

Improving Student Retention: Guidelines and Good Practice

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Summary

This document has been published by SCoR to help in the development of strategies which can be used to maximise student retention. A number of risk factors which impact on retention rates are identified and discussed. Most of the guidelines presented in this document are common sense approaches to retention and many are being widely used across the UK. Through the sharing of experiences, initiatives and good practice the SCoR hope that retention of radiography students may be maximised.

Foreword

The Society and College of Radiographers (SCoR) publishes this guidance and advice document to help in the development of strategies which can be used to maximise student retention. A number of risk factors which impact on retention rates are identified and discussed. Most of the guidelines presented in this document are common sense approaches to retention and many are being widely used across the UK. Through the sharing of experiences, initiatives and good practice the SCoR hope that retention of radiography students may be maximised.

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1. Introduction

1.1 The guidelines presented in this document reiterate many of the strategies and good practice initiatives already in place in most, if not all, universities which offer radiography education programmes. The intention of the document is to look at a number of identified risk factors which impact on retention rates, to identify within each of those factors certain retention goals and to provide guidelines supported by evidence from a range of healthcare professional and other Higher Education (HE) courses. Evidence from the nursing and medical literature in particular provides some useful pointers which may or may not be applicable to radiography. Case studies provide and explain how some radiography programmes and other HE programmes have tackled particular risk factors. Through the sharing of these experiences, initiatives and good practice the SCoR hope that retention of radiography students may be maximised.

Most of the guidelines presented in this document are generally common sense approaches to retention and many are being widely used across the UK; they are reiterated here together with background evidence which may facilitate discussion and consideration. In addition, case studies may stimulate further ideas and possible suggestions: these guidelines therefore are intended to help in the development of strategies which can be specific to local circumstances.

1.2 Several key documents have informed this document:

a. Student Recruitment and Retention Guide for Diagnostic and Therapeutic Radiography SW London SHA Feb 2006

b. Managing attrition rates for student nurses and midwives: a guide to good practice for SHAs and HEIs Sept 2006 DH

c. National Audit Office (NAO) Staying the Course: the Retention of Students in Higher Education: 2007. TSO London

d. House of Commons Committee of Public Accounts Staying the course: the retention of students on higher education courses Tenth report of session 2007-08 HC 322 TSO: London

e. The CoR Approval and Accreditation Board Annual Report, for academic year 2007-2008

Furthermore, an extensive reference and bibliography section is provided.

1.3 Some confusion may arise from the various terms used in relation to non-completion of courses by students and the ways in which numbers are collected and calculated. To try and make meaningful comparisons between Higher Education Institutions (HEI) in the UK, the Higher Education Statistics Agency (HESA) calculates a retention benchmark for each institution based on continuation rate of the sector, adjusted for the entry qualifications and study subjects (NAO 2007). The SCoR calculates attrition by subtracting the number of students in a cohort who graduated 3 years (4 in Scotland) after their course start date, from the number who originally started the course. See Appendix 3 of the Approvals and Accreditation Board (AAB) annual report for academic year 2007-08 which reports outputs for years 2005, 2006, 2007 and 2008 (CoR 2009).

1.4 Tinto's work in the USA (Tinto 1975, 1982, 1993, 1999, 2005) has to be regarded as seminal in the field of attrition from Higher Education and has influenced many other researchers in the UK and beyond.

2. Retention - the national picture

2.1 According to the Public Accounts Committee report (2007-08), around 28,000 full time and 87,000 part-time students who commenced first degree courses in 2004-05 were no longer in higher education a year later. Among full time students starting in 2004-05, 91.6% entered the second year of study and 78.1% were expected to complete their courses. However, there remains a performance gap on retention rates between universities.

2.2 Yorke and Longden (2004) suggest that some matters relating to student retention are primarily under institutional control, whereas others are for students to take in hand.

2.3 Johnes and McNabb (2004) have indicated that the main reasons for attrition from HE courses in the UK are academic failure (involuntary attrition) and voluntary dropout.

While looking at the wider international picture, Yorke and Longden (2004) have identified 4 broad reasons why students leave which are:

- (i) flawed decision making in initial choice of course
- (ii) events impacting on students' lives outside the institution
- (iii) students' experience of the course and the institution
- (iv) failure to cope with the academic demands.

2.4 As early as 2003, Yorke observed that while there was an increasing level of understanding relating to retention and completion, the need for institutions is for reflective enquiry into the characteristics of the educational environment ie the pedagogy and support structures and how they might synergistically contribute to students' success rather than focussing on the symptom (how to improve retention).

2.5 The probability of leaving a university before gaining a qualification is influenced significantly by a number of factors most notably:

- pre- university education
- personal attributes
- the degree subject
- characteristics of the department and the university (Smith and Naylor 2001).

2.6 Students who leave university without gaining a qualification can suffer from loss of confidence and experience a sense of failure. Universities also suffer when students do not complete a course of study and this suffering can take the form of financial withdrawal or perhaps more importantly, loss of the university's reputation.

2.7 Student voluntary withdrawal is for a variety of stated reasons including personal circumstances, dissatisfaction with their course or university and financial reasons. There appears to be rarely one single reason why a student may give up their course. Occasionally, one problem (eg marriage breakdown) may create a so-called 'domino effect' of financial, health and housing consequences which can adversely affect the student's whole equilibrium leading to inability to concentrate on study and eventually to withdrawal from a course (Heagney 2008).

2.8 Self reported reasons for leaving a course are myriad as Dr John Pugh MP, (Lib Dem Southport) revealed after reading the Comptroller and Auditor General's Report Staying the course: the retention of students on higher education courses. He noted that every conceivable reason known to man short of alien abduction had been given (House of Commons Committee of Public Accounts 2008).

2.9 The HE funding council considers that all universities should establish reasons for leaving and should have systems to identify and investigate particularly atypical trends in withdrawal and act on their analysis. In addition, universities should have information on what keeps students on courses as well as what causes them to leave. It would appear that universities who are improving retention

tend to collate and use management information on withdrawal rates.

3. Retention in NHS funded courses

3.1 In 2002, the Department of Health (DH) commissioned a joint review between the Higher Education and Health Sectors with terms of reference to 'consider and make recommendations on a single and consistent definition of attrition from NHS funded courses'. This resulted in a definition published in 2006 which applied to 'completed' cohorts i.e. the numbers who successfully complete their course of study (see Appendix 1). What this study did not do, however, was to distinguish between those who resign and those who are discontinued due to academic failure.

3.2 For nursing courses, Pryjmachuk and Richards (2008) have indicated that if students leave because of dissatisfaction with their educational experience then much can be done by nurse educators. In addition, a threat of financial penalty may well act as a springboard for innovation and development in curriculum design. If students leave due to inability, then nurse educators must distinguish between true inability and educational disadvantage.

3.3 There seems to be a dearth of information on why students leave courses and the research related to attrition is largely anecdotal, inconclusive or methodologically flawed. Exit interviews are usually voluntary and little more than anecdotal arising from those students who are generally upset, angry or disheartened.

3.4 It has been noted that nursing students have sometimes been unwilling to be overly critical of the course or department and therefore do not sometimes give the real reason(s) for leaving, In addition, some individuals may require references or wish to return to nursing in the future and hence are reluctant to be precise about the exact reason for leaving a course (McSherry and Marland 1999; Glossop 2001).

3.5 It has been documented that more than one in four student nurses leaves their courses before qualifying at a cost of almost £100 million a year to taxpayers. Figures disclosed under the Freedom of Information Act show that 6,603 of the 25,101 students due to finish degrees or diplomas in 2006 left early. This rate of attrition, 26.3 per cent, fell to 24.8 per cent on courses finishing in 2008. Nursing Standard magazine disclosed wide variation in the dropout rate of nurses between universities, from more than 50 per cent to less than six per cent (Nursing Standard 2008).

3.6 Attrition rates for the allied health professions vary across professions and HEIs with the national average attrition rates prior to 2000 for physiotherapy ranging from 6% to 10% and for occupational therapy from 7% to 12% (DH 2000a).

3.7 In the document Modernising Education, Training and Regulation, the DH (2000a) indicated that for the allied health professions, attrition rates should not exceed 10% in pre-registration training; that attrition rates for students from ethnic minority communities should be no higher than the programme average and when contracts are due for re-negotiation, contract triggers should be agreed (either monetary or efficiency related) that target attrition rates should not be exceeded and the quality of training not reduced (see Appendix 2 for research undertaken in relation to voluntary drop out from nursing courses).

4. Comparison with attrition rates for other HE students

4.1 Attrition rates for healthcare students are lower than those for HE students studying other subjects (DH 2006).

4.2 According to figures from academic year 2004-05, Medicine and Dentistry have the highest

continuation rates and combined subject degrees, Mathematical and Computer Sciences having the lowest rates among all undergraduates (NAO 2007).

5. Retention in Radiography Courses

5.1 The SCoR Approval and Accreditation Board Annual Report for academic year 2006- 2007 outputs showed student attrition rates for diagnostic students as 31.7% and for therapeutic students 48.7%.; for academic year 2007- 2008 outputs the attrition rates had increased by 4.9% to 36.6% for diagnostic students and a decrease of 6% to 42.7% for therapeutic radiographers. These figures demonstrate significantly high attrition rates and are above the levels suffered by other allied health professions and nursing.

5.2 Radiography programmes are often under considerable pressure from both the commissioning agency and from their own HE institution to reach target numbers of students. Within radiography programmes, anecdotal evidence points to retention problems with students accepted for the last few places on a course. Financial implications and other factors should not be the driving force for accepting students onto courses who have little or no realistic chance of succeeding (Yorke and Longden 2004).

6. Factors impacting on retention rates

There is considerable literature, mostly in the medical and nursing/midwifery press, related to the factors which are linked with, and are believed to affect, retention rates in health related courses. These are referenced within the background columns.

The SCoR group looking at attrition and retention have identified a number of risk factors which may contribute to attrition rates and these have been grouped together under the following headings:

- 1. Factors linked to effective marketing and recruitment
- 2. Factors linked to selection of appropriate candidates for the profession
- 3. Factors linked to student 1st year experience and course expectations
- 4. Factors linked to effective student support
- 5. Factors linked to clinical placement issues
- 6. Factors linked to relationships, organisational and course issues

For each factor, retention goals and guidelines are provided together with evidence from the literature and a number of radiographic and other case studies.

6.1 Factors linked to effective marketing and retention

1a. To get the right message about radiography across to potential applicants

1b. To target identified markets as sources of good quality potential applicants

Retention Goal	Guidelines	Background
1a. To get the right message about radiography across to potential applicants		Yorke and Longden (2004) have identified 4 broad reasons why students leave courses, flawed decision making in initial choice of course being one of these

	 Encourage clinical departments to use the annual World Radiography Day to present the profession to a wide range of potential applicants. Provide appropriate information and website and other resources for use by applicants and HEIs and make known to all what resources are available. Use Virtual Environments for Radiotherapy Training (VERT) to promote role of therapy radiography. Develop promotional DVDs (as have the London SHAs). Identify school clusters and target schools and run sessions for schools and for career advisors -ensuring they all know about radiography programmes and are aware of and understand the differences between diagnostic and therapy radiography. Provision of regular audits of University websites to ensure that accurate precourse materials and samples are updated regularly. This must ensure that they provide the 'real' picture of radiography including roles that students and practitioners undertake- this is in order to match the reality to possible student expectations. Expectations in terms of the commitment required from students should also be included and emphasised. 	(see section 2.3 for the other 3 reasons). Research related to radiography students has shown that those who have an unrealistic view of their future career are more likely to drop out of their course (Student Recruitment & Retention Guide South West London SHA 2006). Anecdotal evidence has indicated that there is lack of knowledge by recruited students not only about the profession as a whole but also about the differences between diagnostic and radiotherapy programmes. Information provided on university websites and in publicity material should be inclusive for all groups of students - mature students have indicated in the past that emphasis is often tailored towards young people at the expense of the mature (Yorke and Longden 2004).
Case Study: University of Salford Undertakes a series of recruitment events where potential students are made aware of the nature and requirements of the radiography profession and the programme including the predominant learning and teaching methodology of the course eg events include	Case Study: South West London NHS SHA The SHA has commissioned and produced a promotional DVD to give to potential students entitled 'Career in Radiography – looking into your future'. This provides much more detailed information about radiography than might be picked up from the NHS careers	Case Study: University of Manchester BSc (Hons) Geography This programme website provides information on entry requirements and the course and also provides students with answers to the questions 'What can this course offer me?' and 'Is this course right for me?' (Yorke and Longden 2004)

Retention Goal	Guidelines	Background
1b.To target identified markets as sources of good quality potential applicants	Identify potential, high flying students looking for a new career following job losses e.g. banking sector. This needs to be followed up with focussed, aggressive marketing techniques specifically designed to appeal to such potential applicants.	Traditionally, radiography students had been drawn from the school leaving sector. However, for under 21 year olds, entry onto diagnostic and radiotherapy programmes combined during the 2000s has been steady at about 48% except for a 'blip' in the 2005 intake when it was 30%.The
	Provide taster days for 14 year olds (year 9) for targeted schools when students are choosing their GCSE options.	average number of mature students over 25, for years 2003-2006, is 34% (CoR 2009).
	 Provide taster days for 16 year olds (year 11) when students are choosing their A level options Set up a local school liaison team drawn from the university and clinical department. 	It is likely that in times of financial crisis, many people risk losing jobs and may be looking for new career opportunities. Economists at the Centre for Economics and Business Research (CEBR) have predicted that virtually all aspects of the business sector
	Target the brightest pupils in the full range of all schools including state comprehensive, grammar and public schools.	will see sharp reductions in employment. It forecasts that 169,000 jobs will go in 2009, and a further 106,000 will be lost in 2010 as the recession bites (CEBR 2008).
	Stress requirements of a scientific background- and emphasise the reality of the role in the health service. School students need to be able to match expectations with the reality.	Targeting likely mature candidates who may already have had experience in the job market as well as school leavers should provide for a diverse student body.
	Make available school visits to clinical departments for career profile-raising (as early as feasible) possibility in year 9.	Comments such as 'not sufficiently academically challenging' and 'mundane' from students who have commenced a radiography
	Provide good, sound advice and information to prospective students during the recruitment process especially related to clinical practice and placements and particularly information	course and subsequently dropped out, need to be taken on board (SWLSHA 2006). There is a need for potential students to understand the

	about dispersed 'campus' arrangements. Mature students need to be aware of travel and time commitments as part of the course.	requirements of clinical practice and issues around being away from the home.
Case Study: A UK university Asks potential students to complete a self assessment questionnaire including 'tasks of a radiographer'- if that students scores poorly on the questionnaire, they are asked to find out more about radiography and its branches before committing themselves to applying for a course	Case study: University of Cumbria Faculty taster days/open days are arranged around a theme which has a variety of threads eg RTA victim with head injury. Threads are woven across the various departments in the Faculty so that this enables prospective students to gain an insight into and a measure of the activities involved in the different health professions. The facilities of each department are highlighted and students become involved in the day, not just as passive participants.	Case study: One English SHA funds a part-time recruitment co-ordinator post which is filled by a part time radiographer who organises recruitment fairs, liaises with the universities, places adverts in the local newspapers and takes telephone enquiries (SW London SHA 2006).

6.2 Factors linked to selection

2a. To ensure student have the right qualities and a commitment to radiography

- 2b. To select the most appropriate candidates for the profession
- 2c. To ensure sensitive approaches to cultural and ethnic issues with regard to applicants
- 2d. To consider the requirements of mature students, minority students and part time students
- 2e. To consider the requirements of students recruited via widening access

Retention Goal	Guidelines	Background
2a. To ensure students have the right qualities and a commitment to radiography	Require applicants to attend clinical visits (lasting 1-2 days minimum) which will provide a closer match between student and clinicians expectations and reality. It is probably better not to rely on the shadowing of staff in a range of different modalities as this may present potential students with an impression that they will be rotated into these areas from the start of their course. Time spent with clinical tutors in general areas might provide a more realistic impression. It will also provide clinical	The aim of HEIs delivering radiography programmes is to educate people for a profession in which personality and professional conduct play a central role. For this reason, it might be considered that stringent admission criteria are necessary. The UK government is committed to increasing HE student numbers and to widening participation in HE. Professions are also committed to providing effective, professionally sighted and competent practitioners to make up the profession and need to be looking to select the

	radiographers with the opportunity to assess the commitment of potential students. Consider involving current students in assessing applicants (potential or actual) for the extent of their interest in radiography and whether they possess the desired qualities.	correct candidates who will be able to uphold professional standards and raise the status of the profession in the eyes of the general public. Drop out rates by students in UK medical schools indicated that unobserved personal attributes such as commitment, resilience and motivation to study medicine are likely to be discernible in structured interviews and attitude tests (Arulampalam et al 2007).
Case study University of Ams Introduced a system in 2000 to s school from applicants meeting of based on a 3 part procedure whic comprehension, social and ethica and communication and interper	elect 10% of its quota to medical certain pre university criteria ch focused on medical al understanding of healthcare	Case Study: A number of UK universities Clinical staff are asked to provide a written report on potential students following a period of time spent in a clinical environment. The report
 The procedure required applicants to: 1. Write an essay on a proposition related to healthcare (essays judged on writing style and analytical thinking) Two months later following a day of medical education:- 2. Sit an exam on a topic delivered in the 1 day programme 3. Undertake an Objective Structured Video Examination (OSVE) on social skills 		advises the university admissions tutor on the suitability of the student in terms of qualities and apparent commitment to radiography. In addition, some universities require the visiting student to write a reflective report and present this at the interview -however this is not always
A study undertaken 2 years later suggested that selected students were more committed to healthcare than students who were either direct access students or students who were selected randomly. (Hulsman et al 2007)		possible if the student is recruited via clearing

2b.To select the most appropriate candidates for the profession Consider selection process to include an assessment of personality characteristics suitable for chosen career path of either diagnostic imaging or radiotherapy.The reliability of the per interview for admission universities is controver Research into nursing admissions found that personal interview lack objectivity and was a p predictor of those stud might drop out. The res also concluded that hig attrition rates are not p by interviews (Ehrenfel Tabak 2000). Develop a strategy for students with identified weaknesses.Other research in nursi	is to irsial. the s oor ents who search jh orevented d and

	Consider selection process to include a clinical aptitude test. Assess commitment of student to the profession- this might be undertaken during the interview process. Consider the involvement of current students on interview panels either as observers or full panel members. The interviewees may appreciate the presence of current students at the interview.	suggests that structured interviews emphasising professional aspects are preferable to non structured interviews or none at all and should include some personality testing (Bowles 1995). This is supported by a suggestion that psychological profiling may have a place in predicting those most likely to succeed and remain in nursing (McLaughlin et al 2008). Medical school admissions in Europe, Australia and the USA variously refer to the importance of non-cognitive qualities and personal attributes of candidates as deciding factors in selection and also in subsequent retention (Edwards et al 1990). The involvement of current students in the interview process has shown that this enables them to reflect on the qualities of the interviewees. The process may also serve as a reminder to students to develop attributes and skills other than academic performance (Koc et al 2008).
Case Study: Several universities offering dental and medicine places in the UK require students to undertake a clinical aptitude test (see link below). http://www.ukcat.ac.uk/	Case Study: King's College School of Medicine Involve a year 3/4 student (5 year programme) to be one of three interviewers in the selection of students. Main advantage seen by students included their ability to assess communication skills and the suitability of candidates for team work. They found they were able to identify those who were academically able but whom they judged unsuitable due to poor motivation, attitude or communication skills (Koc et al 2008).	Case Study: Karolinska Institute, Stockholm SE The admission policy for dental students has three strands which are (a) students must meet general and specific academic requirements; (b) prospective students are invited to write three assignments (i. self description ii. personal motivation iii. an essay) and (c) applicants writing 'satisfactory' assignments are then called for interview (Roding and Nordenram 2005).

Retention Goal	Guidelines	Background
		The pattern of participation of black and minority ethnic

ethnic issues with regard to applicants	 minorities should be carried out sensitively to ensure that they are aware of the types of situations they may face in their clinical roles. Support mechanisms should be in place for students who may experience racial abuse from patients. Ensure cultural awareness is well developed in admission tutors. Interviewers and others may, in some cases, benefit from equal opportunities training in admissions to at least alert them to some of the biases and pitfalls. Examine or re-examine the curriculum to ensure that it avoids being either Anglo or European-centric and addresses issues relevant to a range of cultural groups and promotes the value of diversity (Stapleford and Todd 1998). Alert applicants of dress code requirements in relation to infection control matters. Provide flexible study routes which may attract mature ethnic minority students who need to support themselves and those (e.g. Asian women) who often have demanding domestic arrangements (Stapleford and Todd 1998). 	 people in higher education appears to be different from white students. Differences are seen in choices of subject and programmes of study, entry qualifications, the routes taken into HE, means of financial support while studying, attainment levels and employment outcomes on graduation. Recruiting black and minority ethnic students may require a particular focused approach and should reflect the ethnic mix in the population. (2002/03 National Statistics website www.statistics.gov.uk) The ethnic diversity of radiography students should closely match the ethnic diversity of the working population (CoR 2009). Often white professionals from the majority population are unlikely to have a real understanding of the social customs and religious practices and culturally different beliefs about health and illness (Stapleford and Todd 1998).
Case study: University of Cun The university covers a wide area Cumbria which has a very low bla population. In particular, male As issue of lack of community and re region as being a large drawback university. Potential students are Northern cities and conurbations infrastructure is present.	a of north Lancashire and ack and ethnic minority ian students have found the eligious infrastructure in the c in accepting offers from the e drawn to the much larger	Case study: Anecdotal incident in a UK university A male Asian radiotherapy student found himself in a situation where he was faced during his first clinical placement with assisting in the undertaking of a breast procedure on an unclothed female. He had not been advised in advance that procedures of such a nature and similar would be required to be undertaken. He left the course the same day.

Retention Goal	Guidelines	Background
2d. To consider the requirements of mature students, minority students and part-time students	 Ensure the information about the course is welcoming to the wide range of potential applicants. Seek to be unbiased in relation to age, gender, disability and sexual orientation of students. Explore what support is available for students who are part-time and not often on campus. Ensure mature students are supported in relation to confidence building in the academic environment especially in relation to learning and teaching strategies which may have changed dramatically from when they were at school 	Mature students are not a homogeneous group and ought not to be treated as such. However, positive factors associated with mature students are that they tend to have a more adult relationship with university lecturers and have strong family support. Negative factors include pressures from commuting, financial difficulties and various family responsibilities (Sparkes and Mason 2002). Mature students do have a tendency to be highly motivated and to be more confident within the clinical environment although the student label and the expectations of the student role in the clinical environment may create issues for clinicians and mature students alike. Lack of confidence is an issue for mature students alike. Lack of confidence is an issue for mature students who, returning to study after a long period, have insufficient knowledge of the HE system and how learning and teaching has changed (Heagney 2008). The College of Radiographers Approval and Accreditation annual report 2007-2008 shows that the profession is still significantly dominated by females. It would seem therefore, that a potential growth area for HEIs is to promote radiography educational programmes to the male population (CoR 2009). Social factors dominate women's decisions to quit whilst academic considerations are at the forefront in the case of men (Tinto 1993). Research also tends to agree that part-time students are

		more likely to drop out than full time students (Windham 1994; Moore 1995; Montmarquette et al 2001), and being female increases the chances of persisting (Montmarquette et al 2001; Arulampalam et al 2007).
Case study: University Colleg The university has for several ye in-service pre-registration course support staff already working in a professionally qualified. Because adopted the same model for phy It requires full consent and suppor managers. Each student remain care and is released to attend Ur follow academic modules and ful practice placements.	ars run a successful part-time, e in occupational therapy for the service who wish to become of its success, the College has siotherapy education. ort of the respective employing s employed in health and social niversity two days per week to	Case study: University of Kent The VALUE (value added learning in university education) programme is for Stage I students who want to make the best of their time at University and who - for whatever reason - are concerned that they are not fulfilling their academic potential. Reasons for this might include anxiety about exams; study skills problems; academic difficulties or other issues. It consists of a 3 part 6 week programme delivered at the end of the 1st year and in preparation for the 2nd year- the purpose being to build confidence, foster motivation and promote deeper approaches to learning. The programme aims to develop participants' academic knowledge and understanding, key skills and learning strategies, through a number of different activities. The programme is suitable for students of all ages, backgrounds and academic disciplines. (see also Sellers and van der Velden 2003)

Retention Goal	Guidelines	Background
2e. To consider the requirements of students recruited via widening access	Ensure that the induction programme focuses on the needs and concerns of students rather than on the course alone Provide opportunities for a number of formative assessments particularly in the first year of the course	In 2000, the then Secretary of State for Education and Employment indicated to the Chair of HEFCE that institutions should focus on retaining students particularly those from disadvantaged backgrounds and widening access to HE must not lead to an increase in the number of people who fail

	 Strengthen the personal tutor system to provide a stable point of contact between the student and the university Recruit students who have a realistic chance of succeeding Consider the development of a peer mentorship scheme with peers from same year or years above providing emotional, social and academic support 	to complete their courses (Blunkett 2000). Considerable pressure is on universities to meet targets and thus the temptation is to open the doors to a wider range of people than might have been the case in the past. Poor retention may arise if the implications of widening access are not aligned with the potential for student success (Yorke and Longden 2004). Students with high A-Level grades are much less likely to drop out than those with low entry scores (HEFCE 2001; Arulampalam et al 2007; Montmarquette et al 2001).
Case study: Manchester Metry Developed a 'support for learning a 'deficit model' through the devel learning' unit that is delivered the students are introduced to reflect emphasis on critical and analytica evidence and sources. The delive synchronised with the tutorial sys portfolio of learning and the week group (Kirk 2008).	g' strategy based on rejection of elopment of an 'approaches to roughout the first term. The tive learning theories with an al approaches to the use of ery of the sessions are stem, the construction of a	Case study: Birmingham City University (Technology Innovation Centre) Students on the BSc Foundation programme were, during the first week of their course, asked to complete a Student Expectations 1. Questionnaire and then during week 6 of the course a Student Expectations 2. Questionnaire. The areas under investigation included:
		 expected time spent attending lectures/tutorials/self directed study what students expect to happen in tutorials how many assignments in the first year contact time with course leader major worries about university what students are looking forward to most about university The induction programme was then able to address these issues and put any concerns in context.

6.3 Factors linked to 1st year experience and expectations

3a. To prepare students for transition to academic life

3b. To integrate students socially and academically and to provide meaningful and appropriate induction

3c. To support and enhance academic and personal development

Retention Goal	Guidelines	Background
3a. To prepare students for transition to academic life	 Provide a transitional period between acceptance and commencement for students by using for example the University Virtual Learning Environment (VLE) such as Blackboard. Provide activities for students to undertake prior to first week in the university- students given 1-2 months to complete the task prior to arrival at the university. Such an approach can encourage both social and academic integration at a very early stage in the course. Engage with students prior to their arrival at the university through the provision of 'user friendly' information about the department, current students and the staff eg via a newsletter Engage students recruited via widening access in specially prepared transitional short summer schools, to include parents and guardians to show how they can assist in supporting students in the transitional period and also continuation in HE. Encourage students to engage with each other prior to attending the university by providing space on the VLE or setting up a social networking site for all to access 	The first year may be crucial for retention of radiography students especially if the admissions process is not stringent enough and has not assessed the student commitment to the course and to the profession. Although the first year is important in relationship to retention, the years leading up to graduation may be equally important. This section refers to those particular factors involved in the transition from school, home or previous careers which will have a bearing on universities enabling students to be able to create for themselves a satisfying academic and social environment in which they can develop. New students often do not settle in socially or academically as quickly as expected, this may be partially addressed by requiring students to undertake some activities prior to arrival at the University- see case study (Keenan 2008)

Case Study: University of Salford Use BlackBoard VLE in transitional period (between acceptance onto the programme and 1st day of attendance) to provide students with information and pre-course reading plus discussion board space which enables some social (virtual) interaction.	Case study: Bournemouth University Stepping Stones to HE New first year students receive a link to the on-line Stepping Stones 2HE resource once they receive confirmation of their place at the University. The resource provides information for students about university life, study skills and news about the broader university. It allows students to provide the course team with their reflections on their previous learning experiences and to think about their expectations of coming to university and of the institution.	Case Study: University of Central Lancashire Flying start bridging project, initially for students recruited via 'clearance' but now offered to all students, consists of a four day summer school which aims to ease the transition between different learning environments; ensure students know what is expected of them at HE and introduces them to academic conventions and key independent learning skills as well as providing a social programme. Paid student mentors who have experienced the same summer school act as mentors. Parents and guardians are invited to attend.

Retention Goal	Guidelines	Background
3b. To integrate students socially and academically and to provide meaningful and appropriate induction	 Provide an appropriate induction programme which includes elements to ensure early emotional and social integration of the cohort. Induction programme should include academic aspects and also professional factors in relation to professional behaviour etc. Provide screening and formative assessment for special requirements to include: Dyslexia, Study skills, Maths and English. Mature students who have been out of education for some time may find Information and Communication Technology (ICT) skills need developing. Some of these assessments may be carried out on line and are easy to administer Carry out early formative assignments (in both the academic and clinical environment) with provision of speedy feedback. 	Research suggests that making and maintaining social support with peers and staff is central to a student's sense of belonging (Wilcox et al 2005). The induction period can sometimes be seen by students as being overwhelming and may lead to 'information overload'. Students are keen to get on with their studies so it is important that this period should be contextualised and as far as possible personalised (Keenan 2008). Student dropout in the first year has been linked by a number of researchers to lack of clarity of expectations and low levels of tutor feedback. It has also been established that non integration either socially or academically into the university can lead to poor motivation and lack of self confidence (Tinto 1999, 2005: Yorke 1999, 2003; Yorke and Longden 2004). The social dimension should be

	 Provide personalised feedback Provide early opportunities for students to understand the personal responsibilities for their learning and to engage in new ways of learning eg Problem Based Learning (PBL) and other student-centred pedagogies. Build clinical placements into the course at the very earliest stage to ensure students have the opportunity to understand the requirements expected of them. This will be not just in terms of clinical activities, but also to ensure that they become familiar with accommodation away from the university base, the potential financial implications and the travel time taken. Factors surrounding social interactions with other students and the ability or otherwise to form social relationships if attending separate clinical placements for lengthy periods of time can also then become familiar to them. Provide a welcoming ambience which encourages students to feel that they belong, creating a community spirit. 	recognised in the provision of learning activities to assist in integration. Saucier (1994) cited by Glossop (2001) described various intervention strategies which improved academic success and student retention. In these regards, study skills development and stress management training were demonstrated to be successful. Study skills workshops which concentrate on individual reflection are seen to be more effective at improving learning than the provision of tips and hints on how to study (Sellars and van der Velden 2003) Yorke (1999) showed that the number of opportunities available for formative feedback is an important variant in non-completion by students in the early years of study.
Case Study: UK university Requires the completion of 2 x 500 word assignments at end of semester 1. This is designed to assess skills such as database research, referencing, literature searches and literacy skills	Case Study: University College, Suffolk, Ipswich Use the so-called spiral induction which starts small and works up. The first exposure the students have is a welcome by their personal tutor in a small group or as a whole cohort at maximum numbers (18 for Oncology at UCS). The idea is that they then identify with a patriarchal / matriarchal type figure on a more personal level. As the induction week unfolds they work in other small groups and then both programmes get together. Along with team building events, they then identify with the whole. The week culminates with a	Case Study: Bournemouth University Before arrival, students are asked to work on discipline based activities which are linked, on arrival, with group work during induction week. Students are given time, resources and rooms to come together, share the knowledge and information and develop some output e.g. poster, presentation. For instance: Operating Department nursing students investigated medical advancements throughout the ages and taught each other what they had learned.

academic environment.

Retention Goal	Guidelines	Background
3c. To support and enhance academic and personal development (See also 4b.)	 Provide early and appropriate formative assessment and ensure good rapid feedback. Provide structured opportunities for students to carry out self assessment of their work eg identify and provide a rationale for the best features of the submitted work and for a mark they think would be fair. Engage students with your VLE from the start to ensure students log into it as a daily routine. Use methods for contacting students eg using student mobiles for Short Message Services (SMS) via a bulk and individual texting service. Develop and implement a method to detect underachievement through the use of early recognition indicators such as absence patterns, late submission/non submission of work, multiple requests for extensions, high demands on learner support etc. Seek to improve or maintain student motivation as this can lead to better retention and achievement (Martinez 1997; 2000) 	Because the first year is crucial for retention, commentators indicate that there is logic in disproportionate resource allocation (staff time and materials) in favour of the first year experience (Yorke and Longden 2004). As most, if not all HE students have mobile phones, several authors have investigated the use of mobile phone text messaging (SMS) by university staff and its potential to enhance the support provided to students during the transition to university. The mobile phone text messaging service enables staff to send text messages from their computers to the mobile phones of groups of students. Results reveal that text messaging is the dominant mode of electronic communication amongst students and plays a central role in maintaining their social networks. The text message dialogue amongst students provides emotional and social peer support and facilitates an informal system of interdependent learning in relation to navigating unfamiliar academic and administrative systems. Text messages from university staff, inserted into this dialogue, can enhance the existing peer support and aid students' social integration into

	Encourage students to feel that they belong in the institution (Yorke and Longden 2004) and that they feel that they are on the right programme.	university life. (Harley et al 2007; Stone 2004)
Case study: Bournemouth University The Stepping Stones to Higher Education (SS2HE) programme has been running successfully for 5 years as a focus for developing a fully integrated approach to the first year experience at university. It provides (amongst other things) information to students and discipline based activities to undertake before they join. It also encourages students to complete and return an on-line profiling questionnaire and enables staff to make contact with students prior to their attendance to provide early stage transitional support	Case study: Wolverhampton University The MELaS (Mobiles Enhancing Learning and Support) project concluded that universities and their students will benefit from institutional wide use of communication via SMS and that the use of SMS for specifically learning and teaching activity shows great promise but needs further use and investigation Final report (July 2008) can be located on the following website: www.wlv.ac.uk/celt/melas Case study: Universities across the UK Many universities have either implemented or are testing an SMS texting service to alert students to short notice changes in their timetables such as cancellation of lectures. Other universities use the SMS system for a variety of other ways of keeping in touch while students are on clinical placement and providing feedback on assignments.	Case study: University College Suffolk Operate a P4 system via the student's personal tutor. P4 stands for Personal and Professional Progress Planning. This covers General Key Skills, SWOT analysis and action planning. They also run a level 3 module called preparation for practice which enables students to produce a portfolio enhancing their appeal to future employers.

6.4 Factors linked to effective student support

4a. To support students emotionally and socially4b. To ensure effective support of students academically across all undergraduate years

Retention Goal	Guidelines	Background
4a. To support students emotionally and socially	Identify and deal with complaints to ensure their early resolution. The common root causes of complaint arise from disappointment, lack of transparency, sense of	Students need to know and be reassured that they will be supported by university and clinical staff. All university radiography departments provide personal individual



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Case Study University of Exeter Students meet with their personal tutor once a fortnight, during the academic terms for group tutorials. They operate an open door policy. The staff -student ratio for tutorial groups is not usually greater than 1 to 8. The tutorial programme is designed to provide students with information about how to access the varying support mechanisms, but also focuses on study skills in the early part of Stage 1. Reports from the Disability Resource centre pertaining to individual student action plans are circulated to the appropriate teaching staff in order to ensure that students are able to engage with the learning material provided		Case Study: Bangor University Peer guides - student volunteers in all schools who help new students settle into university life. Help with induction and social events and make themselves available for general support and advice as long as new students need it. Survey of scheme across the University found that 14% of peer guides supported students with serious welfare issues and 16% supported students thinking of withdrawal (all of whom eventually remained).
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Retention Goal	Guidelines	Background
4b. To ensure effective support of students academically across all u/g years (cross reference 3c.)	 Ensure learning and teaching approaches are conducive to student success Create the opportunities for students to take early responsibility for own learning at the beginning of the programme in a supported environment through personal development planning and the use of eg learning logs Acknowledge the different learning styles of students whilst at the same time also seeking ways to widen students' learning preferences and repertoires 	Unsurprisingly, research evidence points to the conclusion that learning and teaching environments are highly influential on students' success and that issues relating to pedagogy, practical organisation and student support have the most pronounced impact on retention rates (Davies 1999; Quinn et al 2005; Yorke 1999). Gibbs (2000) indicates that effective learners show flexibility in using a range of learning approaches and styles despite perceived discipline conventions in pedagogic approaches.

	 Ensure good feedback practice to enable students to engage in self- assessment to improve their academic performance. Provide different forms of feedback eg aural rather than visual using the technology that students use. Examine current assessment practices in relation to the self-regulation model and to the seven principles of good feedback practice (see case study). Create an environment in which students feel able to admit or disclose educational needs (Sellers and van der Velden 2003). Ensure students who may struggle with the physics element of the course are provided with intensive remedial support (National Radiotherapy Advisory Group 2006). 	There is considerable evidence that formative assessment has an impact on learning quality and that the number of opportunities available for formative feedback is an important variable in non completion in a student's early years (Yorke 1999). One aspect related to student support is the so-called 'academic culture shock' experienced by new students as identified by Quinn et al (2005). Key factors here are possible large class sizes, large staff-student ratios, more freedom/less structure than school resulting in a feeling of loss of control. Students must be able to perceive themselves as to be agents of their own learning (Nicol 2006).
Case Study The use of staged assessments (such as in-class tests) throughout the academic year provides both staff and students early feedback on performance and is an indicator of progress, thereby providing an opportunity for appropriate measures (such as study skills) to be utilised.	standards) 2. facilitates the developme reflection 3. delivers high quality infor learning 4. encourages teacher/peer 5. encourages positive moti 6. provides opportunities to and desired performance	mented would contribute to the by in learning. Good feedback: erformance is (goals, criteria, nt of self assessment and mation to students about their dialogue around learning vational beliefs and self esteem close the gap between current

6.5 Factors linked to clinical placement issues

5a. To prepare students well for a positive clinical experience

5b. To ease students into clinical placements and address their concerns 5c. To provide effective support

Retention Goal	Guidelines	Background
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Retention Goal 5a. To prepare students well for a positive clinical experience	Guidelines Preparation for clinical placement should be carried out away from the clinical environment in the first place and address several key elements such as staff expectations; professional behaviour and attitude; student duties and role within the department; information on departmental facilities, location and hours of work. Develop students' practical skills in a practice setting (real or virtual) prior to them coming into contact with patients in the clinical placement environment eg Virtual Environment in RadioTherapy (VERT); use of mannequins. Early clinical placement (of 2 or 3 weeks) possibly in the first semester may enable students to become familiar with the clinical environment and for them to develop relationships with patients, clinical and support staff. It will allow students to gain a more focussed view as to whether they have chosen the right course and the right profession. Ensure some element of student choice of placement site. There should, however, be some degree of flexibility for moving between sites or to change sites to allow for situations where students might be experiencing difficulties in settling into a particular placement for a variety of	Background The DH (2000) have identified that skills laboratories and other approaches to simulated 'learning through practice' are becoming more commonplace and should be encouraged. Clinical placements are an integral part of the academic professional and practical skills development of the student. In addition to skills and expertise, professional values will be developed and will be dependent to a large measure on clinicians acting as positive role models. Participation in patient examination and care activities enables the student to integrate the cognitive, affective and psychomotor domains of radiography and to become a critical analyst (Spouse 1998). All clinical departments accepting students from the universities have dedicated clinical tutors (or similarly named individuals) who structure the clinical learning programme, manage the clinical support; thus providing an effective, supportive learning environment. In addition, clinical radiographers act as mentors [or supervisors] to guide students through the intricacies and complexities of the many radiographic/radiotherapeutic tasks.
	reasons. Inform students that they may	Clinical tutors provide a strong link between the education and
	not get their first choice of clinical placement(s) but make it clear that their specific needs	clinical placement providers thus facilitating a seamless transition between the
	will be taken into consideration	academic and the clinical block

	when allocating sites. Inform students of impact of being away from university base for lengthy periods.	for the student. In the main, support for students in the clinical environment is also provided by regular visits from link lecturers [or similarly named university staff] to maintain the link between the education and placement provider. However, a certain amount of staff negativity in the NHS (particularly surrounding Agenda for Change) together with negative publicity in the press may affect students' perceptions of radiography as a career or potentials for a career path in healthcare (AAB 2008).
Case study: University of Cumbria Preparation for clinical placement is carried out in class and supported by guidance documentation. It covers areas related to what to expect, the expectations of the clinical staff, professional and ethical issues, communication and how to deal with issues. It uses role play techniques to assist students in the anticipation of situations they may encounter whilst in the hospital environment eg patient with signs of ?intoxication; bullying by staff or other students; unwashed, unhygienic patients.	Case study: The College of Radiographers has adopted the definition of Practice Educator from Making Practiced-Based Learning Work, which states: The term 'Practice Educator' is used to describe the identified practitioner in the practice placement who facilitates student learning face to face on a daily basis and generally has responsibility for the formative and/or summative assessment. Throughout the literature, this role is described by a number of terms, including work-based supervisor, mentor, preceptor, practice learning facilitator, clinical tutor and trainer.	 Case study: McAllister & McKinnon (2008) suggest that health students should be engaged within university learning contexts in 1. identity building: exploring such questions as 'What do I believe in? Who am I with this new professional identity?' 2. coping, capacity and strengths development: exploring such questions as 'What will I encounter for which I need to be prepared? How can I develop critical/creative thinking and a sense of humour to help me to cope?' 3. learning leadership for change: exploring such questions as 'What can I do to show others how to act with engagement, respect and partnership?'

Retention Goal	Guidelines	Background

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5b. To ease students into clinical placements and address their concerns	 Suitable accommodation in terms of costs, access to clinical sites and provision of social spaces to ensure mutual support should be provided for students. Travel and other expenses associated with clinical placements must be reimbursed promptly. The risk of pushing students to into any financial hardship must be recognised. Ensure students understand the expectations with regards to managing academic and clinical workload and their attendance patterns. Organise assessments so that there will be no hand in dates for academic pieces of work during the placement periods to enable concentration solely on clinical aspects. Require systematic, regular feedback from students as to their perceptions of the quality of the placement. Develop a follow up action process to be implemented if the feedback indicates any issue that needs addressing. Consider ways in which students can be integrated into the clinical environment and meet with the staff in formal and informal situations. Provide appropriate communication channels for students to keep in touch with the university and staff during clinical placement periods Instigate flexible 'workday' and holiday policies bearing in mind the differing needs of students who may have family 	Difficulty in retaining students may be caused by a number of factors. One may be attributed to poor experiences in the clinical placement and a failure to cope with the demands of both the academic requirements and the clinical aspects of the course. Clinical staff need to be aware of the expectations of the course and of the students. The DH (2006) report on managing attrition rates for student nurses and midwives stresses the importance of considering the quality of the clinical placement per se and the perception of quality by the student, with the latter aspect having a strong bearing on a student's decision to remain on a course. The importance of social integration in addition to academic integration serves to strengthen a student's commitment to their educational goals and to the university (Tinto 1975). Students must be integrated both academically and socially into the two environments to ensure their continued success and confidence.
Case study: Social Induction in Clinical Placement	mind the differing needs of students who may have family responsibilities or religious practice requirements Case Study: University of Salford	Case study: University of Derby

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Student induction to the clinical environment in one hospital in the UK has students, three days prior to their clinical placement commencement, attending for a one day acclimatisation; this is to enable them to meet as many staff members as possible. Social integration between the student peer group and clinicians is facilitated through the organising of a social event out of the hospital environment and through a lunch time activity.	Third year student mentors are each assigned 3 or 4 new first year students mentees. The 3rd year student mentors take a lead role in inducting the first years into placement, introducing them to the staff, showing them where the social spaces are, helping them with PDP documentation and being an approachable and friendly source of support and guidance	35 first year radiography students have been issued with i-pods for use whilst they are on clinical placement. The i-pods have downloaded onto them the radiographic technique DVD produced by staff at the University. This includes video footage and graphic animations with commentary on plain film radiographic techniques. Students can use the information as an 'aide memoire' and have easy access at times and locations suited to individual usage.
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Retention Goal	Guidelines	Background
5c. To provide effective support (see also 6b.)	Clarify the level of support that can be expected by students from clinical tutor, clinical mentors, link tutors and the university	'Supervising students is a key part of every professional practitioner's role – ensuring that the next generation of professionals is competent to practice.
	Develop a supportive learning environment: remote access, internet resources and peer support	This role needs to be better recognised through more systematic organisational, staffing and management practices, and Government
	Provide on-going continuous professional training and education of clinical mentors including how to give effective feedback to students	expects all NHS organisations to put measures in place to ensure supervisors are supported' (DH 2000).
	Encourage staff to work towards accredited practice educator status	A supportive clinical environment will provide the means to develop a competent practitioner through learning and teaching, by narrowing the
	Develop the confidence of mentors so that they are able to provide appropriate feedback to academic colleagues and can	apparent theory-practice hiatus and developing skills and attitudes.
	advise on the progression or otherwise of students at the correct time, not wait until the end of the course.	The importance of clinical education has been highlighted by the DH in 2 separate documents (DH 2001a; 2001b).
	Review on an annual basis the nature and role of the clinical support models in operation and look at the evidence from other health professions in this respect	A report from the nursing profession has identified that a clinical department could be 'erratic and energetic with unforeseeable changes, lacking in reliability and identical experiences' (Lambert and

		Glacken 2005). These findings highlight the problems for clinical tutors, mentors or practice facilitators in organizing a similar learning experience for all students; a factor which may impinge students' perceptions of fairness and equality.
Case study: Sheffield Hallam The role of the Professional Dever radiotherapy was introduced in 2 university but primarily based in supernumerary staff. Prior to this lecturers acted as link tutors to of day a week in the clinical depart (Doughty and Hodgson 2009) of found that the PDFs' played a wid assessment and assessor/mento academic support of students wh studies are planned for the future context of link tutor roles. See also Radiation Therapy Educ Australia (Chapman and Oultran	lopment Facilitator (PDF) in 002. PDFs are employed by the the clinical department as date, full time university linical departments spending 1 ment. Recent evaluation this new clinical support model de role in the input into student ring training and also in the illst on placement. Further e to evaluate the PDF role in the ators (RTE) in New South Wales,	Case study: College of Radiographer's Practice Educators The purpose of the Practice Educator Accreditation Scheme is to consolidate good practice and harmonise varying methods for accrediting Practice Educators in the clinical imaging and oncology workforce in the UK. The CoR is currently working jointly with the Chartered Society of Physiotherapy and the College of Occupational Therapists in developing a single, joint scheme to replace the three separate schemes. There now stands 11 accredited practice educator programmes (AAB 2008).

6. 6. Factors linked to relationships, organisational and course issues

6a. To maximise quality factors in relation to organisational and course issues

6b. To deal effectively with ethical issues arising in academic and clinical situations

6c. To ensure effective course management issues

6d. To ensure smooth career change and transfers to other HE courses so that students are not lost to the healthcare professions

6e. To provide excellent interorganisational working relationships

Retention Goal	Guidelines	Background
6a. To maximise quality factors in relation to organisational and course issues	Maintain a system of regular feedback from students regarding clinical and academic aspects to include their assessment of synergy between the environments. Facilitate student	Students must be provided with the ability to be engaged in the quality process of their courses. In addition, the Quality Assurance Agency (QAA) requires the student voice to be heard.

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	representation from across the year groups on a number of different panels, committees etc. selected via peer group nomination. Encourage students to be representatives on external committees such as student representation of the SCoR. Encourage students via a student forum. Encourage student via a student forum. Encourage student membership and attendance at annual student conferences through awareness raising activities undertaken by the SCoR at the HEIs. Provide good internal practices to deal with complaints as they arise and ensure early resolution.	Student feedback and support mechanisms should enable any potential problems to be recognised and addressed at the earliest stage before the student has potentially reached the threshold to withdraw from the course. Feedback must be viewed as the opportunity to create innovative approaches to possible difficulties.
Case study: University of Portsmouth The centre for radiography education at the university has consistently low attrition rates on its pre registration radiography course as a result of adopting a consistent approach to student support including that fact that students are able to feedback and influence the course through a series of formal and informal mechanisms (DH 2000a).		Case study: SoR Student Working Party SoR has a working party made up of SoR reps, an academic, a representative from the publishing company, the UK Council student rep and reps from each of the regions. They meet for a full day, three times a year to discuss student issues and to take things forward. During 2008, work on the Student of the Year award, which took place at the House of Commons; the student e-zine 'StudentTalk' and all issues related to the student experience took place.

Retention Goal	Guidelines	Background
6b. To deal effectively with ethical issues arising in academic and clinical situations	Make clear to students their rights with regard to bullying and harassment. Students should be able to report instances without fear of reprisal. A school/departmental policy will reflect the issues.	Physical bullying is rarely reported but the clinical situation may provide opportunities for a wide range of aggressive or intimidating behaviour. Quinn (2005) notes that perceptions of the behaviour by the victim, not the

	 Employ assertiveness training for students to enable them to deal with and withstand the stress of any potential/actual victimisation by staff or other students. HEIs to develop links with radiology business managers to develop a policy on how bullying and harassment of students in the clinical environment might be tackled. Provide clinical staff training to address any potential ethical issues that may arise in the clinical environment. Ensure all clinical placement staff recognise that students are supernumerary. Provide ethical education and training for students prior to attending clinical placements. Ensure sensitive approaches to students' particular cultural or religious requirements eg fasting; friday prayer requirements 	intention of the perpetrator, determines whether bullying has occurred. In which case there must be a negative effect on the victim, who may feel upset, threatened, humiliated or have their self confidence undermined leading to stress. The BMA in relation to doctors in the workplace, note that bullying can be subtle and devious. However, they also stress the importance of distinguishing between bullying behaviour which is destructive and effective supervision which is supportive and developmental. Ogden et al (2005) noted the educational and personal impacts that bullying and harassment can have on medical students. Personal and psychological effects include depression, stress and low self esteem. Educational effects include poor learning environment, lack of confidence, insecurity in skills, lack of initiative and negative attitudes. towards the speciality.
Case study: The Royal College of Nursing have produced a guide for nursing students which answers the questions such as 'Recognising the problem: are you experiencing bullying or harassment?'; 'What should I do if I'm being bullied or harassed?' and provides a few pointers as options for action. It also stresses the importance for educators and practice placement providers to take such matters seriously. The guide points to a link between bullying and harassment and the deleterious effect it can have on a student's psychological and physical health. It also stresses a direct link to poor academic attainment, high attrition rates from nursing and to a culture of dissatisfaction in the workplace. RCN Dealing with bullying and harassment: a guide for nursing students 2002 RCN:London		Case study The University of Salford has developed a series of road shows to take out to their clinical placements. Their aim is to raise awareness of the changing profile of radiography students in the light of Widening Participation and the advantages and challenges this can bring to a clinical department. This also provides the opportunity to develop stronger relationships between staff supporting students in the academic and placement settings.

Retention Goal	Guidelines	Background
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6d. To ensure smooth career change and transfers to other HE courses so that students are not lost to the healthcare professions.	 Provision of realistic advice at recruitment fairs etc. Strengthen selection processes to ensure a realistic view of the profession (reference sections 1 and 2 of this document). Provide flexible pathways enabling easy access and 	The National Audit Office (2001) found that healthcare students taking up employment or other career choices amounted to 8.6% of the overall attrition rate with transfers to other HE programmes accounting for 9.1% of the overall attrition rate.
	return onto step on- step off programmes eg for students who become pregnant and wish to continue in the long run. Strengthen year tutor support to develop skills for 'interrupters' and to ease their way back as positive minded returnees. Provide realistic careers advice	local initiatives. Rather it should aim to support the work of local organisations in delivering the maximum number of qualified people from courses. A number of steps have been taken at national level to minimise attrition. For example: new models of nurse and Allied Health Professional education provide students with flexible pathways through the
	for those students who leave half way through the programme so that they are not lost to the NHS. Their programme may, for instance, be mapped to demonstrate they have the requisite knowledge and skills to become an Assistant Practitioner.	programme, supporting existing staff to undertake professional training. It is considered better to tailor education and training to individual needs/lifestyles and providing stepping off and stepping on points.
	available through flexible funding arrangements Provide support for those students whose course registration may be interrupted eg due to pregnancy by keeping in touch (not out of sight/out of mind) so that students feel still part of the student cohort- eg via newsletter/ text messages.	
Case study: Sheffield Hallam The university provides a tailored can be counselled onto it if they but want to remain in a health re	I programme where a student fail the radiography programmes	

Retention Goal	Guidelines	Background

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6e. To provide excellent interorganisational working relationships.	Universities to adopt proactive and positive approaches to their relationships with the providers of clinical placements and vice versa. Appropriate and relevant opportunities must be available in placements to enable students to meet their learning outcomes. Carry out regular joint audits to evaluate the clinical placement experience of students. Involve clinical staff in developing and delivering a range of assessments eg OSCEs which provides a sense of clinical ownership and involvement in development of students' academic performance. On going training in the clinical environment for student mentors stressing changes in students' expectations and the necessity to be flexible with regard to students' time and their commitments. Investigate complaints in a fair and transparent manner in line with the appropriate HEI's or Trust's policy.	The PWR (2000) report mentioned that improving links between HEIs and clinical sites is important in connection with retention. Price et al (2000) found that the cultures of the clinical department and the effectiveness of the clinical tutor were pivotal in students' perception of quality. Their research found that involving a wide range of staff in a monitoring process confirmed that the audit of clinical placements is an effective tool in discriminating objectively within and between clinical placement sites. The responsibility of employers and Workforce Development Confederations to establish good quality practice placements is emphasised in 'A Health Service of all the Talents' (DH 2000b). In addition, the HEI system needs to develop its ability to respond quickly to the changing requirements of the NHS both in terms of curriculum development and in new courses.
Case study: Christie Hospital, Manchester The Christie hospital is one of Europe's leading cancer centres and recently (Mar 9th 2009) with five other Greater Manchester NHS trusts and the University of Manchester been designated as the Manchester Academic Health Science Centre (MAHSC). The Christie website provides detailed information for university nursing students regarding rotational and elective clinical placements. See: http://www.christie.nhs.uk/professionals/education/education-and -training/		Case study: University of Salford A group of clinical tutors who support the Undergraduate Diagnostic Radiography students at the university were charged with developing the summative OSCE for first year students. They produced an evidence-based assessment which closely matched the clinical learning experiences of students across all 14 placements thus making the assessment realistic and equitable. Clinical staff who are designated mentors for post

graduate students are invited to the mentor training days which raise awareness of the programme and assessments, reflection plus the requirements of a mentor.

7. References

- Approvals and Accreditation Board (AAB) Annual Report 2008
- Arulampalam, W., Naylor, R.A., Smith, J.P., 2007. Dropping out of medical school in the UK: explaining changes over ten years. Medical Education 41:385-394
- Blunkett, D., 2000. Higher Education Funding for 2001-02 and Beyond. Letter received by Sir Michael Checkland, Chair of HEFCE. 29th November
- Bowles, N., 1995. Methods of nurse selection: a review. Nursing Standard Jan 4-10; 9(15), 25-29.
- Brodie, D., et al 2004. Perceptions of nursing: conformation, change and student experience International Journal of Nursing 41(7) 721-33
- Centre for Economics and Business Research 2008
- Chapman, N.A., Oultram, S.C., 2007. Enhancing the RT student clinical experience: Newcastle Mater Hospital Radiation Oncology Department Radiography Vol 13 (2): 159-163
- College of Radiographers, 2009. Approval and Accreditation Board Annual Report for academic year 2007- 2008. CoR London
- Davies, P., 1999. Student Retention in Further Education: a problem of quality or student finance? Paper presented at British educational research association conference, University of Sussex 2-5 September. Available on www.leeds.ac.uk/educol/documents/00001257.doc
- Department of Health Sept 2006. Managing attrition rates for student nurses and midwives: a guide to good practice for SHAs and HEIs London: DH
- Department of Health 2000 a. Modernising Education, Training and Regulation London: DH
- Department of Health 2000 b. A Health Service of all the Talents: developing the NHS workforce London: DH
- Doughty, J., Hodgson, D., 2009. Evaluation of a new clinical support model in radiotherapy practice Nurse Education in Practice 9 (1): 28-35
- Edwards, J.C., Johnson, E.K., Molidar, J.B., 1990. The interview in the admission process Acad Med 65: 165-177
- Ehrenfeld, M., Tabak, N., 2000. Value of admission interviews in selecting of undergraduate nursing students J Nursing Management 8 (2) 101-106
- Forbes, A., 2008. A new retention model HEA annual conference July 2008
- Gibbs, G., 2000. 'Are the pedagogies of the disciplines really different?' in Gibbs, G. Improving Student Learning: improving student learning through the disciplines. Oxford: OBU Centre for Staff and Learning Development
- Glossop, C., 2001. Student nurse attrition from pre-registration courses: investigating methodological issues. Nurse Education Today. 21: 170-80
- Harley, D., Winn, S., Pemberton S., Wilcox, P., 2007. Using text to support students' transition to university. Innovations in Education and Teaching International. 44:3: 229-241
- Heagney, M., 2008. Student success and student diversity in Crosling, G. et al (eds) 2008 Improving Student Retention in HE. London: Routledge
- Higher Education Funding Council for England. 2001. Memorandum to the House of Commons Select Committee on Education and Employment, HC 124 Jan 2001
- Hulsman, R.L., et al 2007. Effectiveness of selection in medical school admissions: evaluation of the outcomes amongst freshman. Medical Education 41: 369-77
- Johnes, G., McNabb, R., 2004. Never give up on the good times: student attrition in the UK.

Oxford Bulletin of Economics and Statistics 66 (1): 0305-9049

- Kirk, K., 2008. Diversity and Achievement : developing the learning of non-traditional HE students. In Crosling, G. et al (eds) 2008. Improving Student Retention in HE London: Routledge
- Koc, T., Katona, C., John Rees, P., 2008. Contribution of medical students to admission interviews. Medical Education 42: 315-321
- Keenan, C., 2008. Students getting down to work before they start at university: a model for retention. In Crosling, G. et al (eds) 2008. Improving Student Retention in HE London: Routledge
- Lambert, V., Glacken, M., 2005. Clinical education facilitators: a literature review Journal of Clinical Nursing 14: 664-73
- McAllister, M., McKinnon, J., 2008. The importance of teaching and learning resilience in the health disciplines: a critical review of the literature. Nurse Education Today doi:10.1016/j.nedt.208.10.011
- McLaughlin, K., Moutray, M., Muldoon, O., 2008. The role of personality and self-efficacy in the selection and retention of successful nursing students: a longitudinal study. Journal of Advanced Nursing 61, 2: 211-221.
- McSherry, W., Marland, G.R., 1999. Student discontinuations: is the system failing? Nurse Education Today 19: 578-585
- Martinez, P. 1997. Improving student retention: a guide to successful strategies. FEDA
- Martinez, P.2000. Raising achievement: a guide to successful strategies. FEDA.
- Montmarquette, C., Mahseredjian, S., Houle, R., 2001. The Determinants of University Dropouts: a Bivariate Probability Model with Sample Selection. Economics of Education 20, 474-484
- Moore, N., 1995. Persistence and Attrition at San Juan College. Farmington, NM: Office of Institutional Research, Grant Development and Planning, San Juan College.
- National Radiotherapy Advisory group. 2000. –Radiotherapy provision in England workforce sub group repor
- National Audit Office 2007. Staying the Course: the Retention of Students in Higher Education. London: TSO
- Nicol, D.J., 2006. Increasing success in first year courses: assessment re-design, self regulation and learning technologies. Paper presented at ASCILITE Conference Sydney Dec 3-6 2006
- Nicol, D.J., Macfarlane-Dick, D., 2006. Formative assessment and self regulated learning: a model and seven principles of good feedback practice. Studies in Higher Education 31(2): 199-218
- Nursing Standard 2008. Report from Joint Staff Side paper on Healthcare student support. Nursing Standard April 9th 22 (31)
- Ogden, P.E., Wu, E.H., Elnicki, M.D., 2005. Do attending physicians, nurses, residents and medical students agree on what constitutes medical student abuse? Academic Medicine 80: \$80-3
- Pryjmachuk, S., Richards, D.A., 2008. Predicting stress in pre-registration students attending a university in Northern England. Midwifery March 24(1)
- Quinn, J. et al 2005. From life disaster to lifelong learning: Reframing working class 'drop out' York: Joseph Rowntree Foundation
- Royal College of Nursing 2002. Dealing with bullying and harassment: a guide for nursing students. RCN:London
- Roding, K., Nordenram, G., 2005. Students' perceived experience of university admission based on tests and interviews. European Journal of Dental Education 9: 171-9
- Sanz, T., Marcoulides, G., Junn, E., Young, R., 1999. The relationship between college experience and academic performance among minority students. International Journal of Educational Environment 13(4): 199-208
- Sellers, J., van der Velden, G., 2003. Supporting student retention. Continuing Professional Development Series 5 London: LTSN Generic Centre
- Smith, J.P., Naylor, R.A., 2001. Dropping out of university: a statistical analysis of the probability of withdrawal for UK university students. J.R. Statis Soc A 164 Part2 : 389-405
- South West London SHA 2006.. Student Recruitment and Retention Guide for Diagnostic and Therapeutic Radiography Feb 2006
- Sparkes, V.J., Mason, C., 2002. Widening participation in physiotherapy education Part 3:

mature students in undergraduate education. Physiotherapy 88 (5): 285-294

- Spouse, J., 1998. Learning to nurse through Legitimate Peripheral Participation. Nurse Education Today 18: 345-51
- Stone, A., 2004. Blended learning, mobility and retention: supporting first year university students with appropriate technology. Proceedings of MLEARN 2004: Mobile Learning anytime everywhere (pp. 183-186) London: Learning & Skills Development Agency
- Stapleford, J., Todd, C., 1998. 'Why are there so few ethnic minority speech and language therapists?' International Journal of Language and Communication Disorders. 33: 261-266
- Tinto, V., 1975. Dropout from Higher Education: a theoretical synthesis of recent research. Review of Educational Research 45(1): 89-125
- Tinto, V., 1982. Limits of Theory and Practice in Student Attrition. Journal of Higher Education 53(6): 687-700
- Tinto, V., 1993. Leaving college: rethinking the causes and cures of student attrition. (2nd ed) Chicago: University of Chicago Press
- Tinto, V., 2005. Student success and the building of involving educational communities. Paper presented at Seattle University, Sept 15th 2005.
- Tinto, V., 1999. Taking retention seriously: Rethinking the first year of college. NACADA Journal 19(2) 5-9
- Wilcox, P. et al 2005. 'It was nothing to do with the university, it was just the people': the role of social support in the first year experience of higher education. Studies in Higher Education 30 (6): 707-22
- Windham, P., 1994. The Relative Importance of Selected Factors to Attrition at Public Community Colleges. Paper presented at the 23rd Annual Conference of the Southeastern Association for Community Colleges, August 1-3 1994, Savannah, Georgia
- Yorke, M., Longden, B., 2004. Retention and student success in Higher Education. Milton Keynes SRHE and the OU
- Yorke, M., 1999. Leaving early; undergraduate non-completion in Higher Education London: Falmer
- Yorke, M., 2003. Why students leave early in Higher Education in the UK. OU, May 2003

Bibliography

- Begley, C.M., Glacken, M. 2004 Irish nursing students' changing levels of assertiveness during the pre registration programme Nurse Education Today 24(7): 501-10
- BMA 2006. Bullying and harassment of doctors in the workplace report London:BMA
- Cook,A. and Rushton, B.S. 2009. How to Recruit and Retain Higher Education Students: a handbook of good practice to be published 16th June 2009.
- Department of Health 2001a. Placements in Focus: guidance for education in practice for health care professionals London: DH
- Department of Health 2001b. Education and training the future health professional workforce for England London: DH
- Lambert, V., Glacken, M., 2004 Clinical Support Roles: a review of the literature.... Nurse Education in Practice 4 (3):177-183
- Mulholland, J., Mallik, M., Moran, P., Scammell, J., Turnock, C.. 2005. Making Practice-Based Learning Work. The Higher Education Academy, London.
- National Audit Office 2001 Educating and Training the future Health Professional Workforce for England. March, London: TSO
- Price, R., Hopwood, N., Pearce, V., 2000. Auditing the clinical placement experience Radiography 6 (3): 151-159
- Randle, J., 2003. Bullying in the nursing profession. Journal of Advanced Nursing 43(4): 395-401
- Society and College of Radiographers 2006. Clinical Education and Training: Guidance and Strategies of Effective Relationships between Education Providers, Placement Providers and Learners.

- Wakefield, A., 2000. Tensions experienced by student nurses in a changed NHS culture Nurse Education Today 20(7): 571-8
- Yorke, M., 2005. Promoting student success. London South Bank University 21st Jan 2005

Appendix 1

DH 2006 definition of attrition terminology

Retention

In the context of enrolment, retention is the rate at which students continue on a programme.

Defining Attrition

The Department of Health commissioned a joint review between the Higher Education and Health Sectors to define attrition from NHS funded courses.

The recommended definition of attrition to be applied to 'completed' cohorts was:

Starters(a) + Transfers In(b) - Transfers Out(c) - Numbers Completing(d) Starters(a) (a) 'Starters' includes 'New Entrants' (i) and 'Advanced Standing Entrants'. (ii)

(i) 'New Entrants' are those students who have not studied on a particular cohort previously and who start at the commencement of the cohort. The category includes students who commence after the first day of the programme, ie due to annual leave, sickness, late decision to join etc. It excludes students who attend only on the first day of a course and leave immediately.

(ii) 'Advanced Standing Entrants' are those students who have not studied on a particular cohort previously and who are eligible to join at a point past the commencement of the cohort, i.e. joining from a cadet scheme, FE College or AP(EL) and whose claim for advanced standing has been agreed by the HEI and the appropriate Workforce Development Confederation or SHA Workforce Directorate.

(b) 'Transfers In' includes 'Transfers In (Internal)' (iii), 'Transfers In (External)' (iv) and 'Resumptions'. (v)

(iii) **'Transfers In (Internal)'** are those students who have transferred into a particular cohort from another cohort within the same HEI, normally due to an interrupt, or from another branch of training, e.g. from Adult to Mental Health.

(c) **'Transfers Out'** includes **'Transfers Out (Internal)'** (*vi*) and **'Transfers Out (External)'** (*vii*).

(vi) **'Transfers Out (Internal)'** are those students who have transferred onto another cohort within the same HEI, normally due to an interrupt or due to a transfer to another branch of training, e.g. Mental Health to Adult.

(vii) **'Transfers Out (External)'** are those students who have transferred onto the same programme at another HEI.

(d) 'Numbers Completing' or 'Qualifiers' are those students who have successfully completed their programmes and who are eligible to enter the professional register, where applicable. The same Department of Health report also gives definitions relating to intermediate attrition rates for cohorts who have not yet reached the end of their programmes. However, this particular document is only concerned with attrition rates relating to completed cohorts.

Appendix 2

Brodie et al (2004) refers, for nursing students, to the complex mix of multifactoral issues affecting student voluntary dropout including:

- Lack of support during placement
- Travelling difficulties
- Financial hardship
- Personal or family problems
- Disparity in perceptions
- Disillusionment with the health service
- Overwhelming challenges encountered in the educational programme and in clinical placements

Some of these may be reduced through increased support, financial subsidy and academic tutoring – other experiences are not likely to be reduced unless timely and positive changes are made to the health system as a whole.

Brodie D et al 2004 Perceptions of nursing: conformation, change and student experience International Journal of Nursing 41(7) 721-33 2004

Glossop (2001) reports a lack of common definitions of attrition, low response rates in surveys, imprecise definition of categories of reasons for leaving and a dearth of studies on students' perspectives.

Some of the factors which may contribute to nurse attrition:

- Academic failure
- Personal or family reasons
- Wrong career choice
- Financial problems
- Travel difficulties
- Poor programme management
- Ill health
- Negative staff attitudes
- Programme pressures
- Inadequate pre programme information
- Lack of tutor support
- Theory/practice imbalance
- Variable placements

Glossop C (2001) Student nurse attrition from pre registration courses: investigating methodological issues 21(3); 170-180

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