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DIT and student retention

The retention of students and the enhancement of their educational experience must serve as one of the core principles of any institution charged with fulfilling a national and international role in providing full-time and part-time programmes in higher education. However, up to recently student retention was not in the consciousness of educators in Ireland to a degree sufficient for strategies and initiatives to be put in place to effect change and improve it. Over the last 25 to 30 years, tertiary education in Ireland has evolved and developed exponentially, paralleling extraordinary changes in our society. In the past, a solid Leaving Certificate result was a key to gainful employment, while attending third-level was an exception to the general rule. Today, a large number of students see the Leaving Certificate as a key to further education rather than an end in itself. Many now want to proceed to further education after secondary level, a fact reflected in the number of programmes offered to potential students. The universities and institutes of technology have provided the courses and developed multi-varied programmes to attract and provide appropriate qualifications for their students, in order for them to be able to seek and obtain gainful employment, increasingly at home but also abroad.

Many students are successful and gain enormously by passing through and qualifying at third level. However, in contrast, a sizable minority of students do not complete. Commentators will say that it will always be the case that students will 'drop out': in the past, many would have experienced the clichéd first-day instruction by a lecturer to look right and left at their fellow-students and take note that, of the three, one will not be attending next year. This culture allowed for poor retention levels and was accepted by educators as a normal filtering process. It was not that the institutions did not want the students to complete; it was more that this was an accepted process.

A dawning

Until quite recently, little research was carried out into student retention in higher education. There are two possible reasons for this. First, non-completion might have been considered to be due to factors beyond the control of colleges. In particular, student motivations and expectations are difficult to influence. Thus, research would have been of little value since little could have been done to influence or address non-completion (Martinez, 1995). Second, the attitude prevailed that non-completion was to be expected, and might as well be accepted as a fact of life; indeed college enrolment practices were often based on the assumption that large numbers would drop out early in their course (McGivney, 1996). In the UK these assumptions were being questioned by the mid nineties, as the need for increased efficiency was giving rise to concern about levels of non-completion (Kenwright, 1997).

In the Irish context, a report entitled *Non-completion in higher education: a study of first year students in three institutes of technology* was issued in 1999 (Healy *et al*. 1999). The findings in this report, which related to three institutes that had become very concerned with their rates of non-completion, were very enlightening and provided the basis for further research. The report stated that there had been little or no research on this issue in Ireland heretofore, and not much more in Britain. It went on to say that 'there appears to be no single factor which explains non-completion in the I.T. sector. A combination of social, personal and institutional factors seem to contribute to early leaving and/or failure' (Healy *et al*. 1999).

Other than this report, nothing of any great significance was done about this matter within the Irish context until retention of students became in reality an economic and political issue. On the one hand, as the boom of the mid to late 1990s provided in economic terms full employment, industry was fearful of a future dearth in qualified people coming out of third-level to maintain economic growth. On the other hand, as government had invested heavily in third-level to provide this dynamic highly qualified work force for the burgeoning economy, questions were being asked as to why so many students were not completing college and filling these available jobs.

Original research in Ireland

In 1999 the Education Research Centre (ERC) was commissioned by the Higher Education Authority (HEA) to carry out research into student retention at university level. This resulted in a report by Mark Morgan, Rita Flanagan and Thomas Kellaghan issued in 2001 entitled *A study of non-completion in undergraduate university* (Morgan *et al.* 2001). The ERC was also commissioned by Council of Directors of Institutes of Technology to research non-completion in the institutes sector. The result was a comprehensive report by Eemer Eivers, Rita Flanagan and Mark Morgan entitled *Non-completion in institutes of technology: an investigation of preparation, attitudes and behaviours among first year students* (Eivers *et al.* 2002).

Uniquely, the Dublin Institute of Technology (DIT) obtained approval directly from the department of education and science to research and provide a report on non-completion in the institute. This was an opportunity for DIT to examine in detail the progression of a cohort of students on its own behalf. The idea of setting up a project to investigate retention issues had been germinated by Jill Barrett as a result of her experiences as a careers adviser in DIT. She was supported by Dr Susan Lindsay who, as head of the counselling service, also had first-hand knowledge of student withdrawal. Funding was arranged and in 1999 DIT had two researchers investigating non-completion issues.

The result was the production of two reports. The first, entitled *Student retention in the 1994 student cohort*, was compiled by Maura Finnegan and Mark Russell, and directed by both Jill Barrett and Susan Lindsay (Finnegan and Russell, 2000). The report is a quantitative study into the level of student withdrawal from DIT and how retention rates are affected by a number of different variables. Although similar methodologies were applied to this as in the ERC surveys, the benefit of having a uniquely dedicated piece of research for DIT provided immediate and more detailed data. The second report, a qualitative study entitled *Factors affecting student retention in the Dublin Institute of Technology* (Finnegan, 2000), investigated the reasons why students withdraw, and provided an insight into the issues facing students, educators, parents, agencies and society in attempting to tackle a very complex issue. Both reports provided DIT with the stark realities of what was actually happening to its students and pointed to the work within its power and capabilities that needed to be done to effect a change.

The DIT strategic plan

It was at this time that DIT had brought to fruition a process culminating in an extremely important document mapping the future direction of DIT. The Dublin Institute of Technology strategic plan, *A Vision for Development 2001–2015*, has as one of its seven objectives the theme of providing a 'multi-level, learner-centred environment' with a stated goal to 'respond flexibly, efficiently… to the needs of students'. Another objective is to embrace a 'supportive and caring ethos' which include in its goals such practical issues as to 'provide retention support for students…', and to 'develop an appropriate and effective mentor system'. The philosophical, educational and practical goals set out in the strategic plan reflect a greater degree of appreciation of DIT's need to be more sensitive to the changing demographic, educational and social construct that engage the modern student. Essentially the strategic plan has raised the bar on the issues of non-completion and retention of students.

The DIT reports and others which followed from the ERC on the Universities and ITs in 2001 and 2002 provided a lot of information but also left a lot more questions unanswered. More research needed to be carried out on specific issues, and strategies needed to be put in place to effect change, especially in programmes and courses that were experiencing severe withdrawal and non-completion of students. From the DIT perspective there was an immediate challenge: by virtue of its position as one of the biggest recruiters of students in the state (if not *the* biggest), with an extraordinary range of courses provided from certificate through the ladder system to doctorate-level, it was evident that too many first-year students were withdrawing or failing exams, particularly at the certificate and diploma levels. Research showed that 85% of the total number of students that failed to complete withdrew within or

during their first year. DIT recognised the need to continue research into specific retention issues and decided to appoint a retention officer to develop and prepare the initiatives and strategies to keep students on their courses. Since its establishment in September 2001, the retention office has looked at many aspects of the issues relating to student persistence, withdrawal, completion and non-completion.

The aim of the student retention office is to:

- research the issues and factors that influence student experience and retention
- support staff and students by translating research into practical programmes and initiatives
- inform institutional practice and management processes, and to support cultural change
- act as a resource and source of expertise for all staff undertaking retention-related initiatives and research

And, most importantly, to:

- improve retention figures in DIT by 3 points in 2 years, 6 points in 3 years and 15 points in 5 years

Because the idea of focusing on retention issues was still relatively new, it was important that priorities were established so that the major concerns from DIT's perspective were advocated and presented to staff.

Priorities and concerns

The first priority therefore was to raise the level of awareness of the importance of student retention as a core issue across the whole of DIT. Second, to concentrate limited resources and energies on the first-year full-time student cohort. Third, it was imperative to produce up-to-date accurate data on the persistence of the first-year cohort 2001–2002, and to follow that progression through each year. Fourth, and logically, to then follow each subsequent first-year cohort thereafter. Fifth, to implement specific initiatives based on research and support preparations for subject review. And, finally, to investigate best practices on retention initiatives through research, seminars and conferences.

By concentrating on these priorities during the first year of the project, a number of concerns came to light and are in need of addressing. First, the retention office spent a lot of time raising awareness and noticed that although members of staff express genuine concern about and interest in student retention, responsibility for it needs to be taken at programme and faculty level, with a co-ordinated approach put in place to tackle the issue. Second, the number of withdrawals in first year is too high and is a result of numerous factors such as those which can be catergorised under ‘information gap’, ‘skills gap’ and ‘mismatch expectations’. In 2001, of 2,939 registered, first-entrant, first-year students, 459 (16%) did not sit June exams. (An improvement is anticipated in the 2002–2003 cohort: results will be available in December 2003). Third, students are leaving without notification, and there is no real effective tracking system for students who leave. The lack of regular attendance roll calls mitigates against an early warning of a student at risk of leaving. The system retains student details although a student may have left in September and early October. This anomaly has improved since the introduction of the Banner registration system. A tracking system can have the effect of offering at-risk students a chance for appropriate support and promote a lower withdrawal figure.

Research demonstrates that students partaking in certificate and diploma courses who fail or withdraw are quite often overwhelmed academically. There is a skills gap between Leaving Certificate level and first-year requirements, which manifests early in the first term: 20% of

diploma/certificate students withdrew prior to June 2002**[year added in editorial process: is it correct?]** exams, in contrast to 11% of degree students; only 50% of diploma/certificate students passed sessional exams, in contrast to 63% of degree students. While across the faculties the number of withdrawals in degree courses varies between 10% and 13%, at diploma/certificate it varies from 11% to 28%. The technical subjects which students must take as part of their courses are the stumbling block for most of these.

Many students who withdraw are citing wrong course choice as the reason. Contrary to popular perception, research to date indicates that most students entering DIT are on their first to third choice. There is evidently an information gap between what is being offered and students' perception of what is being offered.

Initiatives

The retention office has had to take a look at the big picture and involve itself in programmes and services that have been addressing the issues involved. It is evident that, for retention initiatives to take hold and be embedded in the institution, an overall long-term programme needs to be put in place. Off-the-shelf solutions rarely work, so it is imperative that a tailored programme of initiatives be introduced in each faculty, and indeed in each programme. These strategies should be generated by the course providers, the faculty management and the institution's strategic planners, in consultation with the student retention office and other relevant parties.

There also needs to be ongoing reviews and strategy-development in the area of sourcing and recruiting students. A holistic approach will help to make students more aware of course requirements. Validation committees and programme managers should be sufficiently flexible to consider introducing interviewing, psychometric testing, skills-gap testing, understanding of admissions criteria, and bridging courses. To have students connect with their fellow students, their chosen programme and the institute itself, the validation committees and programme managers need to develop and continually improve induction/orientation, peer mentoring, student guides and academic mentoring initiatives. It is also vital that support systems are in place for students. Research makes it is clear that DIT has been at the forefront in providing a positive support service, with many services in place such as counselling, chaplaincy, student services, student union, access service, disability service, clubs and societies.

However, the key to improving the student experience – which will logically improve retention rates – lies in providing the resources and dynamic curricula redesign which will enable incoming students to develop as active learners. There is a need to have an integrated needs-basis study and key-skills module embedded in all programmes from day one, and delivered by the people who are providing the course content. Such skills, which are lifelong skills, are the backbone to a student's motivation to persist and retain intrinsically the wish to continue to learn.

This transformation of the student will prevail only if the framework and culture to transform the institution is put in place. Staff-development programmes should be provided which initiate curricula redesign, introduce solid guidance structures and assessment practice, and introduce academic mentoring. Again much of this is in place or is in the process of being developed or reviewed, thereby providing a template for cultural change. With the development of the Learning and Teaching Centre, the advent of modularisation and the provision of Learning Technology as examples of institutional transformation, DIT has placed student retention in the forefront of its objectives. Whether this is appreciated universally is a moot point.

The retention office has conducted numerous studies to inform empirically on anecdotal theories that had heretofore provided opinion on retention issues. These reports, along with the reports of 2000, have formed the basis for its identified aims priorities and initiatives. (All of these reports are available on the DIT website and can be accessed by linking to http://www.dit.ie/)

Here is a summary of reports completed:

Issued 2001

- student withdrawal in DT231: a specific report into the withdrawal of engineering certificate students (Russell, 2001)
- course handbook students guide: A generic guide for staff to adopt in providing a handbook for students (Russell, 2001)
- insights into student retention: A study of retention issues that need to be addressed for a first-year programme (Costello *et al*., 2001)

Issued in 2002

- annual retention figures: an overall, faculty and programme based report on the persistence of the 2001-2002 first year full-time cohort (Costello *et al*., 2002)
- numerical skills and retention rates amongst first-year students in the faculty of engineering (Costello *et al*., 2002)
- course-specific reports (DT402 and FT351) (Costello *et al*., 2002)
- first-year survey 2001–2002: a report on each faculty and 43 programmes on students at risk (Russell *et al*., 2001–2002)

Issued in 2003

- retention rates amongst first year students in the faculty of science (Costello *et al*., 2003)
- preliminary findings on withdrawal students 2002–2003 cohort (Costello, 2003)
- retention rates amongst first year students in the faculty of tourism and food (Costello *et al*., 2003)

Papers

- survival tips for first years entering third level (Costello, 2001)
- a practical guide to student guides at induction (Costello, 2002)
- proposals for peer mentoring in faculty of engineering (Costello **[Year?]**)
- first day and ice breaker suggestions **[author/date?]**

Interventions

Various interventions and strategies have been put in place specifically to address retention issues, but it is too early to judge their success. Many of the interventions will be the subject of specific reports and reviews in due course, while others have been referred to already. It should be noted that none of these interventions could have got off the ground without the assistance of members of staff and students who are striving to effect change. The very fact that so many are making efforts to initiate this change in approach has the very positive effect of students experiencing commitment, connection and involvement. The following are some of the initiative that have occurred, are ongoing, or are about to happen:

- co-ordinating peer-mentoring programme in engineering
- tracking and interviewing at-risk students at course level across the faculties as follows: business (DT315, FT351), tourism and food (DT402), engineering (FT228 and DT231), applied arts (FT604), science (FT223, DT273), built environment (DT114, DT171)
- tracking of retention rates before and after interventions
- advising and assisting faculties and course co-ordinators on specific issues
- working with faculties, schools and support services
- promoting induction and orientation programmes across the institute

- introducing skills assessments and providing support for study-skills workshops
- developing peer-tutoring workshops
- raising awareness of retention through teaching and learning initiatives
- developing new initiatives through e-learning and distance learning
- annual first-year and induction feedback survey now on-line via WebCT
- promoting and developing on-line study skills seminar through WebCT
- collaborating with other institutions on mutual issues, including UCD, TCD, UL
- forging partnerships with faculties to develop initiatives on IT programmes e.g. engineering, maths
- providing support and feedback on HEA retention funding initiative on engineering programme FT008

Going forward

As these issues are dealt with, other matters arise that are obviously very important. This means that the retention office's priorities must remain sufficiently flexible to adjust to new and important challenges. While certain issues need to be addressed in the coming year, a consistency of effort on primary concerns must also be maintained. There is a need to continue researching issues and recording student persistence and retention across the whole institute: retention reports will be issued on the faculty of applied arts in December 2003, the faculty of business in March 2004, and the faculty of built environment in May 2004. There will be continued collaboration with other units within DIT in the implementation of its strategic plan. A DIT policy document on retention will be presented to the Directorate and Academic Council in December 2003. It is envisaged that this policy will be embedded in the fabric of DIT as a priority concern for all course-validation committees. As a priority, the peer mentoring programme in engineering is being action researched to develop a template for introduction institute-wide.

Other aims include:

- advocate and introduce a maths support centre for science and engineering with other academic support centres to follow for other faculties
- appoint a researcher to investigate student retention issues, quantitatively and qualitatively, for the part-time cohort of DIT (this new appointment will be made by January 2004)
- develop deeper liaison with secondary schools' career guidance in collaboration with the DIT admissions office and faculties
- introduce effective systems for tracking students across all areas of DIT: dialogue with all faculty administrators and staff has commenced, seeking to maximise the Banner system and other systems more effectively to identify at-risk students earlier
- develop an updated, integrated website: all the reports completed by the retention office will be available online for the new academic year

As DIT embraces modularisation, e-learning and distance learning, it is important that these are reviewed from a retention perspective. It is also important that postgraduate and mature-student-retention issues are looked at in the context of the developing demographic of future incoming students. By continuing to provide empirical quantitative reports and qualitative strategies on student persistence, the student retention office can support the institute in fulfilling a vital aspect of its strategic plan.

It is interesting how a project takes on a life of its own and becomes a part of the very fabric of an organisation. In this instance it is the need for data and strategies on the retention of students that drives the student retention office. With developments regarding funding at third-level and influences from Ireland and abroad regarding how best to finance viable and interesting programmes that are both sustainable and relevant, the recruitment and retention of students has moved swiftly from being a laudable aspiration to a very necessary and vital requirement.