

Student retention and success: a synthesis of research

Dr Robert Jones, April 2008

Overview

Student retention refers to the extent to which learners remain within a higher education institution, and complete a programme of study in a pre-determined time-period.

A wide range of terms is used in both the UK and internationally to describe retention and its opposite. Some tend to emphasise what might be termed the student dimension, e.g. 'persistence', 'withdrawal' and 'student success'. By contrast, others focus on the place (e.g. retained within an institution) or the system (e.g. graduation rates) and then the responsibility shifts to either the institution or government.

Explanatory Context

In the UK mass higher education has resulted in a significant expansion in the number of students participating in higher education. Widening participation has attempted to increase the number of students accessing HE from under-represented groups (with a particular policy focus since the late 1990s on students from lower socio-economic groups). However, it has been recognized that admission to higher education is insufficient: students need to be able to succeed too. Although it should be recognized that "success" may mean different things for different students, much of the current emphasis in the UK has been on the retention of students on courses and their successful completion of them within a specified time-period. While this is highly important, there are limitations with this model for some students (Jones and Thomas 2001, Quinn et al 2005).

The Higher Education Funding Council for England (HEFCE), for example, uses two measures of retention:

"The first is the 'completion rate' – the proportion of starters in a year who continue their studies until they obtain their qualification, with no more than one consecutive year out of higher education. As higher education courses take years to complete, an expected completion rate is calculated by the Higher Education Statistics Agency... A more immediate measure of retention is the proportion of an institution's intake which is enrolled in higher education in the year following their first entry to higher education. This is the 'continuation rate'." (NAO, 2007, p5)

To inform a more meaningful assessment of retention performance at institutional level, the Higher Education Statistics Agency calculates a



benchmark for each institution, which takes account of students' entry qualifications and subjects studied. Most measures, policy and research relate to full-time student retention, as oppose to part-time students. There is currently no consensus about the meanings of retention and success for part-time students and hence little clarity about data collection requirements (NAO 2007).

The focus on retention - a narrow view of student success - is reinforced by the data collection mechanisms and funding regimes. These do not recognize interrupted or partial patterns of participation as valid, but rather perceive them in terms of either individual or institutional failure (Quinn et al 2005, Yorke and Longden 2004).

Unfortunately this approach has led to the largely unfounded belief that the consequence of widening participation is a decline in student retention and thus increased exposure to risk for institutions (House of Commons Select Committee Report, 2001, section 18). In fact, despite a substantial increase in the number of students participating in higher education, the non-completion rate has remained relatively stable (see data presented in House of Commons Select Committee Report 2001 and NAO 2007). Furthermore, international evidence demonstrates that students from lower socio-economic groups do not necessarily have lower rates of success than the majority (Thomas and Quinn, 2006).

Key Research Reports

1. Yorke, M. and Longden, B. (2008) 'The First Year Experience of Higher Education in the UK' York: Higher Education Academy.
<http://www.heacademy.ac.uk/ourwork/research/surveys/fye>

This research report focuses on questionnaire data from 462 students (based in a cross-section of HEIs in the UK) who did not enter their second year of study at their original university (during in 2006-7). The report identified that non-continuation was affected by factors identified such as being poorly informed about chosen course (and, or, institution), financial concerns and the social aspects of HE. The report takes into account respondents' socio-economic backgrounds and detects that those from less privileged circumstances were likely to have more negative experiences than their more advantaged peers. These findings provide broad corroboration for a comparable survey conducted in '97 (Yorke et al) – with the exception that, now, the issue of student-tutor contact time may be a more important factor influencing retention (see also Yorke and Longden 2007).

2. Quality Assurance Agency (QAA) (2008) 'Outcomes from Institutional Audit Progression and Completion Statistics. Second series. Sharing good practice'. Mansfield: QAA
[http://www.heacademy.ac.uk/assets/York/documents/events/QAA P rogression and completion statistics.pdf](http://www.heacademy.ac.uk/assets/York/documents/events/QAA_Progession_and_completion_statistics.pdf)



59 institutional audit reports (published between '04 and '06) were used to produce this document. The focus is on HEIs' collection and use of progression and completion data. It is noted that institutional awareness of the benefits of collecting and acting upon such data has increased. However the document also states that only a minority of HEIs have created fully effective data gathering systems, and make effective use of statistical

data relating to recruitment, retention, progression and completion. Good practice guidelines are thus provided, including the provision of:

- a single central source of data in which all staff have confidence;
- appropriate tools to enable the data to be interrogated in a manner that meets the needs of different groups within the institution;
- appropriate staff development to support effective use of the data and the analysis tools.

This is a follow up to the earlier report published in 2006.

<http://www.qaa.ac.uk/reviews/institutionalAudit/outcomes/ProgressionandCompletion.asp>

3. House of Commons Committee of Public Accounts Committee (2008) Staying the course: the retention of students on higher education courses. Tenth report of session 2007-8. London: The Stationery Office Ltd

http://www.heacademy.ac.uk/assets/York/documents/events/Committee_of_Public_Accounts_report.pdf

This is the Public Accounts Committee's response to the NAO (2007) report. The Committee reported on widening participation and improving retention in higher education in 2002. At that point, it concluded there was a need for improvement in several areas relating to student retention such as:

- reducing the wide variation in universities' retention rates;
- funding to support students from low-income backgrounds;
- tackling skills gaps;
- supporting students with disabilities;
- information for potential students.

More recently, the National Audit Office (2007) has examined the progress in improving retention since 2002 and concluded that there is still scope for universities to improve retention. They need good quality management information including data on the reasons for leaving. They can provide additional academic support for students, for example for those struggling with the mathematical elements of their course. Student access to tutors for both pastoral and academic support is important, especially as the numbers of students entering higher education institutions increases. The Committee took evidence from the Department and the Funding Council on their role in improving retention, progress by universities and at a national level, and variations in the retention of different groups of students.

4. National Audit Office (NAO) (2007) ‘Staying the course: the retention of students in higher education’.

Report by the Comptroller and Auditor General. London: The Stationary Office

<http://www.nao.org.uk/pn/06-07/0607616.htm>

This is a report by the National Audit Office about the retention of students in higher education in the UK; it builds on the previous report from 2002 (NAO 2002). The focus is on the extent to which the sector is continuing to improve its performance in retaining undergraduates on their higher education courses, in particular whether the:

- sector’s performance on retention has improved since it was last reviewed;
- Higher Education Funding Council for England could do more to encourage the sector to improve retention of students;
- higher education institutions could do more to improve retention of students.

The report includes an analysis of HESA data about student retention and completion and case studies of higher education institutions. It concludes that the sector has high rates of student retention (especially when compared internationally) but that institutions could do more to improve student success. The report advocates greater monitoring and use of data within institutions about student retention, and the sharing of evaluated effective practice across the sector to support this goal.

5. van Stolk, C., Tiessen, J., Clift, J. and Levitt, R. (2007) ‘Student retention in higher education courses. International comparison.’ Report prepared for the National Audit Office. Cambridge: RAND Corporation. http://www.nao.org.uk/publications/nao_reports/06-07/0607616_international.pdf

This report was commissioned by the National Audit Office to explore student retention from an international perspective. Literature review and interviews with experts were undertaken in four selected countries: Australia, Ireland, the Netherlands and the United States. For the selected countries, the report provides:

- an overview of their systems of higher education and analyses of the rates of student-non-continuation on higher education courses over the past ten years;
- a review of approaches used by higher education institutions to maximise the likelihood of student retention;
- reasoned conclusions on the effectiveness of the approaches to student retention;
- lessons that might be transferable to the UK to inform approaches in this area.

In summary, the study found that the countries studied



- have measured their HE completion rates in HE with varying degrees of success, although only Australia and the Netherlands systematically capture retention rates;
- the UK is one of the better performers in terms of student completion and survival rates where comparable data is available.
- have policies aimed at disadvantaged groups, although the extent to which these encompass the participation and retention rates of disadvantaged groups differs between countries;
- have found that the reasons given by and for students leaving HE are age at commencement of studies, the wrong choice of study course, transition from secondary school to HE, and financial burden;
- display important commonalities in the policies proposed and adopted to improve the retention of students.

It is important to note, however, that differences in the national and institutional organisation of HE need to be taken into account when comparing retention rates between countries and in considering the transferability of instruments/policies aimed at improving retention in HE systems.

6. Yorke, M. and Longden, B., 2007, The first-year experience in higher education in the UK. Report on Phase 1 of a project funded by the Higher Education Academy. York, The Higher Education Academy.

<http://www.heacademy.ac.uk/ourwork/research/surveys/fye>

Over 7,000 students were surveyed on their experiences of learning, teaching and assessment, and on other aspects of their first-year experience such as travel, finance and social life to find out what aspects of the student experience may affect students' decision to withdraw from their studies. It found that the more students know about their institutions and courses before enrolling, the less likely they are to consider withdrawal.

7. Quinn, J., Thomas, L., Slack, K., Casey, L., Thexton, W. and Noble, J. (2005) From Life Crisis to Lifelong Learning. rethinking working class 'drop out' from higher education. York: Joseph Rowntree Foundation. <http://www.jrf.org.uk/bookshop/details.asp?pubID=730>, accessed 20/3/08.

This research used a range of qualitative methods – including research jury days, interviews with 67 former students and a set of commissioned international studies - to explore the experience and implications of leaving higher education early for students from non-traditional backgrounds, particularly lower socio-economic groups and first generation entrants. The research found that although some students drift away, for many it is a significant decision – perhaps the first decision that they make, and it is not taken lightly. The reasons for withdrawal

included issues such as being on the wrong course, academic challenges, a lack of institutional belonging and non-university commitments. Perhaps surprisingly the research found that leaving higher education was not necessarily a disaster, rather students had sound reasons for withdrawing early and in addition most students felt they had gained skills, confidence and life experience from their time at university. Furthermore, all but one intended to return to higher education.

8. Action on Access (2003) Student Success in Higher Education. Bradford, Action on Access

This report covers three research-based activities undertaken by Action on Access (from December 2001 to December 2002). The first was an analysis of two types of strategy documents – those addressing widening participation, and those focusing on the development of learning and teaching. The second and third activities take as their focus the context of institutional practice. In both cases, institutional case studies were developed to explore how universities were responding greater levels of student diversity. Examples of good practice are provided along with fifteen ‘vignettes’ chosen to illustrate the variety of approaches adopted by HEIs.

9. Thomas, L., Quinn, J., Slack, K. and Casey, L. (2002) Student Services: Effective Approaches to Retaining Students in Higher Education. Full Research Report. Stoke on Trent: Institute for Access Studies, Staffordshire University.

<http://www.staffs.ac.uk/institutes/access/docs/SSReport.pdf>

Universities UK launched a project to identify a range of effective approaches by student services in retaining students in Higher Education. The project considered the most effective ways of ensuring access to services, particularly for those students at risk of non-completion. The research was funded by the DfES and carried out by the Institute for Access Studies (IAS) at Staffordshire University; it was overseen by a steering group which included representatives from Universities UK, SCOP, the DfES, the NUS, HEFCE, UKCOSA, and AMOSSHE. The DfES’ interest in this area was highlighted by Baroness Blackstone, who pointed to the need for welfare and other pastoral services to reach out to students from disadvantaged backgrounds. Acknowledging that there are already examples of very good work within the sector, the Baroness stressed, not only the need to universalise best practice, but to go beyond this and learn from overseas experience wherever possible. The project focused on support services available to students for the period they are attending a higher education institution. This encompassed both academic support, welfare related support and other student services, for example, finance and student employment services. The research included a number of case studies of institutions examining both specific initiatives and overall provision, followed by further consultation with the sector to discuss guidance for good practice.

10. Dodgson, R. and Bolam, H. (2002) Student retention, support and widening participation in the north east of England. Sunderland: Universities for the North East.

<http://www.aimhigher.northeast.ac.uk/images/pubFiles/RetentionReport66.pdf>

This is a report about a research project that took place between 2001-2002. It examined and evaluated activities to support and retain students in the six universities located in the north east of England (Durham, Newcastle, Northumberland, Open, Sunderland and Teesside). It considered national and institutional strategies for student retention and identified common aspects that all institutions need to consider for supporting students, especially in the context of widening participation. The research reached the following conclusions:

- the region's universities perform well with regards to student retention and completion;
- all of the region's universities have adopted the student lifecycle for organising services to support student success;
- there is greater specialisation and increasing specificity in student support (e.g. dedicated teams);
- support is pro-active;
- support involves staff and others from across institutions (e.g. mentors, students' union) and covers the whole student lifecycle;
- financial issues are highly significant in relation to student withdrawal and this is not a matter that individual universities can address directly;
- websites and interactive ICT solutions are being used to provide students with information and support and to develop flexible learning opportunities.

Overview of Research Findings

In the UK there is a growing body of evidence relating to student retention and success. Much of this is institutional research, focusing on courses, departments or single institutions. Where larger studies have been undertaken the emphasis has been on institutional comparisons or the national picture, although some research has been international in scope. Regarding national research, Yorke and colleagues have undertaken some longitudinal work on withdrawal, retention and completion (Yorke et al 1997 and Yorke and Longden 2008). In 1997 Ozga and Sukhnandan stated that retention research is based either on national statistical data or isolated institutional studies, and that there is little in-depth qualitative analysis on a national scale. More recent national studies and reports help to address this – e.g. Quinn et al 2005, NAO 2007. Thomas and Quinn 2003 and 2006 have looked at student retention and success within an international context. UK retention research is complemented in particular by the large body of US work in this area (see for example Pascarella and Terenzini 1991 and 2005, Astin, 1984; Berger & Braxton,

1998) and the work of Vincent Tinto has been highly influential here (e.g. Tinto 1993). More recently countries such as Australia (McInnis 2001) and Ireland (Morgan et al 2001) have undertaken research in this field – some of which is relevant to the UK context.

In summary, UK research can be seen to have addressed four areas of enquiry:

1. Establishing rates of withdrawal, retention, progression and completion, at institutional and national levels, both generally and in relation to specific student groups, institutional types, subjects etc.
2. Identifying and exploring the causal factors underlying withdrawal and success.
3. Examining approaches to improving retention and success, particularly at the institutional level.
4. Exploring the experiences and implications of early withdrawal for students, institutions, the sector, the country etc.

The research synthesis divided into these four topics.

1. Establishing rates of withdrawal and retention

Data collection by HESA (Higher Education Statistics Agency) is used to provide headline information on rates of retention (based on the funding council's two measures defined in 'Explanatory Context'). This provides information in relation to each of the countries in the UK and for each institution. However, the data only relates to full-time students, and includes little differentiation by student group - the one exception being mature students (over the age of 21). OECD data shows that the UK has a high rate of student retention compared to other countries. However, many students who are retained seem to consider withdrawal at some point and Dodgson and Bolam (2002) note that even in some institutions with high rates of retention, 1 in 4 students had considered withdrawing.

An important question here is 'who is most likely to withdraw from higher education?' As part of its review of retention in the UK, the National Audit Office (2007) undertook its own analysis of HESA statistical data and identified variations between subjects and institutions:

Medicine and Dentistry courses have by far the highest continuation rates (98 per cent) and Combined Subject courses have the lowest (83 per cent). Similarly there are variations in average continuation rates between the different types of higher education institution, with The Russell Group universities having the highest average continuation rate and the universities created since 1992 having the lowest average rate overall (NAO 2007, p7).

Further analysis indicates that 'variations between subjects and types of institution are largely due to the characteristics of students, including their level of pre-entry qualifications'. From their analysis they go on to suggest

that when all other factors are taken into consideration:

- full-time, first-degree student is much more likely to continue their studies into a second year than a similar part-time student;
- a full-time student with three A levels at grade A is much more likely to continue than a similar student with two A levels at grade D; and
- a part-time student registered with a higher education institution but taught in a further education college is more likely to continue than a similar student in a higher education institution. (NAO 2007)

Institutional research at Roehampton University (Curtis 2007) analysed the planning data for the 2005/06 academic year the following factors were correlated with non-continuation (statistically significant $p. < 0.01$):

- type of qualifications (those with non-A-levels qualifications were more likely to go);
- level of tariff points (those with lower tariff points were more likely to go);
- gender (males were more likely to go);
- entry (those coming through clearing were more likely to go).

It also found that programmes with a large number of students from groups that have higher non-continuation rates may be more likely to encounter retention difficulties.

The higher education sector's dual policy focus on widening participation and student retention has turned attention to the relationship between social class and early withdrawal. Statistical analysis of the probability of withdrawal for UK university students indicated that non-completion was more probable for students from low-ranked, occupationally defined social classes (Smith and Naylor, 2001) than for other classes, and Scottish research found it was the poorest students who were most likely to withdraw early (Forsyth and Furlong, 2003). However, NAO research (2002 and 2007) and other studies suggest it is not the background of the students which is most influential, but rather entry qualifications. Equating academic ability with social class is similarly problematic (Johnston, 1997). Analyses must take into account broader issues relating to educational opportunities (Gorard et al 2005, Feinstein, Duckworth and Sabates 2004).

Entry qualifications also account for much of the institutional differences that can be observed across the sector, hence the NAO (2007) finding that most institutions meet or exceed their benchmarks.

2. Factors contributing to early withdrawal

Research exploring the reasons for student withdrawal tends to conclude that there is rarely a single reason why students leave. In most cases, the picture is complex and students leave as a result of a combination of inter-related factors. Consequently, any approach which requires students' (or others) to identify the reason for early withdrawal is flawed.

Yet institutional exit surveys are often based on this approach and may often assume there is a single reason for withdrawal, making them unreliable as a source of evidence.

The most comprehensive national survey of students withdrawing from university was conducted by Yorke in the mid-1990s (n = 2151) (Yorke 1997). It identified the five most significant reasons for student non-completion:

- incompatibility between the student and institution;
- lack of preparation for the higher education experience;
- lack of commitment to the course;
- financial hardship;
- poor academic progress.

Yorke and Longden's more recent survey (2008) identified the following seven factors as contributing to early withdrawal:

- poor quality learning experience;
- not coping with academic demand;
- wrong choice of field of study;
- unhappy with location and environment;
- dissatisfied with institutional resourcing;
- problems with finance and employment;
- problems with social integration.

Davies and Elias (2002) obtained similar findings (with a sample of over 1500 students). In their survey the main factors for leaving were:

- a mistaken choice of course (24%);
- financial problems directly related to participating in higher education (18%);
- personal problems (14%).

More recently the NAO (2007) identified five types of reasons why students withdraw:

- personal reasons;
- lack of integration;
- dissatisfaction with course/institution;
- lack of preparedness;
- wrong choice of course;
- financial reasons;
- to pursue other opportunities.

In this synthesis we have identified the following reasons or factors for review:

1. Preparation for higher education.
2. Institutional and course match.
3. Academic experience.
4. Social integration.
5. Financial issues.
6. Personal circumstances.

2.1 Preparation for higher education

Research identifies that some students are not adequately prepared for higher education, especially in academic terms. For example, Quinn et al 2005 discuss the academic culture shock that their sample of working class students experienced as they made the transition from school or college to higher education. In particular students lacked the study skills and ability to undertake self-directed or autonomous learning. Van Stolk et al (2007) found transition from school or college to higher education was a factor that influenced retention and withdrawal in other countries too.

2.2 Institutional and course match

Research reports that retention is affected by issues related to pre-entry information, advice and guidance, e.g. that it is insufficient or partial, and the different sources that groups make use of. Thus students who leave higher education often find that the programme they have enrolled in does not meet their expectations or that they are simply on the wrong course (Quinn et al 2005, NAO 2007, Yorke and Longden 2008). This problem can be exaggerated by students who enter courses and institutions through the clearing process. There is body of US research about institutional match and integration – the extent to which the institution is perceived to meet the needs of the students and how far they feel part of the institution (e.g. Tinto 1995, Berger and Braxton 1998).

2.3 Academic experience

As noted above, students may be poorly prepared for higher education and struggle to make the transition into the HE learning environment. They may lack basic skills, fail to adjust to the unfamiliar approaches to learning and teaching, struggle with aspects of the academic discipline, fail assessments and feel unable to ask staff or peers for help (e.g. Yorke and Longden 2008). Students are most likely to leave in their year of entry (Yorke, 1997; Thomas, 2002; Quinn et al 2005, Yorke and Longden 2007) which highlights the importance of the first year experience.

There is significant research evidence that learning and teaching environments are highly influential for students' retention and success (e.g. Laing and Robinson, 2003). Davies (1999) asks whether poor student retention is 'a problem of quality or of student finance' within the FE context. Drawing on questionnaire research with 415 students, 34 per cent of whom had withdrawn, he argues that although financial hardship is pervasive it is not the primary cause of student drop-out. Rather, issues relating to pedagogy, practical organisational issues and the support provided have the most pronounced impact on retention rates. However, he found a mismatch between staff assessment of the reasons for early withdrawal and those of students', with the former implicitly blaming students and the latter identifying learning and teaching issues. In the HE sector, Thomas (2002), drawing on focus groups with 32 students, reports that finance is important, but relations between students and with

staff can be much more influential in decisions to remain in HE. Rhodes and Nevill (2004) reach similar conclusions using a student survey: debt and money worries are significant, but so are those of learning and teaching. They conclude that many of the issues identified are within institutional control, and thus all students can be supported to succeed in higher education.

Research about specific student groups in HE repeatedly finds that the learning environment must change for these students to feel integrated and to reach their academic potential. For example, Bamber and Tett (2001, writing about mature students from lower socio-economic groups) conclude that it is essential to take into account the wider socio-economic context of students within the learning and teaching context in HE. Parker et al (2005) find that those institutions that have been successful so far in widening participation have developed a diversity of teaching and other practices appropriate to a mass sector.

Research on learning and teaching suggests that not only is this a highly important area, but improvements will benefit all students. For example, Preece and Godfrey (2004) argue that expertise in academic literacy practices is crucial for all students to succeed. They advocate a more explicit and dynamic approach to the teaching of academic literacy practices. In relation to disabled students Tinklin et al (2004) found that the relevant learning and teaching developments need to be embedded into all institutional policies and procedures. This will benefit all students (see also Avramidis and Skidmore, 2004).

2.4 Social integration

A further area of importance is that of social integration – i.e. the extent to which students feel that they ‘fit in’, particularly in a social sense. Harvey and Drew (2006) define social integration as “those experiences that help to connect students to the college environment, that aid in their psychosocial development and that contribute to their overall satisfaction in college”. They cite Tinto (1993) who maintains that formal and informal social experiences may also serve to reinforce students’ attachment to an institution, facilitate development of their educational goals and improve their academic performance.

Some research results tend to suggest that non-academic factors have more weight than academic factors in withdrawal decisions (e.g. Bers and Smith, 1991). Thomas found that friendships were important to students’ decisions to stay in higher education, especially when encountering personal difficulties (Thomas 2002). Quinn et al (2005) found that local students were often less engaged socially than peers living on a university campus (see also Longden and Yorke 2008). Part-time students are also less able (and some time less inclined) to participate in social activities. Indeed, for many students from under-represented groups, the classroom provides the only opportunity for developing peer relations, and thus learning strategies ought to address

this need – through for example collaboration and group work. Research in the US has discussed the importance of peer relations, providing both academic and social support (Tinto, 1998, 2000). Yorke and Longden (2008) identify how the academic experience can be socially isolating (e.g. large lectures) and that this can contribute to early withdrawal. The NAO report that social integration can be particularly challenging for “students from deprived areas [who] may feel culturally isolated” (NAO 2007).

2.5 Financial issues

Student financial issues have frequently been identified as a barrier to completion, especially by students from lower socio-economic groups (Ozga & Sukhnandan, 1997; Yorke et al., 1997; Yorke, 1999; Dodgson & Bolam, 2002). HEFCE-funded research in 1997 found that financial hardship exercised some impact on early withdrawal (Yorke et al 1997 and Ozga & Sukhnandan, 1997). In particular, students from the two lowest socio-economic groups were more likely to withdraw because of financial difficulties than students from the top two social groups. The House of Commons Select Committee Report (2001) on student retention found finance and part-time employment to be contributory factors to early withdrawal. Both lack of money and concern about debt adversely affect retention. The NAO reported that financial issues can result in withdrawal by students from disadvantaged backgrounds, and benefits and allowances may not come through in time to meet financial commitments. They also note that fear of debt, more than actual levels of debt, may be an issue for some students. Thomas (2002) found that, for some students, relative income levels were an issue – e.g. their income as students compared with that of friends in employment or compared with their own previous income if they entered HE from employment.

The House of Commons Select Committee on retention (2001) was concerned about the need for students to engage in part-time employment in order to generate a supplementary income. Indeed, part-time employment has been found to be a contributory factor in early withdrawal (Callender & Kemp, 2000). The NAO (2007) report that students may struggle to balance working while studying, and that working in excess of 15 hours a week has been found to reduce chances of progression; Longden and Yorke (2008) found that students seemed to struggle if they worked 13 or more hours per week, while undertaking 6 hours or less did not present any particular challenges.

Most studies, however, conclude that finance per se is not the main reason why students withdraw from HE. For example, Johnston (1997) notes that financial difficulties were often cited as a reason for high student drop out rates, but in only 12% of the student records analysed, was it cited as a reason for non-progression. Although the 12% figure remains substantial, it is not as high as initial anecdotal evidence had suggested. Dodgson and Bolam (2002) contend, however, that, in the universities in the north east of England, staff and students believe

finance is the main cause of student drop-out. Yorke and Longden (2008) found that finance and employment-related issues were particularly likely to influence the non-continuation of:

- older rather than younger students;
- male rather than female students;
- students whose ethnicity was other than white rather than white students;
- students in post-1992 universities and colleges rather than those in pre-1992 universities;
- students with prior experience of higher education rather than those without it;
- students with dependants rather than those without;
- students with low prior knowledge of institution and/or programme rather than those with such knowledge.

2.6 Personal circumstances

Personal circumstances can include mental and physical health problems, caring for a relative, childcare, bereavement etc. All studies show that, although these factors are relevant for some students, they are not as significant as is sometimes assumed. For example Johnston's institutional research (1997) suggested that non-academic problems are more likely to contribute to a student's failure to progress than academic problems and that the range of non-academic problems was both broad and complex. Respondents cited personal reasons in 29% of cases of withdrawal. These were wide ranging and included:

- general unhappiness (14%);
- domestic problems (10%);
- psychological/emotional problems (8%);
- inability to 'fit in' (8%);
- immaturity (3%).

A relatively small group of students (8%) had left to take-up full-time employment. In addition some students moved courses to another institution and so were included in the statistical figure for non-retention.

3. Factors enhancing student retention and success

Recommendations arising from research on student retention and withdrawal tend to identify the role of the institution, rather than placing responsibility solely on the student. Indeed institutions are encouraged to (NAO 2007) and have become more pro-active in supporting student success (Dodgson and Bolam 2002). Based on a review of the literature Yorke and Longden (2008) suggest the following factors contribute to good student retention:

- an institutional commitment to student learning, and hence to student engagement;
- proactive management of student transition;
- curriculum issues such as treating learning as an academic and social milieu; and choosing curricular structures that increase the

chances of student success.

In this section of the synthesis we consider the following issues:

1. Pre-entry information, preparation and admission.
2. Induction and transition support.
3. Curriculum development.
4. Social engagement.
5. Student support.
6. Data and monitoring.

3.1 Pre-entry information and preparation

Pre-entry information and preparation for higher education includes the provision of information to inform choice and shape expectations about higher education, the institution and the course. Yorke and Thomas (2003) found that, in all institutions with a high number of widening participation students and rates of retention above benchmark levels, the institutions were actively engaged in outreach work with potential students. Dodgson and Bolam (2002) found that a number of universities are making use of the summer period to prepare student for entry to higher education, with positive effects on retention.

3.2 Induction and transition support

While induction is important to all students, it is of “particular value to students whose backgrounds may not have given them an appreciation of what is expected of them (i.e. they lack ‘cultural capital’)” (Yorke and Thomas 2003). Pre-entry and induction is used to make the expectations and practices of higher education explicit to students, and try to level the advantages some students have compared to others in terms of understanding new ways of learning and being able to ask for assistance when this is not clear. Learning skills are being taught, to overcome the proposition that all students know how to learn in an HE context (Action on Access 2002).

Institutions are recognising the value of a “longer and thinner” induction experience that starts early and lasts longer than one week. This provides an effective opportunity for new students to assimilate and make sense of the information provided, to socialise with the staff and existing students through a range of activities (with less emphasis on alcohol, which could alienate some minority group students) and to engage in and belong to the HE community at their institution.

Induction programmes should provide clarity about what is expected of students at university, build confidence and motivation and allow students to integrate both socially and academically. This process is most effective if it is a longer process, starting before enrolment, and extending through the first semester, or beyond. Early engagement could include the provision of timetables, course handbooks and reading lists, summer schools, or materials accessed via a virtual learning environment. Integration of the induction process into the subject specific curriculum

helps students to learn in the context of their discipline (Warren 2008).

According to Harvey and Drew (2006), induction is regarded as a significant part of the package to promote good student retention. But research implies a need to clarify the aims and purposes of induction, to separate out and provide the necessary information in a timely manner (rather than all at once). The key issues to be communicated in induction are about:

- course material;
- learning support services;
- general information about the university and the environs;
- adaptation to university life;
- becoming an autonomous learner;
- course and assessment requirements;
- ways to develop the skills needed for academic work or for work-based learning.

3.3 Curriculum development

Curriculum development is at the heart of what institutions can do to improve student retention and success. For many students their academic interactions are the only way in which they interact with the institution, so that learning, teaching, assessment and course content become central to students' experience and their decision to stay or leave early. In particular, research evidence points to the importance of:

- a) Active learning and teaching strategies.
- b) Formative assessment.
- c) Relevant courses.
- d) Flexible learning.

a) Active learning and teaching strategies

Many efforts to improve student retention and success via learning, teaching and assessment approaches focus on promoting greater student engagement in the classroom. This is primarily being undertaken by moving from largely teacher-centred approaches towards student-centred learning practices. In summary, teacher-centred approaches view students as 'empty vessels' and lecturers as owners of knowledge; the lecturer directs the learning process and controls students' access to information. Learning is viewed as an additive process; instruction is geared for the 'average' student and everyone is forced to progress at the same rate. In contrast, student-centred approaches acknowledge that students bring knowledge, experience and ways of understanding with them, and thus they are not perceived as empty vessels. The different ways in which students learn are also recognized. Learning is therefore conceptualized as an active, dynamic process in which connections are constantly changing and their structure is continually reformatted. Students construct their own meaning by talking, listening, writing, reading, and reflecting on content, ideas, issues and concerns. There is a consensus that interactive as opposed to didactic teaching improves academic success and promotes the inclusion of learners who might feel

like outsiders (Bamber and Tett, 2001; Haggis and Pouget, 2002; Thomas, 2002; Parker et al, 2005). Student-centred learning conceives of students as playing a more active role in their learning processes. It is the development and utilisation of such learning and teaching strategies (that promote an active, student-centred approach to learning and values the student for what they bring to the learning process) which helps to enhance student engagement, course commitment and retention on the programme.

Vincent Tinto has promoted the idea of learning communities as a way of facilitating student engagement – both academically and socially. For example, “by registering students for the same course or having all new students study the same topic, the entering students form their own self-supporting associations to give each other academic and social support” (Tinto, 2000, p28-9). In Tinto’s work, students found that learning communities had academic and social benefits that impacted positively on student achievement and persistence (Tinto 1998, Tinto 2000).

b) Formative assessment

Many students struggle to make the transition from a fairly structured learning experience in schools and colleges to the largely autonomous approach required by study at the higher level. Pedagogical research, especially with non-traditional students, reports that formative assessment can offer an integrated and structured approach to equipping all students with the information and skills they need to make a successful transition to higher

education and to continue to succeed academically (see Yorke 2001).

The great advantage of formative feedback is that it is integrated into the learning experience, and so does not detract from discipline-focused teaching. It also reaches all students, not just those who have the knowledge and confidence to seek support. Furthermore feedback on formative assessment provides a vehicle for interaction between students and staff, thus helping to develop student familiarity and confidence to approach staff for additional clarification and guidance if necessary.

Feedback information can also be used by staff to realign their teaching in response to learners’ needs (see Russell 2008).

c) Relevant courses

Some institutions are introducing new curriculum areas, which draw on and value a wide range of experiences and knowledge, for example black history, Islamic studies etc (Yorke and Thomas 2003). Others are reviewing the existing curriculum to identify assumptions and biases that favour traditional students’ knowledge and perspectives at the expense of others (see examples of curriculum change presented in Crosling et al 2008). Careers education can be integrated into the early stages of students’ academic lives to enable them to understand better how the studying they are doing relates to their career aspirations. This can be coupled with greater awareness of employability skills, so that students can prosper in the labour market and overcome some of the biases they

face there too (Blasko et al 2003).

d) Flexible learning

The NAO report (2007) finds that some institutions, and in particular those with higher numbers of non-traditional students, are being flexible in allowing students to choose learning options to fit their personal circumstances, for example through comprehensive modular systems. This approach is recommended by Quinn et al (2005). Dodgson and Bolam (2002) found that ICT was widely used in the six universities in the north east of England to improve the flexibility of learning opportunities and enhance student retention. They also note the importance of timetables that try to accommodate students' needs (e.g. blocking time in university and free time, making timetables available well in advance, etc)

3.4 Social engagement

Harvey and Drew (2006) found that although social integration is thought to be crucial to student retention and success, it is given comparatively little attention within institutions – for example the forming of friendships and the impact of the locality and its social (non-university) facilities are not considered. In the US context Tinto has established learning communities that study together and these have promoted social, as well as academic, integration. Thomas et al (2002) found that student services

can play a role in promoting social interaction by “helping students to locate each other (e.g. mature students, international students etc), by providing social spaces, by offering more flexible and affordable accommodation options and by compensating for the informal support usually provided by networks of friends”. Yorke and Longden (2008) also note the importance of accommodation and living arrangements.

3.5 Student support

Student support includes academic support, skills development, pastoral support, financial information, advice and support (see Thomas et al 2002 for an examination of the contribution of student services to student retention). Support may be delivered by dedicated, professional staff (e.g. student services), by academic staff (e.g. personal tutor), by peers (e.g. via mentoring schemes) or by the students' union. There are different models of providing both academic and pastoral support. Warren 2002 points to three means of providing academic support: separate, semi-integrated and integrated curriculum models, and similarly Earwaker (1993) identifies traditional pastoral, professional and an integrated curriculum model as ways of providing both academic and pastoral support. Research on widening participation points to the value of integrated models - particularly for academic support, and the provision of one-to-one support (Bamber and Tett, 2001; Comfort et al, 2002) with additional support when required (Comfort et al, 2002). Similarly, Warren argues that a mix of semi-integrated and integrated models of curriculum provision improves the capacity for helping a wide spectrum of students to succeed at university (Warren 2002).

Integrated approaches are favoured, as research shows that many students who would benefit from academic and other support services are reluctant to put themselves forward (Dodgson and Bolam, 2002). A proactive or integrated approach overcomes this issue and helps to reach all students. Pedagogical approaches are not only a way of reaching all students, they also have the advantage of helping all students. Research into learning and teaching indicates that developments that benefit students from under-represented groups, such as first generation entrants or disabled students, also benefit every student enabling each one to fulfil his or her academic potential (see for example Preece and Godfrey 2004, Tinklin et al 2004 and Avramidis and Skidmore, 2004).

Dodgson and Bolam (2002) found that personal tutoring was at the centre of support networks for students – with 69% of students having sought advice from their tutor. Yorke and Thomas (2003) found increasing recognition that the role of the personal tutor needed revision. In the past, personal tutoring had often been only a token activity and, in any case, the assumptions of a well qualified, young, financially secure student body are no longer valid in the early twenty first century. More recent evidence suggests that new approaches to personal tutoring are being developed in institutions, often in response to poor rates of student retention (see Thomas and Hixenbaugh 2006).

Action on Access (2002) found that many HEIs with a commitment to wider access and above benchmark levels of retention have one-stop-shop student services. This type of provision not only makes it easier for students to access academic and pastoral services, but also encourages students to use the facilities. The inclusion of services that all students may need to access and to which no stigma is attached (e.g. accommodation office, sport and recreation, registry etc) helps to encourage uptake (see Thomas et al, 2002). Dodgson and Bolam (2002) identified the growing use of information communications technology (ICT) to provide student information and support, and thus improve retention. University websites provide prospective, new and current students with a wealth of information on preparing for and succeeding at University, as well as on the availability of academic and pastoral support services. In addition, they note a move towards the active delivery of on-line support and guidance.

Yorke and Thomas (2003) found that institutions were dealing with financial support in three ways: providing information and guidance about financial matters, providing direct financial support, and facilitating part-time employment. Financial advice took the form of educating students about debt in order to create a balanced and informed approach, or consisted of assisting students to learn about the sources of finance that were available, and how to apply for funding.

3.6 Data and monitoring

Dodgson and Bolam (2002) identify monitoring students' attendance and tracking their performance as approaches that contribute to student retention and progression. They argue, however, that improvements in data collection need to be connected with a proactive approach to supporting student success. The NAO (2007) find that most institutions collate and disseminate internal information on withdrawal rates at course and faculty level. Others also use student level information, for example on attendance, to identify students at risk of withdrawal. A minority of institutions conduct periodic exercises to contact early leavers to identify the real reasons why they left, particularly where some common issue affecting retention is indicated (NAO 2007). The QAA analysis (2008 and 2006) agrees that data collection needs to be linked to making effective use of the information, and that there remains scope for improvement at institutional level. It suggests that there is a

“continuum of development stages through which institutions move as they enhance their capability in this area [data collection to improve progression and completion]”. (QAA 2008, p10)

These stages are summarised as follows:

- Stage 1 - little or no central provision of data; local sources using different definitions of concepts such as 'progression'; consequently little use is made of data beyond descriptive presentation in annual and periodic review reports.
- Stage 2 - central systems for handling data and producing reports, but staff may not yet be fully confident in engaging with the data, or completely convinced of the reliability of centrally produced data; analysis consequently still fairly limited, and some local data sources may still be in use.
- Stage 3 - tools and systems in existence so that staff can obtain the necessary data, and have the appropriate skills to analyse it in an informative manner; however, this facility remains to be fully exploited, generally because of lack of central strategic oversight.
- Stage 4 - fully integrated management information systems producing data fit for purpose, the analysis of which informs institutional thinking and strategic decision-making at all levels.

They believe that the majority of institutions are located somewhere between stages 1-3 and very few have progressed to stage 4. Thus at the moment much of the available student data remains a “valuable but largely unexploited resource” (p10). In order to improve the collection and effective use of data, the report recommends:

- a single central source of data in which all staff have confidence;
- appropriate tools to enable the data to be interrogated in a manner that meets the needs of different groups within the institution; and
- appropriate staff development to support effective use of the data and the analysis tools.

4. Experiences and implications of early withdrawal

Students

Quinn et al (2005) examined the experience and implications of early withdrawal through a large qualitative study.

“For some students in our study, ‘drop out’ was a non-choice, in that they drifted into it or initiated it rather than do exams or assignments they felt they would fail. However, for the majority, it can be perceived as a rational decision in response to a set of circumstances that made study at that time and place unproductive for them. However, because of the way it was managed by institutions and presented to students as a dead end, withdrawing was largely experienced as disempowering. This was true even when it was simultaneously a relief, ‘a burden taken off my back’. Choosing to leave early became ‘dropping out’ with all its connotations of fecklessness and failure. However, ‘drop out’ can also be seen as a learning experience. With hindsight, participants were now aware of what they should have done at the time; such as choosing a course more carefully, finding out more detailed information on course content, being more aware of less explicit information contained within a prospectus, joining clubs or societies and seeking specific help or advice and guidance. They also point to the necessity for institutional changes, such as more accurate information about courses, more opportunities for peer support and group work, more integrated learning support within the curriculum – particularly at an early stage, better systems of personal tutoring, more targeted access to student support and more institutional flexibility. The majority of our participants believe that, were they to return to study, they could operationalise the knowledge gained through ‘dropping out’. Rather than being serial ‘failures’, they would thus be well equipped to make the most of the university opportunity”. (Quinn et al 2005 p36)

Although ‘drop out’ can be traumatic, many students do not regard their decision to leave early as negative. On the contrary, they gain positive experiences from having attended university, if only for a very short time, and this can help them to move forward with their lives. Initially students reported relief and regret and that “failing” knocked their confidence. However, students highlighted a number of wider benefits they felt they had gained from their university experience, such as a sense of regaining control and independent decision-making, valuable life experience, improved communication skills and increased self-confidence. It should be noted that, although students retained a positive attitude towards higher education, leaving early generally had a negative impact on employment opportunities.

Institutions

For institutions, there are financial and reputational implications of students withdrawing. For example, at the Open University, Simpson

(2006) has assessed the costs and benefits of providing additional student support and increased student retention. This revealed that the average cost of additional contact with students was £200 and this resulted in increasing retention rates by 5%, with a saving of £1300 per student, which represents a 550% return on investment. Yorke and Longden (2004) discuss the importance of performance indicators, especially in light of media coverage, in terms of enhancing or damaging institutional reputations. Others identify low rates of retention with concerns about quality and institutional reputation, with e.g. employers, potential students, the community etc (Quinn et al 2005).

Implications for Stakeholder Groups

The majority of policy implications identified in the research are directed at the institution.

Policy recommendations for institutions:

- Build institutional commitment to student retention, through an institutional strategy and actions which are understood and implemented by all staff
- Ensure students have access and make use of pre-entry information, advice and guidance to inform their choice of course, subject and institution
- Use pre-entry programmes to help prepare students for the transition to higher education learning
- Assist students in developing a sense of belonging through induction, student-centred learning and social integration
- Improve students academic experience through induction, active learning and teaching strategies, formative assessment, relevant courses and flexible learning
- Collect and use data at the institutional, faculty, course and student levels; and undertake research with students who leave early
- Support students through integrated skills development, proactive personal tutoring, easy to access student services
- Evaluate and share good practice within the institution and beyond.

Recommendation for the funding councils:

- Make it easier for students to study flexibly; e.g. to move in and out of courses and institutions through multiple entry and exit points, abandoning the distinction between full and part-time study, allowing longer periods of absence, and recognising smaller units of “success” (e.g. modules rather than degree programme).

Senior managers – institutional commitment to improving retention.

Academic staff – induction, learning, teaching, assessment, curriculum org

Student services – new services, more proactive, larger numbers of stude

Students' Union – fewer students based on campus, new services to meet student needs, less demand for traditional social activities.

Practical Applications

There are a number of projects aimed at improving student retention, or factors that contribute to the effective retention and success of students in higher education (e.g. transition, induction etc).

1. The PROGRESS FDTL project seeks to improve levels of student success in Higher Education programmes of study in electrical and electronic engineering. More specifically its objectives are to:

- establish the current situation in terms of student failure rates for individual components of HE programmes as well as for programmes as a whole;
- identify a range of examples of strategies which appear to have been successful in improving student progression and completion rates;
- build on and enhance these strategies;
- combine and test strategies;
- develop a methodology for enhancing student progression and achievement;
- build a network of consultants who will assist institutions in implementing the methodology.

Further details are available from: <http://www.hull.ac.uk/engprogress/> and a significant number of conference papers are available at: <http://www.hull.ac.uk/engprogress/>

The project has produced a set of practical guide books which discuss and illustrate (with case studies) approaches to improving the retention and progression of engineering students. Guides are available on the following topics:

The project has produced a set of practical guide books which discuss and illustrate with case studies approaches to improving the retention and progression of engineering students. Guides are available on the following topics:

- Design to Progress
- Communication for Retention
- Employability Strategies for Progression (mini-guide)
- Formative Assessment Strategies (mini-guide)
- Assessment Strategies and Progression
- Thinking Styles Assessment for Enhanced Progression

- Mathematics Strategies for Engineering; a Review
- Multi-media Self-Study for Learning Support in Mathematics
- Personal Development Planning for Progression
- Pre-entry Induction and Transfer Issues by Sarah Shobrook
- Pastoral Care Issues in Engineering by Donard de Cogan
- Key Skills for Progression

The guides are available from <http://www.hull.ac.uk/engprogress/>

2. The Student Transition and Retention (STAR) project was created as part of the fourth (and penultimate) strand of the Fund for the Development of Teaching and Learning (FDTL). It was based at the University of Ulster which partnered with four other HEIs; The University of Brighton, Liverpool Hope University, The University of Manchester and The University of Sunderland. The focus is upon the identification, analysis, dissemination and uptake of good practice in order to support students in their transition across learning environments. The project's underlying aim is to increase student retention, and is split into 4 themes; practices prior to entry that help prepare students for Higher Education; practices on entry (Induction) that introduce students to the academic and social life of the institution; practices which enable non-traditional students to adapt rapidly to the institutional environment; and practices that assist students to adapt to non-traditional teaching and learning organisations and methods. The project has created a large number of resources such as guides and conference papers which support the improvement of practice. Further details about the project and resources that have been created are available from: <http://www.ulster.ac.uk/star/>

3. Harvey, L. and Drew, S., 2006: The first-year experience: briefing paper on induction available at: http://www.heacademy.ac.uk/assets/York/documents/ourwork/research/literature_reviews/first_year_experience_briefing_on_induction.pdf and provides literature and institutional evidence about how to improve the first year experience via induction.

3. Peer Assisted Learning (PAL) is a scheme that fosters cross-year support between students on the same course. PAL encourages students to support each other and to learn co-operatively under the guidance of trained students, called PAL Leaders, from the year above.

At Bournemouth University PAL has five main aims and is intended to help students:

- adjust quickly to university life;
- acquire a clear view of course direction and expectations;
- develop their independent learning and study skills to meet the requirements of higher education;
- enhance their understanding of the subject matter of their course through collaborative group discussion; and

- prepare better for assessed work and examinations.

Of as much importance are the 'intangible' benefits of PAL, such as increased cohesion of the student group, reassurance about study concerns and increased confidence. PAL offers benefits to students and staff at all levels: to the School, the course, Student Leaders, as well as first year students.

Further details of PAL and its outputs are available from:
<http://pal.bournemouth.ac.uk/>

5. Harvey, L. and Drew, S., 2006: The first-year experience: briefing paper on integration available at:

http://www.heacademy.ac.uk/assets/York/documents/ourwork/research/literature_reviews/first_year_experience_briefing_on_integration.pdf

6. Crosling, G., Thomas, L. and Heagney, M. (2008) Improving student retention in higher education: the role of teaching and learning. London: Routledge, 2008. This work explores the issue of student retention in higher education, and teaching and learning approaches that encourage students to continue with their studies. Underpinned by research indicating that students are more likely to continue if they are engaged in their studies and have developed networks and relationships with their fellow students, the book exemplifies best practice of innovative and inclusive teaching and learning approaches, using case studies from a range of countries.

Literature Reviews

1. Harvey, L. and Drew, S., with Smith M., 2006, The First-Year Experience: A Review of Literature for the Higher Education Academy. York, Higher Education Academy available at:
http://www.heacademy.ac.uk/assets/York/documents/ourwork/research/literature_reviews/first_year_experience_full_report.pdf

This is an extensive review of 181 pages with 545 references. Its focus is on the first year experience, much of which is relevant to student retention and success.

2. Gorard, S., Smith, E., May, H., Thomas, L., Adnett, N. and Slack, K. (2006) Review of widening participation research: addressing the barriers to participation in higher education. A report to HEFCE by the University of York, Higher Education Academy and Institute for Access Studies. Bristol: HEFCE available at:
http://www.hefce.ac.uk/pubs/rereports/2006/rd13_06/

This is a large review of 170 pages and over 1200 pieces of work were collected as part of the process. Its focus is on the barriers to widening

participation, but includes a substantial amount of material about retention and success.

3. Pascarella, E. and Terenzini, P. (2005) How College Affects Students: A Third Decade of Research. Volume 2. San Francisco: Jossey-Bass Higher & Adult Education

This is an extensive review (848 pages) of US literature about the impacts of college on students, and much of it is highly relevant to student retention and success. In this second volume the authors review their earlier findings and then synthesise what has been learned since 1990 about college's influences on students' learning. The book also discusses the implications of the findings for research, practice, and public policy.

4. Pascarella, E. and Terenzini, P. (1991) How College Affects Students: Findings and Insights from Twenty Years of Research. San Francisco: Jossey-Bass Higher & Adult Education

This is a large review of US literature which synthesises research findings about the influence of college on students - it includes approximately 3000 references. Chapter 1 provides a detailed discussion of the evolution of research on college outcomes as an area of study, outlines the conceptual framework that guided the review, and provides a general overview of the study. Chapter 2 summarizes the major theoretical models of college effects on student change. Chapters 3 and 4 address the influence of college on learning and cognitive development including the development of generalisable intellectual skills and analytical competencies. Chapters 5 through 8 deal with the influence of college on various dimensions of personal growth and change, including aspects of students' relational systems, their self-systems, their cultural, intellectual, educational, occupational, political, social, religious values and activities, and their gender role orientations. Chapters 9 through 11 deal with the influence of college on the socioeconomic attainment process, primarily for educational, occupational and economic attainments. Chapter 12 synthesises what is known about the long-term impact of college on the quality of life, including such factors as subjective well-being, marriage, family planning, consumer activities, savings and investment behaviour, and leisure. Chapter 13 summarises the total body of evidence pertaining to what is known about the impact of college. Finally, Chapter 14 discusses implications of the evidence for institutional practice and public policy, specifically for academic and student affairs policy formation, and state and federal policy. A technical appendix addresses in detail some of the major methodological and analytical issues in assessing the influence of college on students.

Bibliography

- Action on Access (2003) Student Success in Higher Education. Bradford, Action on Access
- Astin A.W. (1984) Preventing Students from Dropping Out. Wiley: Jossey-Bass San Francisco, CA
- Avramidis, E. and Skidmore, D. (2004) Reappraising Learning Support in Higher Education, Research into Post-compulsory Education, 9.1
- Bamber, J and Tett, L., 2001, 'Ensuring integrative learning experiences for non-traditional students in higher education', Widening Participation and Lifelong Learning, 3(1), 2001, pp 8–16.
- Berger, J.B. and Braxton, J.M. (1998) 'Revising Tinto's Interactionalist Theory of Student Departure Through Theory Elaboration: Examining the role of organisational attributes in the persistence process' in Research in Higher Education, vol 39, no 2, pp103-119
- Bers, T. H. and Smith, K. E., 1991, 'Persistence of community college students: The influence of student intent and academic and social integration', Research in Higher Education, 32, pp. 539–56.
- Blasko, Z., et al. (2003) Access to what: analysis of factors determining graduate employability, Centre for Higher Education Research
- Callender, C. and Kemp, M. (2000) Changing Student Finances: income, expenditure and the take-up of student loans among full-time and part-time higher education students in 1998–99, DfEE Research Report 213. London: Department for Education and Employment.
- Comfort, H et al (2002) A Qualitative Study Investigating Factors which Help and Hinder Learning Progression FE to HE. Report on the "Transitions Project". Leicester: Leicester College.
- Crosling, G., Thomas, L. and Heagney, M. (2008) Improving student retention in higher education : the role of teaching and learning. London : Routledge
- Curtis, A. (2007) Student Retention Guide for Academic Staff. London: Roehampton University, available at:
<http://www.roehampton.ac.uk/learningandteaching/retention/Retention%20Resources%20Pack%202007.doc>
- Davies, P. (1999) Student retention in further education: a problem of quality or of student finance? Further Education Development Agency.
<http://www.leeds.ac.uk/educol/documents/00001257.doc>
- Davies, R., and Elias, P. 2002. 'Dropping Out: A Study of Early Leavers from Higher Education', Institute for Employment Research (IER) Research Brief 386 p. 47. Research Brief available at:
<http://www.dfes.gov.uk/research/data/uploadfiles/RB386.pdf>
- Dodgson, R. and Bolam, H. (2002) Student retention, support and widening participation in the north east of England. Sunderland: Universities for the North East.
<http://www.aimhigher.northeast.ac.uk/images/pubFiles/RetentionReport66.pdf> accessed 22nd March 2008
- Earwaker, J. (1992) Helping and supporting students. Buckingham, Society for Research into Higher Education and Open University Press
- European Journal of Engineering Education, 23(1), pp. 79–89.
- Feinstein, L., Duckworth, K. and Sabates, R. (2004) A model of the inter-generational transmission of educational success, Wider Benefits of

- Learning Research Report 10. London: Centre for Research on the Wider Benefits of Learning, Institute of Education
- Forsyth, A. and Furlong, A. (2003) *Losing out? Socioeconomic Disadvantage and Experience in Further and Higher Education*. Bristol: The Policy Press/JRF
- Gorard, S., Smith, E., May, H., Thomas, L., Adnett, N. and Slack, K. (2006) *Review of widening participation research: addressing the barriers to participation in higher education*. Bristol: HEFCE
- Haggis, T and Pouget, M (2002) Trying to be Motivated: perspectives on learning from younger students accessing higher education, *Teaching in Higher Education*, 7 (3) pp. 323-336
- Harvey, L., Drew, S. with Smith, M. (2006). *The first year experience: a literature review for the Higher Education Academy*. York. HE Academy.
- House of Commons Committee of Public Accounts Committee (2008) *Staying the course: the retention of students on higher education courses*. Tenth report of session 2007-8. London: The Stationery Office Ltd
- http://www.heacademy.ac.uk/assets/York/documents/events/Committee_of_Public_Accounts_report.pdf, accessed 17th March 2008
- House of Commons Select Committee on Education and Employment (2001) *Sixth report. Higher Education: Student Retention*. London: The Stationery Office www.publications.parliament.uk
- Johnston, V., 1997, 'Why do first year students fail to progress to their second year? An academic staff perspective', paper presented at British Educational Research Association Annual Conference, University of York, 11–14 September, 1997.
- <http://www.leeds.ac.uk/educol/documents/000000453.htm>
- Jones, R. and Thomas, E. (2001) Not 'just passing through': making retention work for present and future learners, *Journal of Widening Participation and Lifelong Learning*, 3(2), pp. 2–3.
- Laing, C. and Robinson, A. (2003) The Withdrawal of Non-traditional Students: developing an explanatory model, *Journal of Further and Higher Education*, 27.2
- McInnis, C. (2001) *Signs of Disengagement? The changing undergraduate experience in Australian universities*. Melbourne: Centre for the Study of Higher Education, University of Melbourne; available online at: [http://www.cshe.unimelb.edu.au/downloads/InaugLec23_8_01.pdf_\(25_July_2002\)](http://www.cshe.unimelb.edu.au/downloads/InaugLec23_8_01.pdf_(25_July_2002)).
- Morgan, M., Flanagan, R. and Kellaghan, T. (2001) *A Study of Non-Completion in Undergraduate University Courses*. Dublin: Higher Education Authority
- NAO (National Audit Office) (2002) *Improving student achievement in English higher education*. Report by the Comptroller and Auditor General. London: The Stationary Office
- NAO (National Audit Office) (2007) *Staying the course: the retention of students in higher education*. Report by the Comptroller and Auditor General. London: The Stationary Office, available from <http://www.nao.org.uk/pn/06-07/0607616.htm>
- Ozga, J. and Sukhnandan, L. (1997) *Undergraduate Non-completion in*

- Higher Education in England. Report 2. Bristol: HEFCE
- Parker, S., Naylor, P. and Warmington, P. (2005 forthcoming) Widening participation in higher education: What can we learn from the ideologies and practices of committed practitioners? *Journal of Access, Policy and Practice* 2.2
- Pascarella, E. T. and Terenzini, P. T. (1991) *How College Affects Students: findings and insights from twenty years*. San Francisco: Jossey–Bass.
- Pascarella, E. T. and Terenzini, P. T., 2005, *How college affects students: (Vol. 2): A third decade of research*. San Francisco, Jossey-Bass.
- Preece, S. and Godfrey, J. (2004) Academic Literacy Practices and widening participation: First year undergraduates on an academic writing programme, *Journal of Widening Participation and Lifelong Learning*, 6.1, pp6-14
- Quality Assurance Agency (QAA) (2008) *Outcomes from Institutional Audit Progression and Completion Statistics. Second series. Sharing good practice*. Mansfield: QAA
http://www.heacademy.ac.uk/assets/York/documents/events/QAA_Progression_and_completion_statistics.pdf, accessed 13th March 2008
- Quinn, J., Thomas, L., Slack, K., Casey, L., Thexton, W. and Noble, J. (2005) *From Life Crisis to Lifelong Learning. rethinking working class 'drop out' from higher education*. York: Joseph Rowntree Foundation
- Rhodes, C. and Nevill, A. (2004) Academic and social integration in higher education: a survey of satisfaction and dissatisfaction within a first-year education studies cohort at a new university, *Journal of Further and Higher Education*, 28.2
- Russell, M. (2008) *Leveraging student engagement with assessments: Collecting intelligence to support teaching, student progress and retention* in Crosling, G., Thomas, L. and Heagney, M. (eds) *Improving student retention in higher education : the role of teaching and learning*. London : Routledge
- Simpson, O. (2006) *Rescuing the personal tutor: Lessons in costs and benefits*, in Thomas, L. and Hixenbaugh, P. (eds) *Personal Tutoring in Higher Education*. Stoke-on-Trent: Trentham Books
- Smith, J. and Naylor, R.A. (2001) 'Dropping out of university: a statistical analysis of the probability of withdrawal for UK university students', *Journal of the Royal Statistical Society*, Vol. 164, No. 2, pp. 389–405
- Thomas, L., 2002, 'Student Retention in higher education: The role of institutional habitus'. *Journal of Education Policy*, 17(4), pp.423–42.
- Thomas, L. and Hixenbaugh, P. (eds) (2006) *Personal Tutoring in Higher Education*. Stoke on Trent: Trentham Books
- Thomas, L., and Quinn, J. (2003) *International Insights into Widening Participation*. Stoke-on-Trent: Institute for Access Studies, Staffordshire University
- Thomas, L. and Quinn, J. (2006) *First Generation Entrants in Higher Education: An international analysis*. Maidenhead: Society for Research in Higher Education and Open University Press
- Thomas, L., Quinn, J., Slack, K. and Casey, L. (2002) *Student Services:*

- Effective Approaches to Retaining Students in Higher Education. Full Research Report. Stoke on Trent: Institute for Access Studies, Staffordshire University.
<http://www.staffs.ac.uk/institutes/access/docs/SSReport.pdf>, accessed 25th March 2008
- Tinklin, T., Riddell, S. and Wilson, A (2004) Policy and provision for disabled students in higher education in Scotland and England: the current state of play, *Studies in Higher Education*, 29.5
- Tinto, V. (1993) *Leaving college: rethinking the causes and cures of student attrition*, Second Edition. Chicago: University of Chicago Press
- Tinto, V. (1998) *Learning Communities and the Reconstruction of Remedial Education in Higher Education*, Replacing Remediation in Higher Education Conference, Stamford University, Jan 26-27
- Tinto, V. (2000) *Reconstructing the first year of college*, in *Student Support Services Model Retention Strategies for Two-year Colleges*, Washington DC: Council for Opportunity in Education
- van Stolk, C., Tiessen, J., Clift, J. and Levitt, R. (2007) *Student retention in higher education courses. International comparison. Report prepared for the National Audit Office*. Cambridge: RAND Corporation.
http://www.nao.org.uk/publications/nao_reports/06-07/0607616_international.pdf, accessed 17th March 2008
- Warren, D. (2002) *Curriculum Design in a Context of Widening Participation in Higher Education*, *Arts and Humanities in Higher Education*, 1.1, pp85-89
- Warren, D. (2008) *Thinking and Writing History: an integrated approach to learning development*, in Crosling, G., Thomas, L. and Heagney, M. (eds) *Improving student retention in higher education : the role of teaching and learning*. London : Routledge
- Yorke, M. (2001) *Formative assessment and its relevance to retention*, *Higher Education Research and Development*, 20(2), pp. 115–126.
- Yorke, M. and Longden, B. (2004) *Retention and student success in higher education*. Maidenhead: SRHE and Open University Press
- Yorke, M. and Longden, B. 2007, *The first-year experience in higher education in the UK. Report on Phase 1 of a project funded by the Higher Education Academy*. York, The Higher Education Academy.
<http://www.heacademy.ac.uk/ourwork/research/surveys/fye> accessed 20th March 2008
- Yorke, M. and Longden, B. (2008) *The First Year Experience of Higher Education in the UK*. York: Higher Education Academy.
<http://www.heacademy.ac.uk/ourwork/research/surveys/fye>, accessed 20th March 2008
- Yorke, M. and Thomas, L. (2003) 'Improving the retention of students from lower socio-economic groups', *Journal of Higher Education Policy and Management*, 25.1, pp63-75
- Yorke, M. with Bell, R., Dove, A., Haslam, L., Hughes Jones, H., Longden, B., O'Connell, C., Typuszak, R. and Ward, J. (1997) *Undergraduate non-completion in England*, Report No. 1, in: *Undergraduate Non-completion in Higher Education in England*. Bristol: Higher Education Funding Council for England.

Further Reading

- Action on Access (2003) Student Success in Higher Education. Bradford, Action on Access
- Andres, L., 2001, 'Transfer from community college to university: perspectives and experiences of British Columbia students', *Canadian Journal of Higher Education*,
- Astin A.W. (1984) *Preventing Students from Dropping Out*. Wiley: Jossey-Bass San Francisco, CA
- Astin, A. W., Tsui, L. and Avalos, J. (1996) *Degree Attainment Rates at American Colleges and Universities: effects of race, gender and institutional type*. Los Angeles: Higher Education Research Institute, University of California.
- Astin, A., (1993) 'College retention rates are often misleading', *Chronicle of Higher Education*. September
- Astin, A.W., Parrott, S., Korn, W., and Sax, L., 1997, *The American Freshman: Thirty year trends, 1966-1996*. Los Angeles: Higher Education Research Institute, Graduate School of Education & Information Studies, University of California, Los Angeles.
- Avramidis, E. and Skidmore, D. (2004) *Reappraising Learning Support in Higher Education*, *Research into Post-compulsory Education*, 9.1
- Bamber, J and Tett, L., 2000, 'Transforming the learning experiences of non-traditional students: a perspective from higher education', *Studies in Continuing Education*, 22(1), pp. 57–75.
- Bamber, J and Tett, L., 2001, 'Ensuring integrative learning experiences for non-traditional students in higher education', *Widening Participation and Lifelong Learning*, 3(1), 2001, pp 8–16.
- Barke, M., Braidford, P., Houston, M., Hunt, A., Lincoln, I., Morphet, C., Stone, I. and Walker, A. (2000) *Students in the Labour Market: nature, extent and implications of term-time employment among University of Northumbria undergraduates*, Research Report 215. London: Department for Education and Skills.
- Baxter, A. and Britton, C., 2001, 'Risk, identity and change: becoming a mature student', *International Studies in Sociology of Education*, 11(1), pp 87–102.
- Beil, C., Reisen, C. A., Zea, M. C. and Caplan, R. C., 1999, 'A longitudinal study of the effects of academic and social integration and commitment on retention', *NASPA Journal*, 37, pp. 376–85.
- Benn, R. (1982) *Higher Education: Non Standard students and withdrawals*, *Journal of Further and Higher Education*, Vol. 19, No 3, p 3-12
- Berger, J.B. and Braxton, J.M. (1998) 'Revising Tinto's Interactionalist Theory of Student Departure Through Theory Elaboration: Examining the role of organisational attributes in the persistence process' in *Research in Higher Education*, vol 39, no 2, pp103-119
- Bers, T. H. and Smith, K. E., 1991, 'Persistence of community college students: The influence of student intent and academic and social integration', *Research in Higher Education*, 32, pp. 539–56.

- Billing, D., 1997, 'Induction of new students to higher education', *Innovations in Education and Training International*, 34(2), pp. 125–34.
- Blais, M. and Pulido, A.Z., 1992, 'Family, social life and leisure: cultural differences among university students in Caracas and in Montreal', *McGill Journal of Education*, 27(2), pp 150–64.
- Blasko, Z., et al. (2003) *Access to what: analysis of factors determining graduate employability*, Centre for Higher Education Research
- Blicharski, J.R.D., 'New undergraduates: access and helping them prosper', *Widening*
- Booth, A., 1997, 'Listening to students: experiences and expectations in the transition to a history degree', *Studies in Higher Education*, 22(2), pp 205–20.
- Bowl, M. (2001) *Experiencing the barriers: non-traditional students entering higher education*, *Research papers in Education*, 16.2, pp 141-160
- Braxton, J. M., Milem, J.F., and Sullivan, A.S., 2000, 'The influence of active learning on the college student departure process: toward a revision of Tinto's theory', *Journal of Higher Education*, 71(5), pp 569–90.
- Braxton, J. M., Sullivan, A. S., and Johnson, R. M., 1997, 'Appraising Tinto's theory of college student departure', in Smart, J.C. (Ed.), 1997, *Higher education: Handbook of theory and research*, volume 12 (pp. 107–64). New York: Agathon.
- Braxton, J.M. and Hirschy, A.S., 2004, 'Reconceptualizing antecedents of social integration in student departure' in Yorke, M. and Longden, B. (Eds.), 2004, *Retention and Student Success in Higher Education*, pp. 89–102. Buckingham, Open University Press and Society for Research into Higher Education.
- Braxton, J.M. and Hirschy, A.S., 2004, 'Reconceptualizing antecedents of social
- Braxton, J.M., (Ed.), 2000, *Reworking the Student Departure Puzzle*. Vanderbilt Issues in Higher Education series. Nashville, Tennessee: Vanderbilt University Press.
- Britton, C. and Baxter, A., 1999, 'Becoming a mature student: gendered narratives of the self'. *Gender and Education*, 11(2), pp. 179–93.
- Callender, C. and Kemp, M. (2000) *Changing Student Finances: income, expenditure and the take-up of student loans among full-time and part-time higher education students in 1998–99*, DfEE Research Report 213. London: Department for Education and Employment.
- Christie, N.G. and Dinham, S.M., 1991, 'Institutional and external influences on social integration in the freshman year', *Journal of Higher Education*, 62(4), pp 412–36.
- Clarke, J.A. (1998) *Students' Perceptions of Different Tertiary Learning Environments*, *Higher Education Research & Development*, 17 (1), 107-117
- Comfort, H et al (2002) *A Qualitative Study Investigating Factors which Help and Hinder Learning Progression FE to HE*. Report on the "Transitions Project". Leicester: Leicester College.
- Cooke, R. Bewick, B.M., Barkham, M., Bradley, M and Audin, K. (in press), 'Measuring, monitoring and managing the psychological well-

- being of first year university students', *British Journal of Guidance and Counselling*.
- Cooke, R., Barkham, M., Audin, K., Bradley, M. and Davy, J., 2004, 'Student debt and its relation to student mental health', *Journal of Further and Higher Education*, 28, pp.395–405.
- Crosling, G., Thomas, L. and Heagney, M. (2008) *Improving student retention in higher education : the role of teaching and learning*. London : Routledge
- Crozier, W.R., and Garbert-Jones, A., 1996, 'Finding a voice: shyness in mature students' experience of university', *Adults Learning*, 7(8), pp 195–98.
- Curtis, A. (2007) *Student Retention Guide for Academic Staff*. London: Roehampton University, available at:
<http://www.roehampton.ac.uk/learningandteaching/retention/Retention%200Resources%20Pack%202007.doc>
- Cuseo, J.B., undated, 'Academic-Support Strategies for Promoting Student Retention & achievement During The First-Year of College' Marymount College, California. Available at
http://www.ulster.ac.uk/star/resources/acdemic_support_strat_first_years.pdf
- Davies, P. (1999) *Student retention in further education: a problem of quality or of student finance?* Further Education Development Agency.
<http://www.leeds.ac.uk/educol/documents/00001257.doc>
- Davies, R. and Elias, P. (2003) *Dropping Out: A Study of Early Leavers from Higher Education*. London: DfES
- Davies, R., and Elias, P. 2002. 'Dropping Out: A Study of Early Leavers from Higher Education', Institute for Employment Research (IER) Research Brief 386 p. 47. Research Brief available at:
<http://www.dfes.gov.uk/research/data/uploadfiles/RB386.pdf>
- Dennis, K.S., 2000, 'Faculty behaviour and other key factors in student adjustment to medical school', *Advances in Health Sciences Education*, 5(1), pp. 55–69.
- Dibben, N. (2004) *The influence of socio-economic background on student experience of teaching and learning in a British University Music Department*, *British Journal of Music Education*
- Dodgson, R. and Bolam, H. (2002) *Student retention, support and widening participation in the north east of England*. Sunderland: Universities for the North East.
<http://www.aimhigher.northeast.ac.uk/images/pubFiles/RetentionReport66.pdf> accessed 22nd March 2008
- Dogra, N., Conning, S., Gill, P., Spencer, J. and Turner, M. (2004) *The teaching of 'cultural diversity' in medical schools in the UK and Eire*, University of Leicester
- Dowaliby, F. J., Garrison, W. M. and Dagel, D., 1993, 'The student integration survey: development of an early alert assessment and reporting system', *Research in Higher Education*, 34(4), pp, 513–31.
- Drew, S., 2001, 'Student perceptions of what helps them learn and develop in higher education', *Teaching in Higher Education*, 6(3), pp. 309–31.

- Earwaker, J. (1992) Helping and supporting students. Buckingham, Society for Research into Higher Education and Open University Press
- European Journal of Engineering Education, 23(1), pp. 79–89.
- Evans, C. (1990) Teaching the Humanities: seminars as metalogues, *Studies in Higher Education*, 15 (3), 287-297
- Factors affecting student retention Paul Martinez. Further Education Development Agency. 1995. Mendip Paper No 84. £5.00
- Feinstein, L., Duckworth, K. and Sabates, R. (2004) A model of the inter-generational transmission of educational success, *Wider Benefits of Learning Research Report 10*. London: Centre for Research on the Wider Benefits of Learning, Institute of Education
- Fernandes, C., 2004, 'How emotional intelligence explains students' life satisfaction, physical ill-health and academic achievement', paper presented at the European Conference on Educational Research, University of Crete, 22–25 September, 2004.
- Flaga, C., 2006, 'The process of transition for community college transfer students', *Community College Journal of Research and Practice*, 30(1), pp. 3–19.
- Forsyth, A. and Furlong, A. (2003) *Losing out? Socioeconomic Disadvantage and Experience in Further and Higher Education*. Bristol: The Policy Press/JRF
- Foskett, N. (2002) *Marketing Imperative or Cultural Challenge? Embedding Widening Participation in the Further Education Sector*, *Research into Post-compulsory Education*, 7.1
- Fuller, M., Healey, M., Bradley, A. and Hall, T. (2004) *Barriers to learning: a systematic study of the experience of disabled students in one university*. *Studies in Higher Education*, 29.3, pp303-318
- General Medical Council. *Tomorrow's Doctors*. London: General Medical Council, 1993
- George, J., Cowan, J., Hewitt, L. and Cannell, P. (2004) *Failure dances to the tune of insecurity; affective issues in the assessment and evaluation of access learning*, *Journal of Access, Policy and Practice*, 1.2
- Getzlaf, S. B., Sedlacek, G. M., Kearney, K. A. and Blackwell, J. M. , 1984, 'Two types of voluntary undergraduate attrition: An application of Tinto's model', *Research in Higher Education*, 20(3), pp. 257ff
- Goldfinch, J (1996) *The Effectiveness of School-type Classes Compared to the Traditional Lecture/Tutorial Method for Teaching Quantative Methods to Business Students*, *Studies in Higher Education*, 21 (2), pp. 207-220
- Goldman, B.A. and Gillis, J.H., 1989, 'Graduation and attrition rates: a closer look at influence', *Journal of The Freshman Year Experience*, 1(1), pp. 56–7
- Gorard, S., Smith, E., May, H., Thomas, L., Adnett, N. and Slack, K. (2006) *Review of widening participation research: addressing the barriers to participation in higher education*. Bristol: HEFCE
- Grayson, J.P., 1994, 'First year science in a commuter university: where to intervene', *Canadian Journal of Higher Education*, 24(2), pp. 16–42.
- Grayson, J.P., 2003, 'The consequences of early adjustment to university', *Higher Education*, 46(4), pp. 411–29,

- Haggis, T and Pouget, M (2002) Trying to be Motivated: perspectives on learning from younger students accessing higher education, *Teaching in Higher Education*, 7 (3) pp. 323-336
- Hargreaves, D.J., 1998, 'Addressing the transition to tertiary education in engineering',
- Harrington, H., O'Donoghue, A., Gallagher, M. and Fitzmaurice, D., 2001, The first year experience: An insight into non-completion. Report compiled for Student Counselling Service, Trinity College, Dublin.
- Harvey, L., Drew, S. with Smith, M. (2006). The first year experience: a literature review for the Higher Education Academy. York. HE Academy.
- Hellmundt, S. et al (1998) Enhancing Intercultural Communication among Business Communication Students, *Higher Education Research & Development*, 17 (3), pp. 333-344
- Heubeck, B. and Latimer, S. (2002) Ability and achievement characteristics of Australian university students with self-reported specific learning disabilities, *Higher Education Research and Development*, 21.3
- Hope, V. and Sebastian, A. (2000) Inclusivity workshops for first year engineering students, in Thomas, L. and Cooper, M. (eds) *Changing the Culture of the Campus: Towards an inclusive higher education*. Stoke-on-Trent: Staffordshire University Press
- House of Commons Committee of Public Accounts Committee (2008) *Staying the course: the retention of students on higher education courses*. Tenth report of session 2007-8. London: The Stationery Office Ltd
- http://www.heacademy.ac.uk/assets/York/documents/events/Committee_of_Public_Accounts_report.pdf
- House of Commons Select Committee on Education and Employment (2001) Sixth report. *Higher Education: Student Retention*. London: The Stationery Office www.publications.parliament.uk
- Husbands, C.T. (1996) Variations in students' evaluations of teachers' lecturing and small-group teaching, *Studies in Higher Education*, 22, 187-206
- integration in student departure' in Yorke, M. and Longden, B. (Eds.), 2004, *Retention and Student Success in Higher Education*, pp. 89–102. Buckingham, Open University Press and Society for Research into Higher Education.
- Jackson, S., Ajayi, S. and Quigley, M., 2003, *By degrees: the first year: from care to university*. London: National Children's Bureau.
- Johnes, J. (1990) 'Determinants of student wastage in higher education' in *Studies in Higher Education*, Vol. 15, no. 1, pp 87-100
- Johnes, J. and Taylor, J. (1991) 'Non-completion on a degree course and its effect on the subsequent experience of non-completers in the labour market', *Studies in Higher Education*, Vol. 16, No. 1, pp. 73–81
- Johnson, G.C. and Watson G., 2004, "Oh gawd how am I going to fit into this?": Producing (Mature) First-Year Student Identity'. *Language and Education*, 18. (6), pp.474–86.
- Johnston, V., 1997, 'Why do first year students fail to progress to their second year? An academic staff perspective', paper presented at British Educational Research Association Annual Conference, University of

- York, 11–14 September, 1997.
<http://www.leeds.ac.uk/educol/documents/000000453.htm>
- Johnston, V., 1999, 'An analysis of factors influencing Undergraduate Progression in the First Year in a Scottish New University', International Conference for the First Year Student Experience, Bath 1999.
- Johnston, V., 2000, Identifying students at risk of non-progression: the development of a diagnostic test, MPhil thesis, Napier University, Edinburgh, Scotland.
- Johnston, V., 2001, The progression of Napier students through the first year of the modular course. Edinburgh, Napier University, Student Retention Project.
- Jones, P.J. and Abramson, M., 2001, 'Getting students off to a flying start: improving the retention of advanced GNVQ students entering higher education', *Widening Participation and Lifelong Learning*, 3(2) pp. 34–37,
- Jones, R. and Thomas, E. (2001) Not 'just passing through': making retention work for present and future learners, *Journal of Widening Participation and Lifelong Learning*, 3(2), pp. 2–3.
- Jones, R. and Thomas, L. (2005) The 2003 UK Government Higher Education White Paper: A critical assessment of its implications for the access and widening participation agenda, *Journal of Educational Policy* 20(5), pp615-630
- Keenan, C. (2008) Students getting down to work before they start at university: a model for improving retention, in Crosling, G., Thomas, L. and Heagney, M. (eds) *Improving student retention in higher education : the role of teaching and learning*. London : Routledge
- Kember, D., Lee, K. and Li, N., 2001, 'Cultivating a sense of belonging in part-time students', *International Journal of Lifelong Education*, 20(4), pp. 326–41.
- Knighton, T. (2002) 'Postsecondary participation: the effects of parents' education and household income', *Education Quarterly Review*, Vol. 8, No. 3, pp. 25–32
- Knox, H., 2005, 'Making the transition from further to higher education: the impact of a preparatory module on retention, progression and performance', *Journal of Further and Higher Education*, May 2005, 29(2), pp. 103–10, .
- Krause, K.L., 2001, 'The university essay writing experience: a pathway for academic integration during transition', *Higher Education Research and Development*, 20(2), pp. 147–68.
- Laing, C. and Robinson, A. (2003) The Withdrawal of Non-traditional Students: developing an explanatory model, *Journal of Further and Higher Education*, 27.2
- Lawrence, J., 2001, 'Academics and first-year students: collaborating to access success in an unfamiliar university culture', *Widening Participation and Lifelong Learning*, 3(3), 2001, pp. 4–14.
- Layer, G., Srivastava, A. and Stuart, M. (2002) Achieving student success, in *Student Success in Higher Education*. Bradford: Action on Access
- Leask, B. (2008) Internationalisation of the curriculum in an interconnected world in Crosling, G., Thomas, L. and Heagney, M. (eds)

- Improving student retention in higher education : the role of teaching and learning. London : Routledge
- Leftwich, A (1987) Room for Manoeuvre: a report on experiments in alternative teaching and learning methods in politics, *Studies in Higher Education*, 12 (3)
- Leroux, J.Y., 1997, 'France: first cycle university courses in the context of mass higher education', *Higher Education Management*, 9(1), 1997, pp. 117–26.
- Liow, S.R. (1993) Course Design in Higher Education: a study of teaching methods and educational objectives, *Studies in Higher Education*, 18 (1), 65-79
- Longden, B. (2000) Élitism to Inclusion - Some Developmental Tensions, *Educational Studies*, 26.4, pp455-474
- Longden, B. (2003) 'Retention rates – renewed interest but whose interest is being served?', *Research Papers in Education*, Vol. 17, No. 1, pp. 3–29
- Lowe, H. and Cook, A., 2003. 'Mind the Gap: are students prepared for higher education?', *Journal of Further and Higher Education*, 27(1), pp. 53–76.
- Lynch, K. (1999) *Equality in Education*. Dublin: Gill and Macmillan
- Mackie, S., 1998, 'Jumping The Hurdles', paper presented at Higher Education Close Up Conference (Department of Educational Research, Lancaster University; Department of Education Studies, University of Central Lancashire), 6–8 July, 1998.
<http://www.leeds.ac.uk/educol/documents/000000689.doc> 22
- Mackie, S.E., 2001, 'Jumping the hurdles-undergraduate student withdrawal behaviour', *Innovations in Education and Teaching International*, 38(3), pp. 265–76.
- Marks, A. (2000) Lifelong Learning and the 'Breadwinner Ideology': addressing the problems of lack of participation by adult, working-class males in higher education on Merseyside, *Educational Studies*, 26.3, pp303-319
- Marks, A. (2002) A 'grown up' university? Towards a manifesto for lifelong learning, *Journal of Educational Policy*, 17.1, pp1-11
- Martinez, P. (1997) *Improving student retention: a guide to successful strategies*. Further Education Development Agency. 1997. ISBN 1 85338 453 4. £15.00
- Martinez, P. (1997) *Student retention: case studies of strategies that work* Further Education Development Agency. FE Matters Paper Vol 1 No 6. ISSN 1361 9977 £7.50
- Martinez, P. (1998) *Staff development for student retention in further and adult education*. Further Education Development Agency.
- McDonough, P. (1996) *Choosing Colleges: How social class and schools structure opportunity*. New York: State University of New York Press
- McGivney, V. (1996) *Staying or leaving the course: retention and non completion of mature students in further and higher education*. Leicester: NIACE
- McInnis, C. (2001) *Signs of Disengagement? The changing undergraduate experience in Australian universities*. Melbourne: Centre

- for the Study of Higher Education, University of Melbourne; available online at: [http://www.cshe.unimelb.edu.au/downloads/InaugLec23_801.pdf_\(25 July 2002\)](http://www.cshe.unimelb.edu.au/downloads/InaugLec23_801.pdf_(25_July_2002)).
- McInnis, C., Hartley, R., Polesel, J. and Teese, R. (2000) Non-completion in Vocational Education and Training and Higher Education, REB Report 4/00. Canberra: Department of Education, Training and Youth Affairs.
- McKinney, K and Graham-Buxton, M (1993) The Use of Collaborative Learning Groups in the Large Class, *Teaching Sociology*, 21 (October), pp. 403-408
- Moerkamp, T., Voncken, E. and Brown, A., 1999, 'Facilitating progression to higher education from vocational paths', *European Journal of Education*, 34(2), pp. 219–35.
- Mooney, S.P and others, 1991, 'Academic Locus of Control, Self-Esteem, and Perceived Distance from Home as Predictors of College Adjustment' *Journal of Counseling and Development*; 69(5), pp. 445–48.
- Morgan, M., Flanagan, R. and Kellaghan, T. (2001) *A Study of Non-Completion in Undergraduate University Courses*. Dublin: Higher Education Authority
- Murphy, M. 2002 'Creating New Demand? The Development of Out-reach Access Initiatives in Higher Education', *Research into Post Compulsory Education* 7(3).
- NAO (National Audit Office) (2002) *Improving student achievement in English higher education*. Report by the Comptroller and Auditor General. London: The Stationary Office
- NAO (National Audit Office) (2007) *Staying the course: the retention of students in higher education*. Report by the Comptroller and Auditor General. London: The Stationary Office
- Napoli, A. R. and Wortman, P. M., 1996, 'A meta-analysis of the impact of academic and social integration on persistence of community college students', *Journal of Applied Research in the Community College*, 4, pp. 5–21.
- Nardi, E., 2001, 'The transition from school to university in Italy: examination reform and outstanding issues', *Assessment in Education*, 8(3), pp. 339–51,
- Need, A. and De Jong U., 2001, 'Do local study environments matter? A multilevel analysis of the educational careers of first-year-university students', *Higher Education in Europe*, 26(2), pp. 263–78.
- Noble, J. (2004) *Student responses to early leaving* www.staffs.ac.uk/institutes/access/docs/28604uk2.doc, accessed 15/07/05
- O'Connor, T. , Richards , D.and Lumsden, L.(no date) *A Multilevel and Integrated Approach to Student Retention at Trinity College Dublin*. Dublin, Student Counselling Service, Trinity College. Available at http://www.tcd.ie/Student_Counselling/docs/RetentionColloquiumPaper.pdf, accessed 18 January, 2006.
- O'Connor, T., Richards, D., Lumsden, L., (undated), *A Multi-Level and Integrated orienting students to college*. Second edition. Columbia, SC : National Orientation
- Ozga, J. and Sukhnandan, L. (1997) *Undergraduate Non-completion in*

- Higher Education in England. Report 2. Bristol: HEFCE
- Ozga, J. and Sukhnandan, L. (1998) 'Undergraduate Non-Completion: Developing an Explanatory model Higher Education Quarterly, 52(3) pp316-333 Blackwell: Oxford
- Pantages, T.J. and Creedan, C.F., 1978, 'Studies of college attrition: 1950–1975', *Review of Educational Research*, 48, pp. 49–101
- Parker, S., Naylor, P. and Warmington, P. (2005 forthcoming) Widening participation in higher education: What can we learn from the ideologies and practices of committed practitioners? *Journal of Access, Policy and Practice* 2.2
- Pascarella, E. T. and Chapman, D. W., 1983, 'Validation of a theoretical model of college withdrawal: interaction effects in a multi-institutional sample', *Research in Higher Education*, 19, pp. 25–48.
- Pascarella, E. T. and Terenzini, P. T. (1991) *How College Affects Students: findings and insights from twenty years*. San Francisco: Jossey–Bass.
- Pascarella, E. T. and Terenzini, P. T., 2005, *How college affects students: (Vol. 2): A third decade of research*. San Francisco, Jossey-Bass.
- Paxton, M., 2001, 'Ways in which students gain access to university discourses: the intersection of the academic curriculum with student voices', paper Rego, A. and Fernandes, C., 2004, 'How emotional intelligence explains students' life satisfaction, physical ill-health and academic achievement', paper presented at the European Conference on Educational Research, University of Crete, 22–25 September, 2004.
- Preece, S. and Godfrey, J. (2004) Academic Literacy Practices and widening participation: First year undergraduates on an academic writing programme, *Journal of Widening Participation and Lifelong Learning*, 6.1, pp6-14
- Prendergast, G (1994) Student Centred Learning in the large class setting, *Journal of Further and Higher Education*, 18 (3)
- Quality Assurance Agency (QAA) (2008) *Outcomes from Institutional Audit Progression and Completion Statistics. Second series. Sharing good practice*. Mansfield: QAA
http://www.heacademy.ac.uk/assets/York/documents/events/QAA_Progression_and_completion_statistics.pdf, accessed 13th March 2008
- Quinn, J. (2004) 'Understanding working-class "drop-out" from higher education through a socio-cultural lens: cultural narratives and local contexts', *International Studies in Sociology of Education*, Vol. 14, No. 1, pp. 57–75
- Quinn, J., Thomas, L., Slack, K., Casey, L., Thexton, W. and Noble, J. (2005) *From Life Crisis to Lifelong Learning. rethinking working class 'drop out' from higher education*. York: Joseph Rowntree Foundation
- Ramsay, S. et al (1999) Academic Adjustment and Learning Processes: a comparison of international and local students in first-year university, *Higher Education Research & Development*, 18 (1), 129-144
- Reay, D., 1998, "Always knowing" and "never being sure": institutional and familial habituses and higher education choice', *Journal of Education Policy*, 13(4), pp. 519–29.

- Reay, D., Davies, J., David, M. and Ball, S.J., 2001, 'Choices of degree or degrees of choice? Class, race and the higher education process', *Sociology*, 35(4), pp. 855–70.
- Rhodes, C. and Nevill, A. (2004) Academic and social integration in higher education: a survey of satisfaction and dissatisfaction within a first-year education studies cohort at a new university, *Journal of Further and Higher Education*, 28.2
- Riddell, S., Tinklin, T. and Wilson, A. (2004) *Disabled Students and Multiple Policy Innovations in Higher Education - Final Report*. ESRC
- Ridley, D., 2004, *Research Report: Learning Support for International Students*. Sheffield Hallam University, Student Services Centre.
- Roueche, J. E., Baker, G. A., and Roueche, S. D., 1984, *College Responses to Low- Achieving Students: A national study*. New York, HBJ Media Systems.
- Russell, M. (2008) *Leveraging student engagement with assessments: Collecting intelligence to support teaching, student progress and retention* in Crosling, G., Thomas, L. and Heagney, M. (eds) *Improving student retention in higher education : the role of teaching and learning*. London : Routledge
- Sander, P. et al (2000) *University Students' Expectations of Teaching*, *Studies in Higher Education*, 25 (3), 309-323
- Sha Tao, Qi Dong, Pratt, M.W., Hunsberger, B., Pancer, S.M., 2000, 'Social Support: Relations to Coping and Adjustment During the Transition to University in the People's Republic of China', *Journal of Adolescent Research*, 15(1), pp.123–44.
- Sharp, K. and Earle, S. (2000) *Assessment, disability and the problem of compensation*, *Assessment and Evaluation in Higher Education*, 25.2
- Sheppard, C. and Gilbert, J. (1991) *Course design, teaching method and student epistemology*, *Higher Education*, 22, pp. 229-249
- Simpson, O. (2005) *The costs and benefits of student retention for students, institutions and governments*. *Studies in Learning, Evaluation Innovation and Development*, 2 (3). pp. 34-43. ISSN 1832-2050
- Simpson, O. (2006) *Rescuing the personal tutor: Lessons in costs and benefits*, in Thomas, L. and Hixenbaugh, P. (eds) *Personal Tutoring in Higher Education*. Stoke-on-Trent: Trentham Books
- Small, J.J., 1966, *Achievement and Adjustment in the First Year at University* (Educational research series). Wellington, New Zealand Council for Educational Research, OCLC: 5073271. ASIN: B0007J7IG8.
- Smith, J. and Naylor, R.A. (2001) 'Dropping out of university: a statistical analysis of the probability of withdrawal for UK university students', *Journal of the Royal Statistical Society*, Vol. 164, No. 2, pp. 389–405
- Srivastava, A. (2002) *Good practice in staff development for the retention of students from groups under-represented in higher education*, *Journal of Widening Participation and Lifelong Learning*, 4(1), pp. 14–21.
- Stage, F. and Anya, G., 1996, 'A transformational view of college student research', in Stage, F., Anya, G, Bean, J., Hossler, D. and Kuh, G. (Eds.) *College Students: The evolving nature of research*. Boston, Pearson Custom Publishing.
- Stage, F. K., 1989, 'Motivation, academic and social integration, and the

- early dropout', *American Educational Research Journal*, 26, pp. 385–402.
- 23
- Stevens, C.D and Walker. B.M., 1996, 'How residential college students adjust socially and emotionally to first year university', *Higher Education Research & Development*, 15(2), pp. 201–21.
- Sullivan, A. V. S., 1997, 'Rites and passages: students' views of academic and social integration', *College Student Affairs Journal*, 16(2), pp. 4–14.
- Sutcliffe, R et al (1999) *Active Learning in a Large First Year Biology Class: A Collaborative Resource-Based Study Project on AIDS in 'Science and Society'*, *Innovations in Education and Training International*, 36 (1), p. 53-64
- Terenzini, P. T., Rendon, L. I., Upcraft, M. L, Millar, S. B., Allinson, K.W., Gregg, P.L. and Jalomo, R., 1994, 'The transition to college: diverse students, diverse stories', *Research in Higher Education*, 35(1), pp. 57–73.
- Thomas, K., 1988, 'Gender and the arts/science divide in higher education', *Studies in Higher Education*, 13(2), pp 123–37.
- Thomas, L. (2002) 'Student retention in Higher Education: the role of institutional habitus', *Journal of Educational Policy*, Vol. 17, No. 4, pp. 423–32
- Thomas, L. and Hixenbaugh, P. (eds) (2006) *Personal Tutoring in Higher Education*. Stoke on Trent: Trentham Books
- Thomas, L. and Quinn, J. (2006) *First Generation Entrants in Higher Education: An international analysis*. Maidenhead: Society for Research in Higher Education and Open University Press
- Thomas, L., 2002, 'Student Retention in higher education: The role of institutional habitus'. *Journal of Education Policy*, 17(4), pp.423–42.
- Thomas, L., and Quinn, J. (2003) *International Insights into Widening Participation*. Stoke-on-Trent: Institute for Access Studies, Staffordshire University
- Thomas, L., May, H., Hatt, S. and Elliott, T. (2006) *Smoothing the transition*, *Exchange Magazine*
http://www.heacademy.ac.uk/resources/detail/resources/publications/web0189_exchange_1_thomas_may_hatt_elliott
- Thomas, L., Quinn, J., Slack, K. and Casey, L. (2002) *Student Services: Effective Approaches to Retaining Students in Higher Education*. Full Research Report. Stoke on Trent: Institute for Access Studies, Staffordshire University.
<http://www.staffs.ac.uk/institutes/access/docs/SSReport.pdf>
- Thomas, L., Woodrow, M. and Yorke, M. (2002) 'Access and Retention', in Layer, G. et al (eds) *Student Success in Higher Education*. Bradford: Action on Access
- Tierney, W.G., 1992. 'An anthropological analysis of student participation in college', *Journal of Higher Education*, 63(6), pp. 603–18.
- Tinklin, T., Riddell, S. and Wilson, A (2004) *Policy and provision for disabled students in higher education in Scotland and England: the current state of play*, *Studies in Higher Education*, 29.5
- Tinto, V. (1975) 'Dropout from Higher education: a theoretical synthesis of

- recent research' in *Review of Education Research* 45 pp89-125
- Tinto, V. (1993) *Leaving college: rethinking the causes and cures of student attrition*, Second Edition. Chicago: University of Chicago Press
- Tinto, V. (1997) 'Classrooms as communities: Exploring the educational character of student persistence', in *Journal of Higher Education*, vol 68, no 6, pp599-623
- Tinto, V. (1998) *Learning Communities and the Reconstruction of Remedial Education in Higher Education*, Replacing Remediation in Higher Education Conference, Stamford University, Jan 26-27
- Tinto, V. (2000) *Reconstructing the first year of college*, in *Student Support Services Model Retention Strategies for Two-year Colleges*, Washington DC: Council for Opportunity in Education
- United States Department of Education, 2001, *High School Academic Curriculum and the Persistence Path through College: Persistence and Transfer Behavior of Undergraduates 3 Years after entering four-year Institutions (NCES 2001-163)*. Washington, DC., National Center for Educational Statistics.
- van Stolk, C., Tiessen, J., Clift, J. and Levitt, R. (2007) *Student retention in higher education courses. International comparison. Report prepared for the National Audit Office*. Cambridge: RAND Corporation.
http://www.nao.org.uk/publications/nao_reports/06-07/0607616_international.pdf
- Wakeford, N., 1994, 'Becoming a mature student: the social risks of identification', *Journal of Access Studies*, 9(2), pp. 241–56.
- Wallace, J. (2003) *Supporting the First Year Experience*, London Metropolitan University,
http://www.heacademy.ac.uk/embedded_object.asp?id=18998&prompt=yes&filename=CPD028
- Ward-Roof, J.A and Hatch, C. (Eds.), 2003, *Designing Successful Transitions: A guide for orienting students to college*. Second edition. Columbia, SC : National Orientation Directors Association : National Resource Center for the First-Year Experience & Students in Transition, University of South Carolina.
- Warren, D. (2002) *Curriculum Design in a Context of Widening Participation in Higher Education*, *Arts and Humanities in Higher Education*, 1.1, pp85-89
- Warren, D. (2003) *Improving student retention: A team approach*, Annual Conference of the Institute for Learning and Teaching in HE, University of Warwick, Coventry, 2-4 July 2003
- Warren, D. (2008) *Thinking and Writing History: an integrated approach to learning development*, in Crosling, G., Thomas, L. and Heagney, M. (eds) *Improving student retention in higher education : the role of teaching and learning*. London : Routledge
- Widmar, G. E., 1994, 'Supplemental instruction: from small beginnings to a national Program', in Martin, D.C and Arendale, D.R., (Eds.), *Supplemental Instruction: Increasing achievement and retention*, pp. 3–10.
- Wintre, M.G. and Yaffe, M., 2000, 'First-year students' adjustment to university life as a function of relationships with parents', *Journal of*

- Adolescent Research, 15(1), pp. 9–37.
- Wintre, M.G., Bowers, C., Gordner, N. and Lange L., 2006, 'Re-Evaluating the University Attrition Statistic: A Longitudinal Follow-Up Study', *Journal of Adolescent Research*, 21(2), pp. 111–32
- Woodfield, R., 2002, *Student Perceptions of the First Year Experience of Universit 2000/2001 – Results from a Qualitative Email Survey*. Falmer; University of Sussex.
- Woodrow, M. with Lee, M.F., McGrane, J., Osborne, B., Pudner, H. and Trotman, C. (1998) *From Elitism to Inclusion: Good practice in widening access to higher education*. London: Universities UK.
- Woodrow, M., Yorke, M., Lee, M.F., McGrane, J., Osborne, B., Pudner, H. and Trotman, C (2002) *Social class and participation: good practice in widening access to higher education: Universities UK*.
- Yorke, M. (1999) *Leaving Early: undergraduate non-completion in higher education*. London: Falmer.
- Yorke, M. (2001) *Formative assessment and its relevance to retention*, *Higher Education Research and Development*, 20(2), pp. 115–126.
- Yorke, M. (2001) *Outside benchmark expectations? Variation in non-completion rates in English higher education*, *Journal of Higher Education Policy and Management*, 23(2), pp. 148–158.
- Yorke, M. and Longden, B., 2004, *Retention and Student Success in Higher Education*, Maidenhead, UK, Society for Research into Higher Education and Open University
- Yorke, M. and Longden, B., 2007, *The first-year experience in higher education in the UK. Report on Phase 1 of a project funded by the Higher Education Academy*. York, The Higher Education Academy.
<http://www.heacademy.ac.uk/ourwork/research/surveys/fye>
- Yorke, M. and Longden, B. (2008) *The First Year Experience of Higher Education in the UK*. York: Higher Education Academy.
<http://www.heacademy.ac.uk/ourwork/research/surveys/fye>
- Yorke, M. and Thomas, L. (2003) 'Improving the retention of students from lower socio-economic groups', *Journal of Higher Education Policy and Management*, 25.1, pp63-75
- Yorke, M. with Bell, R., Dove, A., Haslam, L., Hughes Jones, H., Longden, B., O'Connell, C., Typuszak, R. and Ward, J. (1997) *Undergraduate non-completion in England, Report No. 1*, in: *Undergraduate Non-completion in Higher Education in England*. Bristol: Higher Education Funding Council for England.
- Young, R.W., 1982, 'Seventeen year graduation study of 1963 freshmen at the University of New Mexico', *College and University*, 57(3), 279–88.
- Zea, M. C., Reisen, C. A., Beil, C. and Caplan, R. D., 1997, 'Predicting intention to remain in college among ethnic minority and nonminority students', *Journal of Social Psychology*, 137, pp. 149–160.