chair Exam Board and recording of decisions;
Reporting/disseminating information on NUI Certificates to University (with Director of Access).

Coordinator of NUI Certificate Programmes

The role of the Co-ordinator of the NUI Certificates in Science and Engineering is to organise the associated activities related to the Certificates efficiently and effectively for both the students and the University. These responsibilities include:

Preparation of student lists for tutors and departments;

Timetabling of classes and examinations;

Organising rooms and labs;
Communicating with tutors;
Development of the Student handbook;
Development of the Tutor handbook;
Orientation and Mathematics Week duties;
Communicating with Registrar's Office/Records Office regarding registration of new students and Module Outlines in consultation with the Dean of Faculty
Communicating to Dean of Faculty issues with Marks and Standards;
Monitoring student attendance and participation;
Referral of student difficulties/retention issues to Access Office;
Collating all student examination results;
Return/ upload of examination results to the Examinations Office;

Scheduling and providing supporting documentation for the Pre-Exam Board meeting with Dean of Faculty, Access Office
Scheduling and providing supporting documentation for the Exam Board meeting;
Final committal of results to the Examinations Office Tabulating progression of students;
Preparation of Annual Course Report.

The Access Office are responsible for recruiting students for the NUI Certificates in Science and Engineering and the provision of post entry support to these students. The Access Office also delivers two study skills modules. The specific responsibilities are as follows:

Student recruitment, including advertising, interviews and selection;
Providing Co-ordinator with relevant student data;
Gathering information on Fee Status/BTEA/profiles of new students;
Managing the budget for the course;
Post-entry Support;
Provision of academic skills tutors;
Authorising tutor payment sheets;
Quality and delivery of Study Skills Modules;
Signing off on Marks & Standards of Study Skills Modules;
Signing off on Module Descriptors of Study Skills Modules;
Monitoring Attendance on Study Skills Modules;
Authorising and facilitating Study Skills module results onto system;
Attendance at Examination Boards and notifying the Dean of any circumstances concerning a student which may need to be considered;
Generating and Issuing of Certificates;
Reporting/disseminating information on NUI Certificates to University.

Appendix 12: Student-participant recommendations for FC development

More science

Although there was an acknowledgement of the attraction of broadening the curricular base by developing a suite of FCs beyond sciences, there was an equally broad agreement for maintaining a unique science-based programme which should reflect all the curricular areas represented in the Faculty.

‘A broader choice [within the sciences] would be a huge improvement’ (A).

There was a strong sense of the need for a broader introduction to the sciences with, particular reference being made to the need to reintroduce chemistry and biology.

The FC ‘should mirror the courses that are being taught in first year ... first year is the biggest struggle’ (U).

There was a strong consensus that students need to know more about the subjects that they are getting into (for better or worse) – particularly as most have being out of education for so long. There was some suggestion that non-science subjects could be trimmed to make way for more science subjects on the FC. Another suggestion was for the FC to run science-focused Leaving Certificate subjects as the core modules.

More Lab

Student participants also recommended that there needs to be a strong practical element through more exposure to Lab-based learning. There was an acknowledgment that there were pressure on Labs but the suggestion was made that staff should think creatively about timetabling these (eg. weekend or holiday workshops etc.).

Amend programme delivery

There was some suggestion, especially for those that struggle with being back in education, that the programme might be enhanced if it the content was deepened and delivered over a longer, possibly two-year period.

While acknowledging the importance of more social, face-to-face learning, there were some suggestions for more flexible or blended-learning opportunities to match the needs of mature students.

Socialisation and support

Some felt that a bit more work could be done to connect people through social events – although a few students made the point that mature students often struggle to hang around for anything except their timetabled classes. The FC, it was argued, is an intense course but there may be a support benefit for students who engage in more peer social activities.

Possibly, it was suggested, that the Mature Student Society could do more to involve FC students, and Science Faculty students in general, in their activities.

There were some suggestions that an identified link/support person would assist with support and communication issues. It was also suggested that Moodle could possibly be used for communicating some information about services. Some respondents recognised a value in using former FC students in orientation and support sessions.

Another suggestion was that there should be a formal exit-interview for completing and non-completing students.

Recruitment

One participant, who initially commenced a degree but switched to the FC, felt that the university recruitment process needed to be enhanced in order to match students with the right course at the right level.

Others felt that internet and social-media sites could be used more extensively to help market the FC programme.

Appendix 13: Staff-participant recommendations for FC development

Clear articulation of Cert's purpose and value

Some suggestions that the FC needs to have a clearly articulated rationale and sense of purpose which is mapped to university and national strategic initiatives.

There was a suggestion that the programme could be the responsibility of a Steering Committee which would have broad representation and which might bring a new energy and focus to this programme. This would, it was suggested, help the programme strategically.

Celebrating the programme achievements

More opportunities to celebrate success of programme and graduates should be explored.

Some of the stories of success from FC students who progressed into successful academic and vocational careers could be used to help raise the profile and celebrate the success of the programme and, by extension, the broader strategic Access goals of the university.

The programme must be supported by a strong recruitment/awareness campaign.

Curricular broadening and planning

There is a need for a broader, university-wide FC programme to introduce students to all the university has to offer. There may be the case for a broad programme with common elements and opportunities for specialism within that.

A few staff participants pointed to a need for consistency in terms of FC tutors.

However, there is a need for the Science and Engineering strand to maintain its Faculty-focus.

Many staff-participants felt that they would welcome a return of biology and chemistry to give students a broader sense of what is available at the sciences.

There was a suggestion that the FC should utilise existing resources such as the possibilities presented by the Leaving Cert Lab workshops at the beginning of January.

Part of a curricular review would also need to look at the degree to which the current programme is responsive to current needs, is academically rigorous, and is preparing students well for the next academic steps.

A curriculum review would also need, according to a couple of staff participants, need to look at the credit weightings across the FC.

A number of staff participants felt that some work could be done in creating more curricular coherence and progression across the FC.

The programme needs to be regarded, by applications, students, and departmental staff, as having academic value suitable for progression to any of the affiliated programmes.

Position the FC programme into core work of the university

Similar institutional and formal expressions of clarity are needed in relation to the programme's position within university structures and departments.

Locating curricular responsibility within the Science Faculty is important in promoting the value of the programme.

The FC also needs to be integrated, as with any other academic programme, into other aspects of institutional structures and processes (eg. exams, admissions).

There may also be a role for the Dean of Teaching and Learning in development of programme, or similar programmes, into the future. It needs more clear sense of strategy and policy in order to evolve. It is important that key staff and departments are integrated and named explicitly as part of that process (Access, admissions, exams, T&L)

Strengthening and recognition of roles and responsibilities – structures and communication

The FC needs to be run as a partnership based on good institutional relationships.

A number of participants felt strongly that the FC needs to ensure that Coordinator continues to be based in an academic department.

A couple of staff participants made the point that there should be institutional recognition that FC coordinator responsibilities reflect 50% of a lectureship post.

The FC needs to be supported by systematic reporting to the university on outcomes and challenges to improve awareness and attract support.

A suggestion made in two staff interviews was that there needs to be some form of structure, which mirrors subject/departmental hierarchies to make it clear to Coordinator and tutors the lines of communication: where to go when there is a problem. The most obvious one would be something along the lines of: tutors->coordinator->Head of FC Programme>Dean of Science.

Alternative model

Part of a curricular review should also explore opportunities to deliver the programme in different ways: outreach, on campus, alternative venues.

Some staff participants felt that there should be consideration given to longer and more flexible Access pathway for students. This may be more realistic given the academic level required by students who have being out of education for some time. The Cert, then, may be seen as the last step in the Access process to a degree where knowledge of a longer learning experience is consolidated.

Some argued that the programme would benefit from stronger links to other sectors (Further Education, disability, community) to ensure that it is reflective of current needs.

Opportunities to combine this programme with other university-based programmes like the Return to Learning programme should be explored.

Collaboration with other colleges/providers to explore possibilities of developing mutually-recognised programmes should be explored.

The development of the programme should draw on the knowledge of existing expertise in Maynooth University – in particularly Depts of Applied Social Studies and Adult and Continuing Education, Teaching and Learning.

Continuing to facilitate Access

Access needs to be involved, at some level, in the future of FC to ensure that the programme remains true to its, original, widening participation agenda.

The cost to students of the programme needs to be made clear and the programme should be made as affordable as possible.

There needs to be clarity about the barriers for students accessing bridging/foundation programmes so that they can be addressed systematically.

This programme could be used to target specific underrepresented groups – travellers, students with disabilities etc.

There was a strong sense, from several staff-participants, that Maynooth University offers a foundation course in science and engineering to make up for the relative lack of provision in this area nationally.