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This paper explores the links between socio-economic disadvantage, non-completion in higher education and preparation initiatives. It does this through investigating the effectiveness of the Top-Up Programme, a preparation course for 17 and 18 year olds from schools that have low participation rates in higher education. The University of Glasgow, on behalf of the West of Scotland Wider Access Forum, has responsibility for running the Top-Up Programme. It is part of the Scottish Higher Education Funding Council and local education authority funded GOALS (Greater Opportunity of Access and Learning with Schools) Project. The paper examines the hypothesis that students who undertake programmes such as the Top-Up Programme can counteract the effects of disadvantage through being prepared academically. The investigation is undertaken within the contexts of widening access research and theoretical models of student non-completion. This study reviewed the available data for the 44 schools involved in the Top-Up Programme, their levels of disadvantage as defined by their participation rates in higher education, and levels of non-completion at the University of Glasgow. This revealed that groupings of schools with extremely low participation levels have higher non-completion rates than less disadvantaged schools. At the same time, the authors attempted to investigate this finding further through examining a group of 44 similar comparative schools. The students' perceptions of the effectiveness, in terms of preparation for higher education, of undertaking the Top-Up Programme were also assessed by conducting interviews and administering questionnaires to the Top-Up students and other groups of students. The Top-Up students perceived that it had provided highly relevant preparation and had eased the transition from school to higher education. The effectiveness of the Top-Up Programme was also quantified by reviewing the pass/fail rates of the first-year students who had undertaken Top-Up in comparison to those who had come from the comparative groups. The results indicated that the Top-Up students were progressing at better rates than the other groups despite many more having come from the extremely low participation schools, known to be 'at risk'. The main outcome determined was that there is a link between attending an extremely low participation rate school and non-completion, despite similar pre-entry qualifications to other students. This indicates that disadvantage continues to impact on students' achievements throughout their educational careers. We argue that the result has implications for both wider access policies and non-completion research.

Introduction

Most higher education institutions in the UK have been involved in increasing participation generally for students over the past decade. Participation, in terms of

numbers of students, has indeed risen dramatically over this period. The figure for Scottish school leavers directly entering higher education in 2000 was 32% (Statistical Bulletin 2000). However, concerns (Hutchings and Archer 2001) over the under-representation of the lower socio-economic groups continue to exist. Therefore, many institutions focus their efforts on examining the demographic backgrounds of their students and often, as a consequence, on strategies to attract wider access students to their institutions.

Evidence, over many years, indicates that there is an irrefutable link between family background and educational underachievement. One of the most crucial early pieces of research, undertaken in the 1960s in the USA, was the Coleman Report. There were two main findings. Firstly, that the most important factor in educational achievement is family background and secondly, that variations lie within the same school not between schools. The implication being that background differences account for far more variations than school differences. Coleman states:

> Altogether, the sources of inequality of educational opportunity appear to lie first in the home itself and the cultural influences immediately surrounding the home; then they lie in the schools' ineffectiveness to free achievement from the impact of the home, and in the schools' cultural homogeneity which perpetuates the social influences of the home and its environs. (Coleman, 1966: 73–74).

Similar findings were emerging in the UK at the same time (Robbins 1963, Douglas 1964). Willms (1986) found that the correlation between school mean attainment and school mean socio-economic status was high; however, conversely, he found that school effects were also substantial. Research indicating the importance of the relationship between the home and school continued to identify similar findings to those of the Coleman and Robbins Reports (Davie *et al.* 1972, Wedge and Prosser 1973, Burnhill 1981).

Burnhill (1981) examined the relationship between examination performance and social class amongst Scottish school leavers. She observed that, at each level of achievement, the percentage passing declines across the social classes from I to V. At the extremes, 95% from social class I left school with at least some qualification and 58% had three or more SCE Higher passes, compared to 45% and 4% respectively of those children from social class V.

Reid (1992) also identified a clear over-representation of the middle-classes in higher education. He found that the middle-classes made up 35% of the population but 80% of university undergraduates. On the other hand, the working classes made up 65% of the population but 19% of undergraduates. These figures were only slightly less pronounced for further education. At the extremes, 22% of university undergraduates were from social class I and 1% from social class V, despite the latter being a larger percentage of the population, 7% compared to 5%.

Ball *et al.* (2002) point out that various studies confirm that the overall dominance of the middle classes remains today. The 'participation gap' between the professional classes and the unskilled classes rose from 62% to 66% from 1993 to 1997. Hutchings and Archer (2001) reinforce this by indicating that government figures for 1997–1998 show that 80% of young people from professional

backgrounds entered higher education, 19% from skilled manual backgrounds and 14% from unskilled groups.

These more recent figures appear to indicate that the class gap has remained constant and seems resistant to change despite many higher education institution initiatives. For example, the University of Glasgow has had a Mature Students' Access Programme since 1979 and a Pre-University Summer School, for school leavers, since 1986. Indeed the University of Glasgow has recently received the second largest SHEFC grant in Scotland to support our wider access students, based on student numbers. Institutions such as the University of Glasgow fall into the trap where we have succeeded in encouraging wider access students but have also increased numbers more generally.

One of the central questions that should be raised is, if we can attract more wider access students can we also retain them? There is an increasing recognition that educational disadvantage can also apply to higher education, that removing barriers to application or entry does not solve the problem of the link between socio-economic status and educational disadvantage. Haque (2001) states:

> In fact, universities may be exacerbating the 'disadvantaged position' of some minority ethnic and lower social class groups because they have not sufficiently examined issues relating to access to university, or monitored students' retention and performance once they are in the university system. (Haque 2001: 113)

Haque found that, despite pre-entry qualifications being similar, approximately 80% from higher social backgrounds obtained upper and lower second class degrees compared to approximately 70% of lower social groups. Also, higher proportions of the lower social class groups achieved third class and intermediate degrees.

Recent evidence (Walker 2000, Patrick 2001a) indicates that retention rates vary quite considerably amongst wider access groups. The attrition rate for the students who have attended the University's Mature Students' Access Programme at the University of Glasgow is 9.1%, slightly lower than the overall rate. There is also evidence (Walker 1996) to show that students who attend the pre-university summer school are less likely than their counterparts from the same schools to not complete degrees, in most faculties. However, there are still clear links between parental occupation and attrition. Patrick states:

> Attrition rates also seem to be sensitive both to parents' occupational classes and to postcodes. The attrition rates for Classes IV (Partly skilled) and V (Unskilled) were 17.2% and 26.4% respectively, whereas there was a 16.5% attrition rate among students coming from those neighbourhoods within Scotland reckoned to have the lowest participation rates in post-secondary education. Policies to reduce figures such as these feature prominently in the Scottish Executive's social agenda. (Patrick 2001a: 5)

The top-up programme

The University of Glasgow is involved in the SHEFC (Scottish Higher Education Funding Council) and local education authority funded GOALS (Greater Opportunity of Access and Learning with Schools) Project, which focuses on

encouraging lower socio-economic groups of school pupils to consider higher education as a realistic option. This Project offers a continuum of provision from ages 10 to 18, building from fun activities to a rigorous preparation course, the Top-Up Programme. GOALS is delivered by all seven of the Higher Education Institutions (HEIs) in the West of Scotland to 44 secondary schools and their 255 associated primary schools. The GOALS project began in August 2000 and will run for at least eight years in order to allow pupils who start the programme at age 10 to progress through the entire system.

The University of Glasgow is responsible for the Top-Up Programme as part of the GOALS Project. The Top-Up Programme provides a 'mini' higher education experience and runs from January to April. It is facilitated by postgraduate tutors who tutor in pairs with a maximum of 15 pupils. The pupils are involved in 12 sessions, nine in school and three on campus. The notion is that the three campus visits play a key and pivotal role in the Programme by providing relevant and appropriate preparation. The school sessions are designed to either prepare the students for the campus activities or to extend the work undertaken during the campus visits. On campus they participate in a lecture, deliver a seminar paper (undertake a problem solving exercise if a scientist) and undertake a library search. Through their participation in these activities they are acquiring 'essential skills for higher education', such as critical thinking, deep and active learning, conceptual thinking, and a well-developed writing style. The notion is that the programme fosters 'independent learning' which, we argue, is required for successful participation in higher education (Walker *et al.* 2001).

The Top-Up Programme is contextualized in the broad subject area of Loch Lomond and Scotland's first National Park at Loch Lomond and the Trossachs. This topic has been selected because it is multidisciplinary. It allows our pupils to examine topics such as literature and the arts, historic and contemporary, based around the Loch Lomond area, sustainable development and the impact of tourism, and the scientific issues of degradation caused by the increased numbers of jet skis and the introduction of non-native fish species. A brief outline of the sessions is shown below:

Session	Agenda
1 (School)	Defining the task: general introduction to the programme
2 (School)	Examining & planning the task: introduction to note-taking and subject content
3 (On Campus)	Attending a lecture: lecture and deconstructing notes
4 & 5 (School)	Preparing for a seminar/planning for a scientific tutorial
6 (On Campus)	Attending a seminar/scientific tutorial
7 (School)	Planning an essay/written assignment for scientists
8 (On Campus)	Gathering source material (library)
9, 10 & 11 (School)	Getting down to writing
12 (School)	Exam questions and revision techniques

The students are assessed on the programme and successful completion of the programme can assist in gaining admission to any of the seven GOALS HEIs, usually through completion of the course at or above a certain level of ability. The assessment is in three parts, overall performance, tutorial work and the final written assessment. The pupils' results are circulated to the GOALS HEIs where they have made firm and insurance UCAS choices. In 2001, approximately 540 pupils from 39 of the 44 schools commenced Top-Up, with 369 completing the full programme (Top-Up is not a compulsory element of the curriculum and some students chose to withdraw after receiving their UCAS offers). Subsequently 67 of these pupils entered the University of Glasgow (12 using Top-Up to assist with entry) and many others (165) have entered other HEIs. It should be noted that not all pupils in GOALS schools undertake the Top-Up Programme. The total number of GOALS pupils entering the University in 2001 was 222.

Review of the GOALS/Top-Up schools and similar comparative schools

A review of the 44 schools that participate in the GOALS Project, and the Top-Up Programme as part of that, was undertaken. This looked, initially, at the numbers entering the University of Glasgow over the eight-year period 1993–2000. These years were selected to provide a baseline comparison for the future. The GOALS Project commenced in 2000–2001 and is intended to run for at least eight years to allow those who have become involved in Primary Six time to complete the full range of activities by Secondary Six. The review also examined the participation rates in higher education of the schools for the year 1999–2000. This year was examined in more detail as it represented the last year before the GOALS project commenced.

At the same time, we undertook the same review with a group of 44 comparative schools. The selection of a comparative group of schools can be undertaken by various means. Walker (1996), when selecting a group of non-summer school schools, employed the use of the Spearman Correlation Test (Cadogan and Sultan 1994). This test identifies the significance of the correlation between suitable pairs of discriminators, e.g. the relationship between the 'deprivation' percentage and the 'attainment' percentage in a school. More recently, in part based on the work of Rabb (SHEFC 1998), the examination of postcode areas has come to the fore as a method of reviewing disadvantage and is used to attract wider access premiums to institutions.

However, as the GOALS Project is an Education Authority schools-based project, working with thirteen Education Authorities, it seemed reasonable to select, as far as possible, the same number of similar schools from the same Education Authorities. To this end, the schools within the Education Authorities were selected and reviewed by their participation percentages and, to a lesser extent, by similar proximity to the University. However, it was not entirely possible to select the same number of schools for all Education Authorities. For example, there are 29 schools in Glasgow City Council and 17 of these are in the GOALS Project. This meant that all of the 12 non-GOALS schools were included and the short fall was made up by selecting additional similar schools from other authorities. Further, as the GOALS Project targets the lowest participation schools it would be unlikely that the same

**Table 1. Yearly numbers entering the University of Glasgow from the 13
education authorities, GOALS and non-GOALS schools**

Schools	1993	1994	1995	1996	1997	1998	1999	2000	Total
GOALS (44 schools)	196	125	155	139	138	140	197	172	1262
Non-GOALS (44 schools)	243	273	227	204	280	281	283	284	2075

number of similar schools would be available to be selected. However, we argue that
the review produced the most 'reasonable' set of schools available.

The numbers, for both sets of schools, entering the University of Glasgow are
given below in table 1. There is clearly no uniform trend in the numbers entering
the University of Glasgow. They can drop considerably from year to year, e.g.
GOALS schools 1993–1994, or rise considerably, e.g. non-GOALS schools
1996–1997. The average number entering each year for the GOALS schools was
158 and was 259 for the non-GOALS schools. This is an indication that the non-
GOALS schools' participation rates in higher education are likely to be generally
higher.

A closer examination indicates that the GOALS and non-GOALS schools can be
divided into four groups by their levels of participation at the University over the
eight-year period. These are:

Group One   Schools where an average of two or less students
(18 GOALS schools)   per year entered the University
(6 non-GOALS schools)

Group Two   Schools where an average of three or four students
(10 GOALS schools)   per year entered the University
(12 non-GOALS schools)

Group Three   Schools where an average of five or six students
(9 GOALS schools)   per year entered the University
(5 non-GOALS schools)

Group Four   Schools where an average of seven or more stu-
(7 GOALS schools)   dents per year entered the University
(21 non-GOALS schools)

The performance of the students from the four groups and the two sets of
schools is given below in table 2 (non-GOALS schools are given in parenthesis).

The eventual percentage of graduates, of course, will be higher than the figures
given as many of the students are still progressing with their degree courses. The
percentages of those who have graduated with Honours and Ordinary degrees are
very similar for the two sets of schools, over the four groups, as are the non-
completion rates. Non-completion is defined as a situation where a student has not
graduated and is not currently progressing with a degree course at the University.
Therefore, this number will include students who have transferred to other
institutions or have taken time out.

Table 2. The performance of students from the four groups and the two sets of schools (GOALS and non-GOALS) at the University of Glasgow over the period 1993–2000

	No.	Graduates No.	%	Honours degrees No.	%	Ordinary degrees No.	%	Non-completion No.	%
Group One ≤ 2 students per year **Schools**									
18 GOALS	180	68	37.78%	45	66.18%	23	33.82%	54	30.00%
6 non-GOALS	(62)	(28)	(45.16%)	(18)	(64.28%)	(10)	(35.71%)	(22)	(35.48%)
Group Two 3 or 4 students per year **Schools**									
10 GOALS	232	92	39.66%	62	67.39%	30	32.61%	51	21.98%
12 non-GOALS	(274)	(129)	(47.08%)	(85)	(65.89%)	(44)	(34.11%)	(71)	(25.91%)
Group Three 5 or 6 students per year **Schools**									
9 GOALS	361	134	37.12%	89	66.42%	45	33.58%	80	22.16%
5 non-GOALS	(197)	(105)	(53.30%)	(79)	(75.24%)	(26)	(24.76%)	(48)	(24.37%)
Group Four ≥ 7 students per year **Schools**									
7 GOALS	489	209	42.74%	141	67.46%	68	32.54%	100	20.45%
21 non-GOALS	(1542)	(753)	(48.83%)	(534)	(70.92%)	(219)	(29.08%)	(366)	(23.74%)
Total GOALS	1262	503	39.86%	337	67.00%	166	33.00%	285	22.58%
Total non-GOALS	(2075)	(1015)	(48.92%)	(716)	(70.54%)	(299)	(29.46%)	(507)	(24.43%)

The percentages of Honours and Ordinary are relative to the corresponding numbers of graduates.

A simple count of the numbers of schools in each of the groups reveals that the schools are not truly comparative, in that the largest number of GOALS schools, 18, are in Group One (lowest participation), whereas the largest number of non-GOALS schools, 21, are in Group Four (highest participation). A review of the non-completion rates for the four groups of GOALS schools reveals that the percentage for Group One, 30.00%, is considerably higher than for the other three groups, 21.98%, 22.16% and 20.45% respectively, and the overall percentage, 22.58%. At the same time, as seen in the data for the GOALS schools, the non-completion rate for Group One of the non-GOALS schools, 35.48%, is considerably higher than those of the other three groups, 25.91%, 24.37% and 23.74% respectively, and the overall percentage, 24.43%. This, therefore, replicated the trend identified with the GOALS schools.

We decided that this should be investigated further as there appeared to be a link between low levels of participation, at least at the University of Glasgow, and non-completion. We, therefore, examined each of the sets of schools, in each of the four groups, by their overall participation percentage in higher education.

The year selected to be examined was that of school leavers, 1999−2000. For that year, the average percentage for state schools in Scotland participating in higher education was 32% (Statistical Bulletin, 2000: 3). The clustering of percentages entering higher education generally for each of the four groups of schools and by their levels of participation at the University of Glasgow, GOALS and non-GOALS, is shown below in table 3 (non-GOALS schools are given in parenthesis).

There are 11 GOALS schools in Group One with very low percentage participation rates in higher education, ranging from four to ten percent. Conversely, there are no schools, GOALS and non-GOALS, in Groups Two, Three and Four with such low percentages. As would be expected for the non-GOALS schools, the majority of schools with high participation rates, greater than or equal to 31%, are in Group Four (the group with the highest participation at the University of Glasgow). The disparity in participation rates between the two sets of schools confirms our hypothesis that the schools are, indeed, not truly comparative.

Reference to tables 2 and 3 in tandem indicates a potentially worrying trend (although only tested on a small scale). The non-completion rates at the University of Glasgow for both GOALS and non-GOALS schools were considerably higher in Group One than the other three Groups, 30.00% for GOALS schools and 35.48% for non-GOALS schools. Not only do many of the GOALS schools in Group One have a very low participation rate in higher education overall but also there appears to be a link between very low participation, at least at the University of Glasgow, and increased risk of non-completion.

The Planning Office (Patrick 2001b), University of Glasgow, conducted a survey of first-year non-continuance at the University for the year 1999−2000. The results of this indicated that 11.66% of all Scottish school leavers did not continue their studies. That year 197 students entered the University from the GOALS schools; 19.29% of the GOALS students did not continue. Clearly, the percentage is considerably higher than that for all Scottish school leavers.

In summary, the most important result to emerge from this review was that there was a clear link between low participation at the University of Glasgow and high non-completion. This introduces the notion that the link with non-completion may be both tied to attending very low participation rate schools in the West of Scotland

Table 3. The percentage participation in higher education for the four groups of schools and the levels of participation at the University of Glasgow

	No. of schools with 0–10 % in HE	No. of schools with 11–15% in HE	No. of schools with 16–20% in HE	No. of schools with 21–30% in HE	No. of schools with ≥ 31% in HE
Group One					
≤ 2 students per year entering					
the University of Glasgow					
Schools					
18 GOALS	11	3	2	1	1
6 non-GOALS	(1)	(–)	(4)	(1)	(–)
Group Two					
3 or 4 students per year entering					
the University of Glasgow					
Schools					
10 GOALS	–	2	4	3	1
12 non-GOALS	(–)	(3)	(2)	(7)	(–)
Group Three					
5 or 6 students per year entering					
the University of Glasgow					
Schools					
9 GOALS	–	–	3	2	4
5 non-GOALS	(–)	(–)	(–)	(4)	(1)
Group Four					
≥ 7 students per year entering					
the University of Glasgow					
Schools					
7 GOALS	–	1	1	5	–
21 non-GOALS	(–)	(2)	(3)	(6)	(10)

and/or to being the only one or one of very few students from a particular school which may induce feelings of isolation.

Student non-completion

The reviews of the GOALS and the non-GOALS schools indicated that students who attend the University of Glasgow are less likely to complete degrees if there are very few others from their school also attending. At the same time, there is a link between attending a very low participation rate school and non-completion.

There are, potentially, many reasons for this. Hutchings and Archer (2001) reviewed various factors that have been identified as leading to non-participation or under-representation. Some schools may have a 'poverty of aspirations' for their pupils in terms of advice and options. Anecdotally, we found an example of a 'wealth of aspirations' within a non-GOALS school, where 19 of the 68 (28%) entrants over the eight-year period were studying or had studied Medicine. Medicine is one of the most 'prestigious' courses at the University, takes small numbers each year and has high entry tariffs, 28% from the school would be a considerable over-representation on this course.

Financial factors, and lack of knowledge of the costs of higher education, may act as deterrents. Low academic achievement where fewer pupils achieve minimum entrance requirements would also lead to under-representation. Hutchings and Archer (2001) also cite class aspirations, family influences and working-class conceptions of higher education, where students perceive higher education to be a culture dominated by the middle classes and, therefore, expect to feel alienated.

The notion of alienation is a key factor in theoretical models of non-completion. Bourdieu (1988) (cited in Ball *et al.* 2002) terms the working-class students that get through 'lucky survivors' and suggests that they are atypical: 'the least disadvantaged of the most disadvantaged'. Thomas (2002) builds on Bourdieu's work and uses the concept of institutional habitus to describe alienation. The term habitus was originally coined by Bourdieu and refers to the norms and practices of particular social classes. A person's habitus is largely acquired through family interactions. Bourdieu argues that there are two ideas behind habitus: firstly, that classes need to reproduce themselves and, secondly, that certain classes or groups are dominant. Thomas argues that educational institutions favour the knowledge and experiences of dominant social groups that, she suggests, are primarily white, middle-class and male. This results in the system being socially and culturally biased. It, therefore, follows that institutional habitus can be a significant variable in alienation and non-completion.

Theoretical models of student non-completion that focus on student integration were originally drawn from the work of Durkheim (1951) (cited in Spanard 1990) in his study of suicide. Durkheim found that people were less likely to commit suicide if they shared common values with others, for example, he demonstrated that married Italian Catholics in tightly knit families in small towns were less likely to commit suicide than unmarried urban Protestant Englishmen (Tierney 1992).

There is a strong suggestion that student non-completion is a longitudinal process. Spady (1970) outlines that the student's past experiences, i.e. values and experiences learned prior to reaching college, and the student's current

interaction with the new environment would all play a role in the student desire to leave.

One of the most influential researchers in the area is Vincent Tinto. Tinto's 1975 model was also longitudinal and was based on the degree of fit between the student and the college environment. Tinto's model was based on the notion that students enrol with a range of background characteristics, such as race, secondary school achievement, academic aptitude and family socio-economic levels. These background traits lead to initial commitments to the goal of graduation as well as commitment to the institution. Background traits and initial levels of commitment jointly influence integration into the academic and social systems of a given institution. Other things being equal, the greater the individual's level of social and academic integration, the greater the subsequent level of both institutional commitment and commitment to graduation. These subsequent commitments, in turn, have a direct influence on persistence (Tinto 1975, Pascarella and Chapman 1983, Pascarella and Terenzini 1983, Bean and Metzner 1985, Braxton *et al.* 1988, Stage 1989).

One of the problems with Tinto's original model is that it implies that student problems exert little or no influence on decisions to persist with the course. Whilst, for example, Braxton *et al.* (1988) argue that the influence of problems is outweighed by long-term commitments. At a later stage, Tinto (1987) re-examined his theory and discovered that there are four issues that could impact on student commitment. These are: differences in persistence between students at further education courses and higher education courses, financial difficulties, group-specific difficulties (including socio-economic status) and individual differences in voluntary withdrawal behaviour.

This model would suggest that the students we have identified in our study, who come from schools where there are few or no other people at the University, arrive feeling alienated because of their background characteristics. Due to these background traits and factors such as those cited above, they do not commit to the University nor do they see graduation as a realistic goal. This lack of commitment means that they do not become involved in the academic and social systems and, therefore, have no sense of belonging and thus are less likely to complete.

The effect of the Top-Up Programme on non-completion

Following this theoretical model of student non-completion, we decided to assess whether or not the Top-Up Programme would make any difference to the sense of belonging and preparedness of the students who had undertaken it, and thus, ultimately, to their completion rates. The hypothesis being that students who undertake the Top-Up Programme can, at least to some extent, counteract any effects of background characteristics through being prepared both academically and socially and by experiencing a mini higher education course which encourages them to feel as though they could and would 'belong' in higher education. The academic preparation would come through the skills taught in the programme and the social preparation through being familiarized with the campus and University environment as well as having met students from other schools during campus visits. This preparation in turn would promote integration required for successful completion.

We tested the hypothesis through undertaking meetings with three focus groups of approximately 15 students in each and administering semi-structured questionnaires to the three groups (numbers given below). The three groups of first-year students involved were:

- students who have come from the GOALS schools and have undertaken the Top-Up Programme (67 questionnaires);
- students who have come from the GOALS schools but have not undertaken the Top-Up Programme (155 questionnaires); and
- students from the comparative non-GOALS schools (373 questionnaires).

We asked the three groups of students to identify the keys skills that they used and where they had learned them. All the groups determined that the most important areas of academic preparation required by first-year students were: note-taking, essay writing/planning including reading and research skills, IT skills and using the library.

When asked where they had acquired these skills, all of those who had undertaken the Top-Up Programme mentioned the programme as being their main source of knowledge. Conversely, GOALS and non-GOALS students mentioned school, University, friends and fellow students. This result indicated that the skills learned on Top-Up were perceived, by the Top-Up group, to be more applicable than the skills learned in school and the timing more appropriate than learning the skills after entering University. Comments included:

'Top-Up was excellent in providing an insight into university life and expectations'.

'pre-university courses like Top-Up are essential preparation for higher education'.

'Top-Up allowed me to practice note-taking and essay planning and writing. It continues to help throughout my first-year'.

'it gave me a chance to attend lectures, have a look at the University layout and how it is run. It made the first day seem less scary'.

'it helped in highlighting the importance of note-taking especially in the first month'.

'I think it helped me most in making the transition from school to University much easier'.

'it provided a confidence boost before going to University as we were able to talk about our worries and fears. It also gave a real insight into University life. The skills I learned are still helping now'.

'every student in every school should be offered the chance to do the Top-Up Programme'.

In order to establish a profile of the groups of students, we asked about time spent studying and in employment, and about accommodation. The average length of time spent studying for each of the groups was ten hours per week, with the lowest

stated time being two hours and the highest being 40. There were no appreciable differences between the groups. In total 64% of all the students had part-time jobs, 47% of the Top-Up group, 74% of the GOALS group and 67% of the non-GOALS group. Although the fewest numbers of working students came from the Top-Up group, those who were working were most likely to be working an average of 20 hours per week, whereas students from the other groups were most likely to be working around 15 hours.

The large majority (92%) of the students live at home with very few living in student flats or halls of residence. A few students stated that their accommodation was unsatisfactory for their study needs; most of these came from the GOALS group, followed by the non-GOALS group. Reasons given included noise, travel time to the University and room sharing.

The three groups of students were asked whether they had considered leaving the University and, if so, why. Over half (52%) had considered leaving. The Top-Up group were somewhat less likely to have considered doing so than the other two groups (31%). We then asked the students why they had considered taking this action. The most common reason across the three groups was that the workload was higher than they had anticipated and that it was hard to cope with. Both the GOALS and the non-GOALS groups stated that they had found the transition from school to University difficult to cope with, this was not a problem mentioned by the Top-Up group. Other problems mentioned less frequently included incorrect subject choice and personal and health problems.

Finally, we asked the groups of students what they thought the University should do to help students who may be considering leaving. All felt that more study support should be offered and comments from the Top-Up group included that an extension of this type of skills development should be offered. The three groups all mentioned that 'buddy' schemes and student-led study groups should be put in place. They also suggested that there should be more contact with advisers of study and more support from staff generally. Again, these findings emphasize the need for widening participation to be viewed as a commitment to continuing support by staff and students and not simply as an 'access' issue.

In summary, the results of the focus groups and questionnaires appear to follow the theoretical model of student non-completion. Students experience a greater sense of academic integration if they perceive themselves to be equipped with the skills required before commencing studying, i.e. have undertaken preparation courses such as the Top-Up Programme. Further, that social integration could be promoted by offering students the opportunities to become involved in peer group relations such as student-led study groups and by offering more support from and interaction with staff.

However, at this point, the question remaining to be explored was:—has the promotion of integration through academic preparation in the Top-Up Programme been able to counteract the effects of attending a low participation school and/or being one of very few people from the student's school attending the University, in terms of performance?

We reviewed the results of the three groups of students passing and failing examinations in the first academic year, 2001–2002, by looking at exam results for the February, June and September diets. Students were categorized as 'passing' if they had met progress regulations and 'failing' if they had failed to amass the 120 credits required for progression to second year. It should be stressed that this is a

very crude measure of success as many of those categorized as failing will progress into the following year carrying additional credit requirements.

Predicting ultimate student success on the basis of this type of examination is notoriously tenuous. Nisbet and Welsh (1976) attempted to identify students at risk of failure on the basis of their first term's examination results at Aberdeen University. Those at risk were identified as those who were in the bottom third of the class in examination results. They determined that 76% of those identified as 'at risk' at that time recovered successfully and that 40% of failing students were missed by this procedure. Thus, they concluded that predicting student non-completion by examining students identified as 'at risk' and those not identified, and indeed other attempts to find a means of improving early warning systems, had proved unproductive. However, despite this finding many institutions rely on such methods to identify 'at risk' students and target them for support initiatives.

The review of examination performance places the three groups of first-year students, Top-Up, GOALS non-Top-Up and non-GOALS, in the four groups examined previously to review the 44 GOALS and 44 non-GOALS comparative schools. These groups divided the schools by averaging their intake to the University over an eight-year period, 1993–2000. The groups were: Group One—schools with averages of less than two pupils per year; Group Two—averages of between three and four pupils per year; Group Three—averages of between five and six pupils per year; Group Four—averages of seven or more pupils per year. The results given below represent the examination results available for the 2001–2002 first-year students for the three groups, Top-Up, GOALS non-Top-Up and non-GOALS. They are shown below in tables 4, 5 and 6.

The results of this review indicate that the Top-Up group, as a whole, are more likely to pass exams than the GOALS non-Top-Up group, 19.40% failing in comparison with 25.80%. Their failure rate is also lower than the non-GOALS group, which is 26.27%. As previously (table 2), the students who come from Group One schools, low participation, are more likely to fail exams than students from the other three groups. However, here again, Top-Up students are being slightly more successful than the GOALS non-Top-Up and the non-GOALS groups.

A closer review of the positioning of the students within the original four groups of schools reveals that the students who undertook the Top-Up Programme are far more likely to have come from very low-participation schools that have already been shown to have considerably higher non-completion rates.

Table 4.   The numbers and performance of the first-year Top-Up students in the first degree examinations of the academic year 2001–2002 by the four groups of schools

Top-Up students 2001–2002	Total no.	Progressing	Failing	Failing (%)
Group One (18 schools)	22	15	7	31.82
Group Two (10 schools)	20	17	3	15.00
Group Three (9 schools)	17	16	1	5.88
Group Four (7 schools)	8	6	2	25.00
Total	67	54	13	19.40

Table 5. The numbers and performance of the first-year GOALS non-Top-Up students in the first degree examinations of the academic year 2001–2002 by the four groups of schools

GOALS non-Top-Up 2001–02	Total no.	Progressing	Failing	Failing (%)
Group One (18 schools)	13	8	5	38.46
Group Two (10 schools)	24	17	7	29.17
Group Three (9 schools)	64	48	16	25.00
Group Four (7 schools)	54	42	12	22.22
Total	155	115	40	25.80

Table 6. The numbers and performance of the first-year non-GOALS students in the first degree examinations of the academic year 2001–2002 by the four groups of schools

Non-GOALS 2001–02	Total no.	Progressing	Failing	Failing (%)
Group One (6 schools)	15	9	6	40.00
Group Two (12 schools)	65	47	18	27.69
Group Three (5 schools)	43	33	10	23.26
Group Four (21 schools)	250	186	64	25.60
Total	373	275	98	26.27

Approximately one-third, 22 of the 67 (32.83%) Top-Up students came from Group One schools, i.e. schools that have very low participation rates in higher education and relatively high non-completion rates. Conversely, only 13 of the 155 (8.39%) GOALS non-Top-Up students came from the same Group One schools. Further, only 15 of the 373 (4.02%) non-GOALS students came from Group One of the 44 non-GOALS schools, which also showed the same pattern of low participation rates and high non-completion rates. These results, taken together with the results of the review of the 44 GOALS and 44 non-GOALS schools, appear to indicate that those who undertook Top-Up have in fact progressed well in first-year University. They are by far the most disadvantaged of the three groups examined but are passing examinations at better rates than the other two groups.

Conclusions

We set out, in this paper, to examine the central question of whether or not it is possible to retain wider access students as well as initially attract them. To this end we aimed to assess the effectiveness of the Top-Up Programme as a preparation course that would promote the skills and attitudes required for successful progression at the University of Glasgow.

Research (Haque 2001, Patrick 2001a) that examines disadvantage and underachievement is now clearly moving towards the notion that lower social class groups are less likely to complete degrees than higher social class groups despite pre-entry qualifications being similar. Lower social class groups are also less likely to achieve top quality degrees. A review of the 44 GOALS schools indicated that not only are many of the GOALS schools extremely disadvantaged by having very low participation rates in higher education but that there are also links between attending these schools and high non-completion rates.

The attempt to select a group of 44 non-GOALS comparative schools revealed that, on the whole, the GOALS schools, in terms of participation rates, were more disadvantaged than the non-GOALS schools, indicating that the GOALS Project is indeed targeting the group of schools most likely to benefit from the initiative. However, a review of the 44 non-GOALS schools indicated that there was also a link between being one of very few from a school at the University and high non-completion. We felt that this indicated that the problem is also associated with feelings of lack of belonging and isolation. The students themselves, 'the lucky survivors' as Bourdieu terms them, understand this and they emphasize the need to have both more contact and support from staff and other students.

Within the context of the theoretical model of non-completion, we tested the notion that the Top-Up Programme (as part of the GOALS Project, currently undertaken by some but not all pupils in GOALS schools) would promote academic and social integration vital for engendering a sense of belonging and commitment and, thus, making the student more likely to complete. The results of the focus groups and questionnaires found that all three groups had found the workload at University harder than they had anticipated but those who had undertaken Top-Up found fewer difficulties with the transition from school. The Top-Up Programme was also found, by that group, to be the most useful source of academic preparation, more so than school and better timed than University. The Top-Up group were also less likely to consider leaving University than the other two groups.

The examination results revealed that the students who undertook Top-Up are passing at a higher rate than the GOALS non-Top-Up group and the non-GOALS group. At the same time, a closer investigation determined that a disproportionate number of the Top-Up group (32.83%) had attended schools that were in the very lowest participation group. In contrast, very few from the other two groups had done so, 8.39% from the GOALS non-Top-Up group and 4.02% from the non-GOALS group. Taking into account the strong links between low participation and non-completion we argue that the Top-Up group are in fact progressing well at the University.

In conclusion, initiatives like the Top-Up Programme that promote academic and social integration, by concentrating on the preparation skills and attitudes that students themselves perceive to be relevant and important to their higher education experiences, can combat educational underachievement and student non-completion. However, such initiatives have to be seen as part of a wider continuing supportive learning environment that academic and support staff, as well as students, contribute to. The results determined here are small scale. The need to continue to monitor and track, both qualitatively and quantitatively, our students cannot be over emphasized and, finally, nor can the need to develop initiatives to counteract the link between socio-economic disadvantage and higher education non-completion.

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