

Effective Student Motivation Commences with Resolving 'Dissatisfiers'.

Dr Ann Prescott

School of Contemporary Sciences
University of Abertay
Bell Street
Dundee
DD1 1HG

Mr Edward Simpson

School of Contemporary Sciences
University of Abertay
Bell Street
Dundee
DD1 1HG

Abstract

The evolution in students' expectations based on Maslow's theory of human motivation shows a transition from expectations having an effect upon motivation towards those providing a satisfactory experience. Maslow's argument was that once the lower level needs such as physiological and safety needs are met other higher needs emerge. In the context of student motivation, once environmental conditions are satisfied, the individual becomes dominated by the unsatisfied needs and other hygiene factors related to their studies dominate their experience and expectations. However, the environmental conditions must be satisfied before progress to other levels will succeed. Failure to address these basic issues at the commencement of a student's course of study can lead to absence and the subsequent lack of academic integration is a significant contributor to withdrawal.

Keywords: Motivation; hygiene factors; absence; withdrawal; retention

Introduction

Withdrawal and non-completion are arguably a natural part of the Higher Education process in selecting academic capability (Laden, et al. 2000). A very strong counter argument is that institutions with persistently high student withdrawal rates might be considered as “permanently failing” (Meyer, M.W. and Zucker, L.G., 1989) and that the culture of high student withdrawal and loss is unacceptable. Universities are under pressure to improve retention strategies (House of Commons, 2001; Martinez, P., 2001; Lloyd, P. and Willmot, L., 2002; Smith, P.J. and Naylor, R.A., 2001). Further to this, the Quality Assurance Agency (QAA) and SHEFC (through SHERF) have a specific interest in student progression rates. Universities do not want to be seen by the public and prospective students as institutions where failure to complete a course is considered acceptable (Connor, H. et al., 2001).

The ability to measure success of the student experience based on completion rates has been the subject of various studies and investigations since Abbott’s study in 1972 into social class. The lack of meaningful progress in achieving ‘satisfactory’ progression, particularly in economic terms (Cowie, 2000) and poor completion rates raises questions about the efficacy of strategies used by management and the exact nature of problems they are implemented to resolve. Studies have covered:

- The type of institution: Entwistle, N.J., 1972:59 – 70.
- Modelling withdrawal: Tinto’s model (1975 and subsequent updates/publications 1982, 1987, 1993 and 1997).
- Absence: Baruah, A. and Walkley, P. 1997; Martinez, P., 1997; Middleton, W., 2001; Simpson 2001.
- Student counselling: Rickenson, B., 1998.
- The financial hardship, diverse population and reduced institutional support for students: HEFCE, 1997.
- The difficulty of establishing meaningful data on student withdrawal: Ozga, J. and Sukhandan, L., 1998.
- Lack of clear data on the signals for student non-completion: Yorke, M., 1999.
- Use of technology and automated tracking: Middleton, W., 2001.
- Academic integration: Mortiboys, A. 2002; Orr, S. and Blythman, M. 2002; Jones, P. 2002.

Despite the contribution these publications have made to our understanding of the factors influencing students’ decision to withdraw from their courses any practical solutions to the problem remain elusive. It was with the aim of coming to terms with this practical aspect that the present work was undertaken. Our starting point was based on an awareness that, with the encouragement of organisations such as the Learning Teaching Support Network and the Institute for Learning and Teaching, staff across the HE sector have employed multitudinous and varied methods aimed at improving their students’ motivation towards learning. Comprehensions of the factors that influence such motivation remain strongly influenced by Maslow’s “Hierarchy of Needs”, introduced half a century ago. The work of his contemporary, Herzberg, on “hygiene factors” or “dissatisfiers” has received less attention and it is his ideas that prompted the present study. We argue that in the early stages of a student’s experience it is essential to address the dissatisfiers if the student is not to absent themselves and subsequently put themselves at risk of withdrawal, by which stage motivational strategies are ineffective. The aim of this paper is achieved through the following objectives:

- Literature review;

- Data collection and analysis covering a period of three years collecting both quantitative data, through withdrawal statistics, and qualitative data through interviews;
- Discussion of findings.

Background and literature review

Explanatory models of attrition, such as those proposed by Tinto (1975), emphasise student integration although the student profiles he used may be outdated (Kelly, 1999). His model has also been challenged by Brunsdan et al (2000) for over reliance on generic factors and by Ozga and Sukhandan (1998) for insufficient attention to context, hence incapable of adapting to increasingly diverse student populations. Higher Education retention rates differ across a wide range of factors including age of students (Ozga and Sukhandan, 1998; Yorke, 2000; Hall, 2001 and Morgan et al 2001); subject studied (Johnes, 1990; Woodley et al 1992; Yorke, 1998; Hall, 2001 and Morgan et al., 2001); socio-economic background (Raab, 1998; Hall, 2001); institution (HEFCE, 1999; Morgan et al 2001); qualifications on entry (HEFCE, 1999; Morgan et al., 2001); length of time on course (Yorke, 2000); mode of study (Benn, 1995); and job prospects at the time of withdrawal (Rome and Lewins, 1984). Braxton, J. M. and Lien, L. A. (2000) argue that academic integration is a significant factor affecting student progression. Previous research concluded that, where the significant population of students commute, academic integration is more important for progression than social integration (Pascarella, E.T., Duby, P.B. and Iverson, B.K., 1983). In addition, we have reported that student participation, or “social inclusion”, is a key factor in ensuring academic success (Simpson and Prescott, 2003). Among these diverse opinions there is the general consensus that high levels of motivation have a substantial influence in overcoming the potential problems faced by students at risk of withdrawal (Armstrong, 1996).

In order to design an appropriate management strategy to address the problem it is necessary to identify the problem to be addressed. With respect to withdrawal Yorke (2000) identified six main factors that are influential in students’ decisions to withdraw, but these are complex and operate at individual student, institutional, and supra-institutional levels:

- Poor quality of student experience;
- Inability to cope with the demands of the programme;
- Unhappiness with the social environment;
- Wrong choice of programme;
- Matters related to financial need;
- Dissatisfaction with aspects of institutional provision.

Few students can generally give a single reason for withdrawal (Hall, 2001). Furthermore, it is acknowledged by Foster et al. (2002) that students may externalise their reasons, blaming the institution and its provision rather than their own inability to cope in an academic environment (Johnston, 2001). Follow-up surveys (Foster et al. 2002) show that ex-students often give different reasons for their withdrawal after a lapse of time.

Method of investigation

One of the aims of this study implies in its requirements a detailed exploratory investigation to answer questions as to why retention and progression are the way they are in a set context. It is accepted that if exploratory research is undertaken case study is the most common method (Gomm, R., Hammersley, M. and Foster, P., 2000), and particularly relevant where complex behavioural problems are involved (Finn et al., 2000; Gillham, B., 2000).

Given these parameters and characteristics for the research problem the research method and adopted was a single exploratory case study. The strengths of a case study approach as a strategy to enable a solution to the problem to be achieved are (adapted from Finn, M. et al., 2000):

- Capacity to explore social processes as they unfold in an organisation
- Understand social processes in their organisational context
- Exploring processes or behaviour that is little understood
- Explore atypical processes

This article presents the results of unstructured interviews with 687 students over the study period, representing approximately 60% of the School's first year student population, (324 during semester 1 for the three-year period: 111 students on Diploma programmes and 213 students on BSc (Hons) programmes; 363 during semester 2 for the three-year period: 81 students on Diploma programmes and 282 students on BSc (Hons) programmes.) The authors also analysed the data for each of the 199 withdrawal questionnaires over the study period and carried out semi-structured interviews with 84 students that attended withdrawal interviews. In addition, a short questionnaire with closed questions was used by the authors to investigate how students perceive and measure their time management related to completing coursework assessments.

Statistical analysis and patterns of withdrawal

From a quantitative study of withdrawals in 2000/1 and 2001/2 for all years of study we found that withdrawals were concentrated at two key points through the academic year, in the first weeks of study and just before and just after Christmas. The percentage of male students withdrawing from their courses was marginally higher than their female counterparts. The withdrawal form that is used throughout the university offers a choice of not six but seventeen possible reasons for withdrawal. Overall reasons for withdrawal when investigated related to poor, spasmodic, or non-attendance with personal reasons the second major reason. There was an unexpected gender bias in that when the reasons given for male and female students were examined separately the male students were more likely to withdraw after, or as a result of, a period of poor attendance. Male students constituted 51% of the population in the University during the study, but 61% of withdrawn students over the same period were male.

The average attendance during the 13 teaching weeks for first year students registered for chemistry, biological sciences and engineering modules monitored over the weeks of the University calendar are shown in Figures 1 and 2. The figures are based on data collected during the session 2001/2 but a similar pattern had been observed during the previous session. After the initial experience at university student attendance fell from around 85 % to below 70 % in the first weeks of the course. At no point did the attendance figures reach 100 %. The brief rise in the third week coincides with the positive intervention as a result of attendance monitoring. Despite continuing the monitoring and intervention strategy, attendance tended to fall, dropping to around 60 % when the

students returned for one week of “revision” before two weeks were given over to examinations. After a mid-semester break of one week, semester 2 commenced with overall attendances of around 40 % across all modules. The body of students who were persistently absent from classes during the first semester appeared to double during the second semester. Once again the trend was towards falling attendances and the decline was particularly marked in the period before the second set of examinations.

<Figure 1 here>

<Figure 2 here>

Do attendance figures matter? The most extreme example of absenteeism is when a student voluntarily withdraws from the course. One of the successes of monitoring attendance is that students who are at risk can be identified earlier in their course than would otherwise be the case.

Withdrawals in the first year of a course tend to be higher relative to any of the subsequent years as a proportion of students in that year. Investigation of the Year 1 cases indicated that 46% of first year students were identified as being at risk through poor attendance (17%) or non-attendance (29%). In the cases resulting in withdrawal based on non-attendance the student did not respond to requests for progress interviews. No less than three separate requests to discuss his/her absence from classes with one of the Advisors of Studies, the student’s Personal Tutor or the appropriate lecturers were made. While the percentage of withdrawals was highest for students in their first year, we were initially surprised to observe that within that year the percentage of student withdrawals from the portfolio of courses offered by the School varied significantly between certain groups of course. The order of decreasing rates of withdrawal was as follows:

Dip HE courses	>>	Degree courses in traditional subject areas	>	Degree courses in non-traditional subject areas
----------------	----	---	---	---

In later years of the courses most of the potential withdrawals were again identifiable by significant periods of absence. On the whole students in later years responded more positively to efforts to contact them and the reasons for withdrawal were usually due to changes in personal circumstances.

< Figure 3 here>

We demonstrated that the link between performance and attendance held for modules over a wide range of disciplines. The correlation based on the data analysed by the authors for semester 1 was found to be positive with $r = 0.74$; for semester 2 $r = 0.02$ with the overall for the session being $r = 0.53$.

Times taken over coursework

From interviews with students it was clear that time management was an important factor contributing to their problems over attendance. With this in mind we asked all students enrolled on science and engineering courses to classify the type of assignments they had been required to undertake and the time that they had spent over them. The

replies were anonymous. This investigation was carried out during the second semester of the 2002 /3 session.

About two thirds of first year students completed their course works, problems, and labs within a spread of 1 – 5 hours for any given piece of work. Reports, essays, and for some modules, labs took 10 – 40 hours to complete but again the times taken by the majority were fairly consistent. Overall a relative standard deviation of at least 20 % was found to operate on the times taken for any single assessment. At this stage we do not know whether this represents a spread of abilities or differences in rates of learning or, most probably, a mixture of these and other factors.

We also discovered that for students in their first year there is a clear bipolar distribution in the times they take to complete their assignments. Up to a third of first year students took three to four times longer than the later years over any piece of work. They were also more likely to report the time in “days” rather than hours. The perception of what constitutes a day’s work varied from one hour (or less) to four hours, a ‘day’ was typically measured in time left after classes.

Coursework submission dates were also monitored and students perceived as being in potential difficulty were contacted as early as possible. The monitoring system confirmed that there is a link between poor attendance and low submission rates.

Student Interviews

An essential part of the monitoring process was inviting poor attendees for interview. Inevitably we found that we were dealing with a hard core of persistent absentees, some of whom eventually withdrew from their courses, and a smaller number of students with relatively short term problems. These were unstructured interviews permitting students in an open and free forum to provide information for the university to help improve their experience where possible. Many comments were also repeated at withdrawal interviews when students attended where we had been too late to put in place a strategy to enable the student to get back on track with their studies, or deal better with their problems. The interviews, carried out with first year students over a three-year period, provided striking evidence of specific student anxieties:

- About timetabling and room allocations;
- About their competence in using the library and IT facilities;
- About their ability to undertake early assignments, a feeling subsequently intensified by feedback which was perceived as brief, tardy or negative. This has been noted elsewhere as a common problem, for example Young, (2000);
- About meeting coursework deadlines; and
- About the time taken to complete course work assignments.

Discussion

The evolution of students’ expectations in an academic environment is shown in Figure 4, produced as a result of our research and adapted from Maslow’s triangle. In the context of the academic environment the “learning motivators” have attracted more attention than the apparently more mundane “hygiene factors”. Maslow’s argument was that once the lower-level needs such as physiological and safety needs are met other higher needs emerge. In the context of student retention and motivation, once

environmental conditions are satisfied, the individual becomes dominated by the unsatisfied needs and other hygiene factors related to their studies dominate their experience and expectations. However, the environmental conditions must be satisfied before progress to other levels will succeed.

<Figure 4 here>

One of the principles put forward by Herzberg is that, whereas people may be motivated by their relationship to the tasks they perform, they may also become dissatisfied if certain criteria are not met in either the context or the environment in which their tasks are carried out. These criteria are called “hygiene factors” or “dissatisfiers” and relate directly to Maslow’s basic requirements of “physiological” and “safety” needs. Herzberg observed that, “The opposite of job satisfaction is not job dissatisfaction but no job satisfaction; and similarly the opposite of job dissatisfaction is not job satisfaction”. In a classic study, Lawler and Porter (1967) investigated the relationship between job satisfaction and productivity for factory workers. They discovered a strong correlation between job satisfaction and both absenteeism and turnover. In contrast, the correlation between job satisfaction and productivity was exceptionally weak. This led to the proposal that improved productivity should be recognised and rewarded by better working conditions.

The best indication that a student is not satisfied is probably when s/he stops attending a succession of classes. All too often by that stage the situation is irretrievable and the student drops out of a course. Accordingly the use of attendance monitoring permits a study of the issues that affect student progress, retention, and withdrawal. The outcome of our investigation has enabled us to identify some of the basic hygiene factors that must be fulfilled for the students to make satisfactory progress. The factors we identified are listed below. Where we have been able to address the issues, we have observed positive results. However, in common with many institutions, the move towards central administration means that not all of them are within our control.

Late enrolment on the course was cited by students, when interviewed, as a reason making it difficult to integrate with the rest of the class. During induction week students are given general information, for example about library and IT resources as well as specific information related to their course. They also become accustomed to the lay out of the buildings and the location of classrooms, laboratories, and notice boards. Although the University can provide students who miss the induction week with the factual information that students enrolling late need, these students often have less confidence than their peers in negotiating the learning environment and are more at risk of failing to attend classes. Students, when asked about difficulties in relation to their late enrolment provided comments such as, “I didn’t know anybody in the lab group to work with - I felt left out after that, they already knew each other”, which is typical of many who enrol late (Simpson and Prescott, 2003).

Lack of information regarding timetables and the location of classes and the allocation of tutorial groups caused more difficulties than one would expect. Traditionally this information, including unavoidable changes, is posted on notice boards but this system requires the students to check the boards regularly. One student observed of one notice board, “There is so much stuff on that board I can’t see when something new goes up,” readily resolved by reminding the Programme Tutor to resume weekly checks to remove dated material. “Turning up” in the wrong location or at the wrong time also causes resentment and dissatisfaction, which can lead to recurrent problems with

attendance. Students, when talking about timetable problems cited situations that they felt were beyond their control such as, "The timetable I got was wrong because the lecturer had changed a class time but it wasn't on my timetable and nobody told me". In fact, in most cases, the students had failed to attend earlier classes and had not sought to find out what they had missed from either their peers or the lecturer. Again this pattern of behaviour was often associated with students who had enrolled late. However, there were also occasions where timetabling of lab groups and tutorial groups confused some students with respect to which class they ought to have been attending. One particular comment which reflected a number of students was, "I thought I was in Group B so didn't go to Group C's labs, besides, why are the groups different in different subjects, why can't they all be the same?" This comment raises issues such as expectation of standard groups and assumptions about timetables for the whole academic year.

Timetable clashes with 'personal arrangements' indicated that students have individual methods of prioritising their education. First year students generally take up paid employment during the first semester if they have not already done so before the start of the session. A large number of modules operate "block" timetables so that there is more chance of the students' having a "free" morning or afternoon. This raises the problem that if a student misses one of the allotted periods through sickness or any change in personal circumstances he/she has also missed a substantial amount of work. The weaker students are frequently discouraged from returning to their studies by what they perceive as an overwhelming backlog of work. Some students manage to arrange work around classes, but need sufficient warning to do so. To cite one example, a student whose attendance and performance was normally impeccable was interviewed with respect to uncharacteristic absence. It transpired that his employer, whilst very understanding of his situation and willing to accommodate his requests for working hours, could only make changes on a four-week basis due to the rota system in place. Therefore, a very good student was placed in a difficult position due to something over which he had little control. Significantly paid employment scored over academic work. The adoption of electronic timetables means that information is now available much earlier. An unexpected hazard is that it can also be updated daily. The level of certainty is limited therefore with respect to longer term planning. Even when a student gets the timetable as much as 4 weeks or more before the semester, it remains 'provisional' until any problems over accommodation or resources have been resolved.

Dates for the submission of assessments were considered a problem where they result in up to three submissions in one week: a fact commented upon by some students in Course Executive meetings as well as in personal interviews. In an attempt to address this issue at the start of the session the students are given a "MAP" (Module Assessment Profile) for each module, which includes the types of assessment and the dates on which they will be issued and collected. With very few exceptions the MAP gives maximum of two "due dates" per week across all modules. The hope was that the students would plan their work load with the same care with which the staff set the "due" dates. Attendance patterns and interviews showed that this approach had limited success. Students with poor time management tried to complete a coursework at the last possible moment. Reasons for not managing their time included, "It is not my fault three courseworks were due that week, how can you expect anybody to do three in one week?" However, interviewees found explaining how they had managed their time difficult. Under the modular scheme some subjects are examined at the end of the appropriate semester but all are assessed continuously by means of coursework. In the first year assessments are usually written assignments, oral presentations, class tests, practical exercises or a combination of these.. It is apparent that students will miss classes in one module in order to meet the

deadline for submission of course work in another, compounding the problem of poor time management. The causes of this approach to learning require further study, but it would appear that males are more prone to this problem than females.

The University calendar is the framework within which we have to work. With modules came semesters and the administrative constraints arising from two sets of main diet examinations. These have had two adverse effects on student attendance figures. There is a gap of at least four weeks without class contact over the Christmas period during which time, particularly for the weaker of the first year students, the demands of paid employment, family commitments or the relief from study assume ascendancy over academic work. Re-starting after this interruption becomes more difficult due to the break in routine. This issue was the subject of an internal review, the outcome of which indicates that Year 1 progression rates may be improved and can be facilitated by a change to the university calendar (Miller et al., 2002). The university has recognised this problem and has taken the opportunity to redesign a new calendar as part of the current review of the modular scheme.

Assessment strategy can be something that students do not grasp readily: even with the support available, some students are reluctant to approach staff or use helpful resources. Students in their first year can fail to complete course work simply because they do not understand what is required of them. A couple of recurrent statements arose, "I didn't want to ask 'Lecturer X' because I didn't want to look stupid, everyone else seemed to know what to do", and worse, "Well I spoke to Y [a friend] and they told me to do it this way." This caused some concern as the university takes pride in its 'open door' philosophy and actively encourages students to ask staff for help, trusting a peer is suitable when they know what they are doing, but when there is a case of misinterpretation by the first student, the problem is compounded.

Social belonging and academic integration

Once the basic organisational requirements are met and students can operate confidently in the academic environment the next step towards motivation are the social factors variously described as academic and/or social integration. We were first alerted to these ourselves by the observation that students on Dip HE courses are consistently more likely to withdraw from their courses than students recruited on to the more popular courses. The only clear distinction in the way the two groups are taught is that first year students on Dip HE courses are more likely to be subsumed into larger classes and are thus far less likely to interact with their peers either in lectures or less formally in practical sessions and tutorials. The sole exception to this was a module taken by students on a number of different courses in which the modular tutor had deliberately set out to give each group an identity. The pass rate for this module was significantly above average over the years of this study.

Monitoring the time taken over assignments and the degree to which students kept to the "due dates" indicated that there is a wide spread in the times taken over assignments by the majority of students and that that the group of students whom we would normally identify as at risk in terms of their attendance and performance includes students whose habit of study differs markedly from that of their peers. We tentatively classify them as "individual learners", who, by accident or design, are unlikely to integrate well with their peers. Furthermore, as time is at a premium for this group of students, the traditional methods of coping with the perceived poor performance of by way of extra teaching and

specialist modules aimed at improving study skills are doomed to failure. This is in complete agreement with what we have observed in practice, much to the frustration of the staff who have invested time and effort in attempts to help so called “slow learners”.

Conclusions

Monitoring attendance has proved an effective means of identifying and assisting students at risk, but is reactive, not proactive. However, with the at-risk students being identified at interviews and by cross-referencing their academic results, action can be taken immediately upon the first instances of absence, ideally within the same week.

Collating and inspecting attendance figures enables students who start to voluntarily withdraw from their courses to be speedily identified. Those who have simply made a ‘wrong choice’ can be given timeous advice and helped to find an appropriate direction rapidly. This helps the student and ensures that the University’s reputation for student support is not adversely affected.

Patterns of attendance were common to all the classes monitored and relate to external factors, notably the University calendar, and internal factors regarding course administration. Both of these are being addressed in changes to the revised modular scheme by the University.

Students study at different rates, the expectation that all students can achieve the same level of ability in large classes without a significant amount of individual attention is leading to some students failing to achieve satisfactory academic levels for progression. It has to be accepted that in large classes weaker students can end up having less support than they need, even although there will be considerable support on offer (including extra tutorials). Many students are unwilling to resolve this by not integrating with peers, by absenting themselves or ignoring their deficiencies.

References

Armstrong, A. (1996) Access and Stakeholder Culture: The Issue of Student Retention and Completion. **Journal of Access Studies**, 11, pp. 189-200.

Barwuah, A. and Walkley, P. (1997) **Monitoring and student attendance** (FEDA)

Benn, R. (1995) Strangers in a Strange Land: Participation and Withdrawals on University Certificates. **Studies in the Education of Adults**, 27, (2), pp. 187-199.

Braxton, J. M. and Lien, L. A. (2000) The viability of academic integration as a central construct, in: J. M. Braxton (Eds) **Reworking the Student Departure Puzzle** (Nashville, Vanderbilt University Press)

Brunsdon, V., et al. (2000) Why do HE Students Drop Out? A Test of Tinto’s Model, **Journal of Further and Higher Education**, 24, (3), pp. 301-310.

Connor, H., et al. (2001) **The Right Choice? A Follow-up to Making the Right Choice** (London, Universities UK)

- Cowie, E. (2002) Dropouts from Scots universities cost £20m a year. **The Sunday Times News** [Section1] p. 8.
- Entwhistle, N. J. (1972) Students and their academic performance in different types of institution, in: H. J. Butcher and E. Rudd, (Eds) **Contemporary Problems in Higher Education: an account of research** (London: McGraw Hill)
- Finn, M. et al (2000) **Tourism and Leisure Research Methods** (Harlow, Pearson Education)
- Foster, J., et al. (2002) Surviving First Year, Lifelong Learning Research Group; **Occasional Papers Series: Number 1, July** (Paisley, University of Paisley)
- Gillham, B. (2000) **Case Study Research Methods** (London, Continuum)
- Gomm, R., Hammersley, M. and Foster, P. (Eds) (2000) **Case Study Method** (London, Sage Publications Ltd)
- Hall, J. (2001) Retention and Wastage in FE and HE, in: Foster, J. et al., **Surviving First Year, Lifelong Learning Research Group** (Paisley, University of Paisley)
- HEFCE (Higher Education Funding Council for England) (1997) **Undergraduate Non-completion in Higher Education in England Ref 97/29**
- Herzberg, F. (1976) 'One more time: how do you motivate employees?', in: W. R. Nord (Ed) **Concepts and Controversy in Organization Behaviour** (Santa Monica, Goodyear)
- House of Commons (2001) **Higher Education: Student Retention Sixth Report** (London, Select Committee on Education and Employment)
- Johnes, J. (1990) Determinants of Student Wastage in Higher Education **Studies in Higher Education**, 15, (1), pp. 87-99.
- Johnston, V. (2001) Survey of non-returning students, in: Foster, J. et al., **Surviving First Year, Lifelong Learning Research Group** (Paisley, University of Paisley)
- Jones, P. (2002) Improved academic and pastoral support: The University of Greenwich explores a possible way forward **Exchange**, 1, pp. 24-25.
- Kelly, P. (1999) **Working in Both Worlds: Students in a Changing Labour Market** (Glasgow, Scottish Low Pay Unit)
- Laden, B. V. et al. (2000) New Institutional Theory and Student Departure, in: J. M. Braxton, (Ed) **Reworking the Student Departure Puzzle** (Nashville, Vanderbilt University Press)
- Lawler, E. H. and Porter, L. W. L. (1967) The effects of job performance on job satisfaction, **Industrial Relations**, 7
- Lloyd, P. and Willmot, L. (2002) The Attraction, Support and Retention Project, **Learning and Teaching in Action**, 1

- Martinez, P. (2001) **Improving Student Retention and Achievement: What Do We Know and What Do We Need to Find Out?** (London, Learning and Skills Development Agency)
- Meyer, M. W. and Zucker, L. G. (Eds) (1989) **Permanently failing organizations** (California, Sage Publications Ltd.)
- Middleton, W. (2001) Electronically tracking and supporting students at risk in G.L. Cutler and S.H. Pulko, (Eds) **Progress 1: Student Progression and Retention in Engineering: proceedings**, Hull, 18th – 20th October 2001 (Hull, University of Hull)
- Miller, C. J., Allen, J., Henry, P. and Ross, D. (2002) **The Interim Report on the Structure of the Academic Year** (Dundee, University of Abertay Dundee).
- Morgan, M. et al. (2001) **A Study of Non-completion in Undergraduate University Courses** (Dublin, Higher Education Authority)
- Mortiboys, A. (2002) Retention as a measure of university effectiveness, **Exchange**, 1, pp. 14-16.
- Orr, S. and Blythman, M. (2002) Student success – a lesson from Further Education, **Exchange**, 1, pp. 20-22.
- Ozga, J. and Sukhandan, L. (1998) Undergraduate Non-Completion: Developing an Explanatory Model, **Higher Education Quarterly**, 52, pp. 316 – 333.
- Pascarella, E. T., Duby, P. B. and Iverson, B. K. (1983) A test and reconceptualization of a theoretical model of college withdrawal in a commuter institution setting, **Sociology of Education**, 56, pp. 88-100.
- Raab, G. (1998) **Participation in Higher Education in Scotland** (Edinburgh, Scottish Higher Education Funding Council)
- Rickenson, B. (1998) The relationship between undergraduate student counselling and successful degree completion, **Studies in Higher Education**, 23, 1, pp. 95-102.
- Simpson, E. (2001) 'Addressing attendance', in: G.L. Cutler and S.H. Pulko, (Eds) **Progress 1: Student Progression and Retention in Engineering: proceedings**, Hull, 18th – 20th October 2001 (Hull, University of Hull)
- Simpson, E. and Prescott, A. (2003) Strategies for social inclusion, **ILTHE Newsletter**, 10, p. 14.
- Smith P. J. and Naylor R. A. (2001) 'Dropping Out of University: A Statistical Analysis of the Probability of Withdrawal from UK University Students', **Journal of the Royal Statistical Society**, Series A, 164 (2), pp. 389-405.
- Tinto, V. (1975) Dropout from higher education: A theoretical synthesis of recent research, **Review of Educational Research**, 45, pp. 89-125.
- Tinto, V. (1982) Limits of theory and practice in student attrition, **Journal of Higher Education**, 53, (6), pp. 687–700.

Tinto, V. (1987) **Leaving college: Rethinking the causes and cures of student attrition** (Chicago, University of Chicago Press)

Tinto, V. (1993) **Leaving college: Rethinking the causes and cures of student attrition. 2nd edition** (Chicago: University of Chicago Press)

Tinto, V. (1997) Classrooms as communities: Exploring the educational character of student persistence, **Journal of Higher Education**, 68, (6), pp. 599-623.

Woodley, A. M. et al. (1992) Factors Affecting Non-Completion Rates in Scottish Universities, **Interchange**, 13, pp1-5.

Yorke, M. (1998) Non-completion of Full-time and Sandwich Students in English Higher Education: Costs to the Public Purse, and Some Implications, **Higher Education**, 36, pp. 181-194.

Yorke, M. (1999) **Leaving Early: Undergraduate Non-completion in Higher Education** (London, Falmer)

Yorke, M. (2000) The Quality of the Student Experience: What Can Institutions Learn from Data Relating to Non-completion? **Quality in Higher Education**, 6, (1), pp. 61-75.

Young, P (2000), "'I might as well give up": self-esteem and mature students' feelings about feedback on assignments', **Journal of Further and Higher Education**, 24, (3), pp. 409-18.