



Connecting
higher education,
skills and work

**Real and Perceived Barriers
Preventing Tradespersons
Progressing into Higher Education
Courses**

Dr Tony Auchterlounie

University of Bolton

A.C.Auchterlounie@bolton.ac.uk

Prof Allan Ashworth

CEBE University of Salford

allan.ashworth1@ntlworld.com



Real and Perceived Barriers Preventing Tradespersons Progressing into Higher Education Courses

1. Introduction

Over the years there has been much of an anecdotal nature about why students who have been successful at level 3 studies in vocational further education either do not proceed or seem reluctant to proceed to study at the higher level as a matter of course. There has been little or nothing written about this specific issue that the authors have detected. Sometimes a student's progression may be restricted by employers because of the nature of the employer's business and the contribution that student's make to this work. The student's themselves may be equally reluctant to study for higher level qualifications since they are often able to earn good wages (sometimes better) in craft occupations and may have no ambition at this stage for a supervisory position. Some employers may also be reluctant to support or even to allow time away from their work to study for a qualification that is not deemed to be necessary at this stage of their careers and that might have the effect of losing them from this valuable role and even eventually from the firm itself. The availability of suitable programmes, locally, may also be a further inhibiting factor against a student's progression in terms of acquiring higher level qualifications. The fact that some programmes offered outside normal working hours exist in only a few number colleges and universities also reduces the opportunities that are available. Universities and colleges recognise the need to ensure that programmes have long term viability and sustainability, since they are expensive to introduce and to validate and then to provide and develop the appropriate staff. Bringing to an end a programme that is no longer required by students can also be difficult to manage and costly to an institution.

This research funded by the Greater Manchester Strategic Alliance (GMSA) and undertaken by the authors from the University of Bolton and University of Salford aims to try to fill or partially fill this gap in current knowledge. The main aim of this research is to establish the characteristic qualifications of HNC students and especially the progression rates of building craft students onto such programmes. This has included an examination and analysis of student cohort data over a three-year period. It also involved interviews with a number of craft students already on HNC programmes in an attempt to better understand the potential barriers to progression as perceived by them. Semi-structured interviews with building craft students who have studied at the HNC level have been carried out and this information is included to help analyse the issues that are involved. A detailed analysis of how and when current HNC students at the University of Bolton gained their prior craft qualifications, the type

of qualification, the level and in the particular craft discipline will provide the much needed information that is required.

It is also hoped that this study will generate a greater awareness amongst these types of students for the opportunities that are available to them in higher education. It explores the longer term benefits that such qualifications are able to provide. The information will also provide institutions with opportunities to consider and develop more appropriate programmes that focus more specifically on the needs identified by potential students. Such programmes might include, for example, a combination of distance learning, work based learning or other more accessible approaches that allow students to attain these higher level qualifications. As will be shown later, some of these ideas were not generally favoured by these types of student.

2. Rationale

One of the main objectives of the GMSA is in promoting life long learning throughout the region. It is attempting to increase not just an awareness of students with FE Level 3 qualifications but to find ways of encouraging more of these types of students to extend their studies to a higher education qualification. The GMSA works with an enviable list of partners who include the further education colleges, universities, sector skills councils, AimHigher, the Learning and Skills Council and regional employers. It therefore needs to understand what potential learners require to encourage them to progress in to higher education. This will help to achieve one of the central government's aim of 50% participation of the adult population in obtaining a higher education qualification. The Leitch Report (2006) has stated that in order for the country to compete in the changing global economy it must educate over 40% of adults to a Level of at least higher education Level 4. This will enable it to compete more effectively with developing economies around the world. In 2005, the Leitch Report stated that participation at this Level was just 29%.

Also it needs to be noted that according to government statistics, the number of 18 year old students will continue to decline into the immediate future. This will impact negatively on all higher education institutions, and particularly on those programmes that have traditionally relied on GCE Advanced Level intake of students. This decline in potential students may have reduced impact on institutions, such as the University of Bolton, who have currently placed a greater reliance on widening participation and in attracting more mature students. Whilst this might appear to place the University of Bolton in a more advantageous position, competing institutions may be forced to consider recruiting more of its students with non-traditional entry qualifications. This will have the effect of institutions marketing their programmes to a

decreasing pool of the same students in order to ensure their survival. As much as we all refute the accusation that universities are placing an unhealthy emphasis on placing 'bums on seats', the UK government directives and policies over the last twenty years have turned universities into businesses and businesses need turnover to survive.

It therefore makes economic sense for the two universities involved in this research to be especially interested in the findings of this report. Anything that can help to identify potential barriers, real and perceived, that prevent students from progressing from FE Level 3 will be of interest to the different institutions who are involved. It is hoped that working with the GMSA and the other alliance partners that these identified barriers can be reduced or eliminated to enable students to progress seamlessly into higher education. This is something that will achieve the objectives of central government, the GMSA and the local universities.

Furthermore, on 7 September 2007 the Secretary of State for Innovation, Universities and Skills instructed HEFCE to withdraw state funding (core funding) paid to higher education institutions to subsidise the fees of those students who had previously studied at the same higher Levels in order to facilitate the implementation of many of the Leitch Review of Skills. The rationale for this was that second higher education qualifications were not as high a priority for public funding, as those students who were for the first time undertaking study at this Level. The Secretary of State indicated that higher education institutions had two options before them. Either they could subsidise the fees themselves or raise fees to cover the shortfall. HEFCE consulted on the implementation of this directive and this consultation concluded on 7 December 2007 and the final decision was ratified at the board meeting 24 January 2008 (HEFCE 2008). The detailed plans for implementation were made public March 2008.

A report from the House of Commons Innovation, Universities, Science and Skills Committee entitled *Withdrawal of funding for equivalent or lower Level qualifications (ELQs)* (House of Commons 2008) concluded that "*the decision to cut funding to ELQ students was insufficiently justified either by persuasive analysis of its likely effectiveness in achieving the desired goals or evidence of the likely wider impact of the policy.*" The committee went on to say that "*the Government should have carried out a full analysis of unmet demand, including the annual 100,000 individuals who apply but do not enter higher education and, their reasons for not starting higher education, before it switched resources away from ELQ students.*"

This government policy change therefore makes this research very relevant and important in that it will identify, probably for the first time the proportion of ELQ students that currently enrol

on the HNC to gain a vocational qualification in order to enhance their career prospects. It will also help to identify just what the effect of this directive is likely to be on the finances of universities and in particular the University of Bolton. The Vice Chancellor is adamant that he will not seek to raise the fees for ELQ students in this next (2008-09) academic year (Holmes, 2008). The House of Commons report cites the example of Birkbeck College, *“in 2007-08 undergraduate students at Birkbeck College, University of London, will pay fees of £1,248 per annum and the College will receive an average of £2,853 per student through HEFCE teaching funding. If fees for ELQ students were to increase to cover the loss of this funding for ELQ students, Birkbeck calculate that they would have to rise to £4,101 per annum, increasing the cost of a four year degree from £4,992 to £16,404.”* (House of Commons, 2008)

One other factor that has some relevance to the study is the nature of the construction industry. The industry has been particularly stable in terms of workload over the past ten years and has afforded those involved at every Level relatively secure well-paid employment. In times like this the industry is attractive to all potential recruits. Building craft courses have, in a majority of institutions, been over subscribed and this may increase the immediate pool of potential students to programmes such as the HNC in building. At the higher Level, the insufficient numbers of students that have been entering the construction industry in recent years has raised expectations and salaries and this has encouraged students from other subject areas to seek employment in the construction industry. The analysis of the data shows that a proportion of the HNC students studying at the University of Bolton have already acquired qualifications at this Level albeit in other subject specialisms. However, the recruitment of students to subjects, such as construction, is very susceptible to suitable vacancies and employment opportunities. In the recession at the beginning of the 1990s, for example, several university departments had to close, and were unlikely ever to open again, because student applications to programmes fell below a viable Level. Largely as a consequence of this, once the construction industry's turnover increased, there was a shortage of personnel at virtually every Level.

There is therefore the real danger that in a recession, not only will the numbers of students studying at craft Level diminish, but also that the acquisition of a higher Level qualification will be seen to offer no real benefits in terms of employment. The old adage is that in times of prosperity students are too busy at work to study, whilst in times of a recession there is no employer funding available to allow this to take place remains true. These are, of course, both short sighted views. In both times of prosperity and famine, students should be encouraged to enhance their qualifications as being the best strategy for their long term careers.

This is the background to the research being undertaken. Universities need to secure their student cohort in order to maintain their financial position, the GMSA need to achieve their objectives by helping the numbers of FE Level 3 qualified students to proceed to higher education programmes and specifically the HNC.

3. The Higher National Certificate

The Higher National Certificate (HNC) is a well known and widely accepted and respected designated higher education qualification within the construction industry in the UK. In England, Wales and Northern Ireland, the HNC is a BTEC qualification awarded by Edexcel and in Scotland the HNC is awarded by the Scottish Qualification Authority. The attainment Level is roughly equivalent to first year of university degree programme and thus a Certificate of Higher Education being mainly higher education Level 4 (HE4). It is below that of a Higher National Diploma (HND) which normally contains the same HE4 Level and some HE5 and it is two Levels below that of a completed honours degree (HE6). Studied part-time, the qualification normally takes two years or exceptionally one year on a full-time basis. Normally HNCs and HNDs have common modules, and it is often possible to complete an HND after successfully completing the HNC. In practice, very few HNC students do this preferring instead to study for a part-time degree or for professional qualifications.

Whilst the HND is recognised as a higher academic qualification to the HNC, employers have traditionally often preferred the latter, since it includes evidence of work experience in the construction industry. This ensures a large element of *street credibility* practices that cannot easily be obtained in a university or college environment, even in those modules that are aimed at simulating such experiences. Students do not top-up their HNC qualification to a HND because they feel that the HNC is a more desired qualification by the industry's employers.

The HNC programmes offers high rates of achievement and retention due to the fact that it is part-time and combines with the work place and focuses emphasises on the application of theory into practice. The actual Levels of retention and achievement are different for the different types of HNC students but this knowledge is beyond the scope of this report. The HNC programme is designed to equip students with the knowledge, understanding and skills required for success in current and future employment or for eventual progression to an undergraduate degree, primarily in the subject area of construction (building and surveying). The qualifications have been developed to meet the particular needs of the higher technician who might be employed in construction firms, private practice or in a local government department. The HNC has always placed an important emphasis on the development of

knowledge and skills for the workplace as well personal and interpersonal skills. This is useful in providing student profiles to potential employers. Some evidence suggests that students who do especially well on their HNC programme successfully continue their studies at undergraduate degree Level. A majority of students who study on an HNC do so with a prior qualification in the same subject area as the HNC. Typically many will have previously have completed an ONC/D, or their equivalent, in a college of further education.

4. History of the HNC Programmes

Ordinary National Certificates (ONCs) and Higher National Certificates (HNCs) were introduced in the 1920s. The Institution of Mechanical Engineers, for example, introduced them in 1921. These courses would subsequently be managed by the Joint Committee and then later by the Technician Education Council (TEC). In 1973, the Technician Education Council (TEC) was created to unify technical education, eventually taking over the validation of courses in further and higher education. These courses led to Ordinary National Diplomas (ONDs) and Higher National Certificates and Diplomas (HNC/Ds), which were previously the responsibility of professional bodies. In 1974, the Business Education Council (BEC) was established. This had a remit to rationalise and improve the relevance of sub-degree vocational education in further education and higher education colleges and in the Polytechnics. BEC merged with TEC in 1984 to form the Business and Technology Education Council (BTEC). This then merged with London Examinations in 1996 to form Edexcel.

Edexcel was formed in 1996 by the merger of the Business & Technology Education Council (BTEC), the country's leading provider of vocational qualifications, and the University of London Examinations and Assessment Council (ULEAC), one of the major exam boards for GCSEs and A Levels. The name 'Edexcel' was originally derived from *educational excellence*. The Edexcel Foundation, which ran the organisation, was a charity, managed by board of trustees. In June 2003 the Edexcel Foundation entered into a partnership arrangement with Pearson PLC, the biggest educational services company in the world, to set up a new company called London Qualifications Ltd, which traded as Edexcel. The new company was 75% owned by Pearson and 25% by the Edexcel Foundation. All of the business activities and staff transferred to London Qualifications, which became a subsidiary of Pearson. The latest chapter in the story began in November 2004, when the Edexcel Foundation changed its name to Edge, and London Qualifications Ltd became Edexcel Ltd.

A Report (HMI, 1990) stated that the part-time HNC in building studies was then the most popular course in construction in the non-university sector. This accounted for 13% of all construction students in the former polytechnics and colleges that were funded by the

Polytechnic and Colleges Funding Council (PCFC). The total numbers of HNC students in PCFC and LEA institutions was 6,000. Apart from a severe dip student recruitment in the early 1990s, that affected all construction provision, HNC programmes have continued to be popular programmes amongst students and employers.

Many HNC programmes are both devised and managed by Edexcel/BTEC, and delivered in colleges of further education. Universities and a few of the larger colleges of further education and higher education colleges are licensed by Edexcel and have a large amount of autonomy in designing both the curriculum and methods of assessment. In the case of the University of Bolton, the HNC in Building Studies is university devised and managed. The programme is normally a two year part-time course, either day release or evening only. Successful students will achieve 160 CATS points, 100 at Level HE4 and 60 at Level HE5, which is a higher Level than the generic HNC in Construction devised and managed by Edexcel. This university devised HNC in Building Studies allows entry onto the School of the Built Environment and Engineering's Construction and Surveying Honours Degree programmes at year three. The part-time degree is a five year part-time programme. The generic Edexcel HNC in Construction would normally allow a student to enter at this Level providing the student had studied the equivalent core modules to the university's own HNC. Where this was the case then some additional modules are required to ensure that the academic profile of a student matched those of the entry criteria.

Whilst foundation degrees are gaining in popularity in the construction industry and amongst employers, there is still a overwhelming preference and demand for the HNC qualification by both students and employers.

5. Methodology

As previously stated the main aim of this research is to establish the characteristic qualifications of HNC students and help to understand the progression routes and particularly rates of building craft students progressing onto HNC programmes. This has involved an examination and analysis of student cohort data over a three-year period. It has also required interviews with a number of craft students already on HNC programmes in an attempt to better understand the potential barriers to their progression.

The process has involved identifying students from the admissions database and then manually retrieving the application forms from the archive of all HNC Building Studies students over the last three cohorts. The qualifications prior to entry to the HNC programme are noted and an analysis of this made. A database has been established with fields chosen to allow the

raw data from the application forms to be interrogated in a manner that will allow the type of information relevant to this project to be produced. The characteristics of these students are noted along with any trends or patterns, including their place of prior study, ages, gender, etc.

6. Data Collection

Lists of students on the HNC in Building Studies for the last three academic years have been compiled from the university database. The student application forms for these cohorts of HNC students were extracted from the archive and photocopied. These completed forms were then inspected and the relevant information extracted and inputted into the electronic database. The inputting of data into the database is dependent on the quality of information given on the relevant application forms, many students with little or no formal qualifications do appear to be reluctant at times to provide the necessary in-depth information.

Once all the data had been entered into the database the individual queries used to interrogate the database were devised in order to identify those who have previously completed some form of Level 3 award. The database illustrates when this was completed, whether or not they fully completed and in what subject area, etc. This information provides an analysis of how the cohort has progressed through the further education and higher education systems. It also indicates the Level of completions and non-completions at Level 3 of the cohort, and the realistic length of time that it has taken for these students to progress to Level 4. Also indicated is any achievement of GCSE or GCE Advanced Levels together with the subjects a student passed. This provides an insight into the school background and success of HNC students. Higher Level qualifications have also been identified along with the subject where these are available. The analysis also identifies the students without any formal Level 3 awards and their measure their performance.

A number of students were also interviewed about their own progression from apprenticeships and craft qualifications. These interviews took the form of semi-structured interviews to enable the interviewer to explore the individual circumstances of each interviewee, their experiences at school; their experiences at Level 3 qualifications and their subsequent journey from Level 3 to Level 4 studies. The Level of support that they have had received from their employers in terms of time and funding and whether they thought that more flexible delivery would make Level 4 study more attractive and viable. The problems and barriers that these students have experienced in progressing from Level 3 to 4 and what type of advice or assistance might have been provided to allow their progression to be easier and more effective to others in making this journey. Semi-structured interviews are an accepted method of collecting rich qualitative data, and this is the type of data is required and that will help to formulate ways and

means of progression to higher education. This is the type of information that will help colleges and universities to design higher education programmes that will be accessible to potential students. It will also identify the kind of support they will require from their tutors to complete these programmes and what employers can do in assisting these students.

7. The Specific Outcomes

A complete analysis is made of the entry qualifications to the University of Bolton HNC building programme over a three year period. Of particular interest is the identification and analysis of those students who originally entered the programme with building craft qualifications. These will be compared with students who have completed a FE Level 3 award, those who joined the course with GCE A-Levels or similar Level qualifications and those who have been able to study at this Level without a Level 3 award. For many of these latter students, their acceptance on the HNC was often on the basis of having acquired the appropriate level of experience in the construction industry. The analysis also identifies and analyses the number of students who have progressed immediately after gaining their building craft qualifications and those who may have postponed this and progressed at a later date. It also considers any trends over the three year period.

The analysis also identifies and analyses the number of ELQ students that have traditionally used the HNC qualification to enable them to transfer from a general academic higher education qualification to a specific vocational qualification. This enables the university to make strategic decisions on funding and fees.

The barriers, both real and perceived by students that enable them to progress from FE Level 3 to higher education qualifications, such as the HNC, are identified. This enables funding bodies and institutions to focus their efforts more specifically to enable the students that encounter these barriers to be assisted in ways which help to overcome these barriers. This might be achieved through, for example, innovative ways in the delivery of these types of programmes. Innovative approaches may include flexible forms of delivery, distance learning and or any combination of these methods that will help students to successfully achieve a higher education qualification and encourage them to become life long learners.

The research yields useful data that can assist in helping those who have a FE Level 3 qualification to progress in to higher education and to enable GMSA and their partners to identify how progression from FE Level 3 to a higher education qualification can be best facilitated. It focuses on helping to achieve the Governments desire to see widening participation and progression at this Level and encouraging life long learning.

8. Survey of Building Craft students on HNC Programmes

8.1 Historical perspectives

As noted earlier there has been a long history of students studying for HNC qualifications in the UK. It was the only programme at higher education level that was funded by both the further education and higher education funding councils when the funding councils came into existence in the late 1980s.

The HNC programme was devised typically as a progression qualification for students who had studied an OND/C in a further education college. Traditionally for a large number of students who had acquired an HNC they recognised this as the pinnacle of their learning and having acquired the HNC ceased any further study. This was prior to the concept of life long learning. Whilst it was designed with the OND/C student in mind, it also attracted students with other types of qualification, most notably students with advanced craft qualifications who had also completed a bridging course to the HNC. The HNC therefore assumed a prior knowledge of the industry and a prior understanding of techniques and practices. It was not felt to be a suitable qualification for those without any prior construction industry qualifications.

Students with GCE A Level qualifications did not always easily fit on to an HNC since they did not have this acquired knowledge. They had other attributes such as more advanced study skills and this enabled them to progress assuming that they were in suitable employment, since the HNC was a part-time qualification. Historically the HNC attracted very few female or ethnic minority students. This to a large extent reflected the construction industry from which these students were recruited to the HNC. Whilst the situation has improved, it still can only reflect the constituency of the construction industry.

Many of the students worked for building contractors rather than in private practices of architects and surveyors. On construction sites they might have site management or quantity surveying roles. Some would inevitably have risen from the ranks of the different trades and the HNC was seen as an opportunity for career progression for students who choose this direction. A number of these students would also be employed in local authority offices in areas such as building inspection and control.

A number of students recognised the acquisition of the HNC as their terminal qualification. Some would later enhance this through other qualifications. A small number, (circa. 30%) would use the HNC qualification to progress towards professional body membership,

especially of the CIOB. This recognised in part that a large number of these students who worked for building contractors. The RICS did not at the time recognise the HNC for entry to membership and much later only degrees anyway could be used to enter this professional body. However, at this time the HNC could be used as an entry and exemption qualification especially for students on part-time programmes of study.

Mature students, those over the age of 30, would make up as much as 20% of the cohort of some HNC programmes. Some of these had recognised that further qualifications and the knowledge, skills and understanding that this gave to them were becoming essential for their own career progression and enhancement.

Widening participation and the emphasis on the need for degree qualifications has encouraged more students to start by first acquiring an HNC qualification. Many institutions now recognise the HNC as the exemption for the first one or two years of a part-time degree programme and this has helped to enhance and make the HNC a more attractive qualification.

The anticipated decline in student numbers by 2012 will make students from such programmes even more attractive to those who offer and manage degree programmes, especially those programmes that are in the part-time mode.

8.2 Analysis of the student data

The University of Bolton has had a long and distinguished history in the provision of HNC programmes in Building Studies. In the early 1970s it was only one of two institutions in the Greater Manchester region under the then Department of Education and Science rules to be allowed to offer an HNC qualification in Building Studies. This approval required the Regional Advisory Committee (RAC) and HMI support to avoid unnecessary duplication in a region. Stockport College, the then Liverpool and Preston polytechnics were the only other institutions authorised at the time to offer this qualification in the whole of the North West region.

Data covering the three years 2004-2007 has been extracted from the records of HNC students at the University of Bolton. This covers 232 students. The following tables illustrate the characteristics of these students.

Table 1 illustrates the overall analysis for these students. This indicates that the largest proportion of students (75) joining the HNC had GCE Advanced Level qualifications (32.3%). When added together, students with the different NVQ qualifications (43.7%) exceeded this percentage, but this disguises the fact the many of these students had an NVQ qualification in

a non-cognate subject area (22.2%). However, almost a quarter of the students had obtained a NVQ level 2 or 3 (21.5%) in one of the construction craft areas. This is an interesting statistic indicating that a considerable proportion of students on the HNC had entered with building craft backgrounds. It is difficult to estimate just how many construction craft students were completing their NVQ qualifications over the period of the study and were also eligible to study an HNC at the University of Bolton. Statistics might indicate as many as 2,000 potential students, over the three years of the study, who could have been eligible to study at the University of Bolton. Whilst the numbers of these students actually choosing to study at HNC Level are not insignificant in the total (59 students), they represent only a small fraction of those who might have chosen to study at this level. However, it needs to be recognised that not all craft students will want to study at this level, even throughout their lifetime. The HNC is higher level qualification and will not be appropriate for all of these students. For a great majority of these students their aims, aspirations and abilities suggest that the NVQ level 3 qualification is their optimum qualification.

	Number	Percentages
GCE Advanced Levels	75	32.3
Vocational	33	14.2
First degrees	30	12.9
NVQ Level 2 only	36	15.5
NVQ2 total (non-cognate)	42	18.1
NVQ2 total Building	33	14.2
NVQ3	49	21.0
NVQ3 (non-cognate)	18	7.6
NVQ3 Building	31	13.4
No formal qualifications	22	9.5

Table 1 Entry Qualifications to HNC Building

From this sample of students, less than 10% (9.5%) of all of the students had no formal entry qualifications prior to starting the HNC programme. A fifth (19%) of these students were female. This was a larger percentage than anticipated. The dates of birth of these students ranged between 1956 and 1984, although the majority had been born since 1970 (62%) and 28% were born in the 1980s. It should be noted that their success rates on the programme were no different to the other students. It is to be hoped that the numbers of students that fit in this category will diminish considerably over time as much more emphasis is placed on the workforce in general acquiring some form of qualification in line with government expectations. In the context of many of these students it is likely that some would have GCE or GCSE certificates but nothing that would have given them eligibility to study HNC level. Some students would have come via a relevant Access route.

Table 2 shows the students with advanced level qualifications, both academic and vocational. The GCE Advanced Level subjects studied by these students reflect a wide subject interest from the arts and the sciences. There is no particular pattern. This illustrates that the HNC programme encourages students from diverse educational backgrounds, not only to study at this level but also to succeed with these qualifications and in their respective careers. All of the HNC students are in relevant employment, although this is not a mandatory requirement of the programme at the University of Bolton.

A number of these students with vocational qualifications joined the HNC after studying in other subject disciplines. This partially reflects the growing demand for both personnel and opportunities in the construction sector. Whilst this demand has now waned slightly, due to the recession in the in country generally, in the construction industry and especially in house building, opportunities still exists in number of areas for employment and advancement.

The analysis reflects the small percentage of female students, not just on the HNC but also on construction programmes in general. From this analysis whichever route to the HNC is selected, the proportion of female students is noticeably lower than male students. This is in line with national trends and has not changed substantially over the past few years. At the present time, working on construction sites or with contracting firms is not seen as a priority for a majority of female students.

Whilst a majority of these students are in the expected age range of early 20 year olds, the data also indicates that some of the students have chosen to study an HNC some years after formally terminating their initial non-compulsory education courses.

	Number	Percentage
GCE Advanced Levels	75	28%
Vocational	33	9%
Male	87	81%
Age range		1960-1989

Table 2 Students with Advanced Level Qualifications (GCE A Level/AVCE)

Table 3 shows the data for students who have already acquired or almost completed a first degree in another subject area. The number of students choosing to study at HNC level, having already acquired a first degree in a non-cognate subject area, reflects the real

opportunities that are available in the construction industry. Whilst there is no common subject area, a number of students had already obtained first degrees in, for example, business studies, accounting or law. A small number of these students (3) had completed only the first year of their non-cognate programmes. The vast majority had completed their degree programmes between 2001 and 2005 and had resorted to studying for an HNC in construction due largely to the range and better opportunities that were then available to them. All of these students are in relevant employment and are encouraged and supported by employers to acquire a discipline specific qualification.

	Number	Percentage
Number of Students	30	13%
Male	21	70%
Age range		1962-1987

Table 3 Students having studied for First degree qualifications in non-cognate subject areas

Table 4 shows the data for those students with NVQ Level 2. Almost one third, 75 students (32%) of these students entered the HNC programme with a NVQ Level 2 and 39 students (17%) having acquired a NVQ Level 3. The 75 students represented qualification from variety of different subject areas. Almost 70% (67%) of the students were male which represented a marginally better gender balance than the other classifications. Only 13 students (6%) of the total number of students had a building craft background. These were predominantly in bricklaying or carpentry and joinery, which would be expected from current knowledge, expectations and craft entry qualifications levels. However the actual percentage of students with craft qualifications is less than might normally have been expected. This can be partially accounted for, at the present time, by the high level of wages paid to construction trades people at the beginning of the twenty-first century. There is reluctance for them to study for further qualifications that might effectively, at least in the short term, reduce their earning capability.

	Number	Percentage
Number of students attaining NVQ Level 2	75	32%
Number of students (Level 2 only)	36	15%
Male	67	89%
Building Craft	13	17%
Female	1	1%
Age Range		1958-1988

Table 4 Students with NVQ2 Qualifications

Table 5 shows the number of students with an NVQ level 3 qualifications. A much larger proportion of students who join the HNC programme with NVQ level 3 qualifications have a building craft background when compared with those from NVQ level 2. In terms of the actual numbers of students they are comparable (NVQ2 13 students; NVQ3 31 students). Bricklaying (8) and carpentry and joinery (12) students are the predominant building craft trades. A number also have engineering services qualifications at NVQ level 3 (plumbing (4), electrical (3). It needs to be understood that for these latter disciplines, NVQ level 3 is the acceptable qualification that is usually required by trade and industry. However, for the building trades themselves NVQ level 2 remains the normal qualification that is expected on construction sites.

The number of building craft students with NVQ level 2 or NVQ level 3 is 44, which represents 19% of the total HNC students in the sample over the three years of this study. This is in line with what might be expected.

	Number	Percentage
Number of students	49	21%
Male	44	90%
Building craft	31	63%
Female	1	2%
Age Range		1963-1986

Table 5 Students with NVQ3 Qualifications

Table 6 indicates that over the past three years the intake to the HNC programme at the University of Bolton has increased by 86% amongst entrants other than those with an ONC equivalent. The largest increase has been amongst the NVQ level 2 students where the percentages increased by 280%. This is the category that largely represents students with construction craft qualifications. This is an encouraging statistic especially at a time when the construction industry was at its peak of activity, when labour was in short supply and the opportunities to earn high wages was at its best.

The increasing trend over the three years, generally, reflected the job opportunities that were available in the construction industry. The students in all the identified entry groups have

increased in number in all of the classifications other than amongst students with no formal academic qualifications. The number of students reflecting a change in their career towards the construction sector has increased as evidenced by the increase in student numbers of those who already hold an undergraduate degree. The reason for many of these students choosing to study an HNC reflects their occupations and the support offered by their employers to help them to acquire an appropriate technical academic qualification.

Entry Year	2005	2006	2007	% change 05-07
	No	No	No	
Undergraduate degree 160%	6	8	10	
GCE Advanced level	12	21	30	250%
NVQ2 Construction	5	8	14	280%
NVQ3 Construction	9	9	15	160%
Other HNC/D	0	1	5	
No formal qualifications	4	8	3	

Table 6 Trends in entry qualifications over last three years intake of students with qualifications other than ONC equivalents

8.3 Interviews with students

Interviews were held with six of the building craft students with an aim of attempting to understand their motivation for studying on an HNC programme. It would also to discover why some of their fellow students had chosen not to extend their craft qualifications up to this level. All of these students were male which were representative of the cohort. The questionnaire used is shown in Appendix A. The questionnaire was used as the basis for the interviews with the students which were carried out on an individual basis.

8.3.1 Craft disciplines?

The common trade disciplines of students in general who study at this level are joiners and bricklayers. These are often the craft disciplines of those who become foreman and thus work in a supervisory capacity on construction sites. The usual explanation given for this is that these trades are on site for a longer period of time than some of the other craft disciplines and thus have a greater understanding of the construction processes and of other trade practices and procedures. The initial selection of students by the training board and colleges also expect that these students will have already shown a greater capacity for study by the

standards achieved in their prior qualifications. The students in this survey included five joiners and one bricklayer.

8.3.2 Age profiles?

Whilst some students will study for an HNC immediately after acquiring their craft qualifications this is unusual since their sponsoring employers are more interested in them demonstrating their newly acquired craft skills. This is necessary anyway prior to possible promotion to a supervisory position. Otherwise there is no standard age at which these students choose to study on a HNC. In this sample the ages of these students was higher than might be expected for the population generally of craft students studying at HNC Level. Three of the students were in their 40s (42, 45, 46) and three in their 30s (33, 36, 38).

8.3.3 Period of time after completing craft qualifications?

All of these students had completed their craft qualifications a long time prior to embarking on the HNC. It was not always clear whether they had undertaken any other formal studies in between time. Four of the students had completed their craft qualifications in the 1980s and the others at the beginning of the 1990s. In some cases the restriction on these students is in gaining day-release from the workplace and the payment of their fees by an employer for the HNC programme. One student commented that he would have liked to have gone straight on to an HNC programme but the opportunity did not arise. Other students commented that since they had become foremen they felt that they needed to upskill their qualifications and knowledge. In another case it was due to changing employment.

8.3.4 Main incentive for studying at HNC Level?

In a majority of cases these students stated that one of the main reasons was to, *get off the tools*, even if this meant a pay cut. The building craft occupations require a considerable amount of fitness and energy and many students comment that after the age of 40 years these attributes begin to dwindle. Opportunities for promotion and advancement were also given as key reasons. For others, it became a personal challenge and some felt that the HNC was really the minimum qualification necessary to enable them to carry out supervisory work on construction sites effectively.

8.3.5 Employers' views of the HNC?

Employers recognise the HNC as being a very worthy qualification and one that enables their employees to carry out work with greater confidence and assurance. The subjects that are studied on the HNC are relevant to practice and add value to an employees overall performance. Subjects such as an understanding of the CDM Regulations and building law

were considered to be especially important in the workplace. Many employers recognise the importance of employing staff with higher qualifications, since this adds benefits when dealing with clients and working with the professions and enhances the firm's profile. Employers also see the HNC as a good starting point for ongoing future training.

8.3.6 Why do many craft students not study at this level?

There are a great many reasons for of why craft students do not choose to study at this Level. These include:

- More money can be earned working on the tools.
- Costs of study, where an employer may not be supportive.
- Young craft students sometimes have no aspirations to move into higher Level jobs.
- Many have families with children and time does not permit study.
- Loosing good craftsmen is a disincentive to employers.
- Lack of progression opportunities.
- Some think that they do not have the capabilities to study at this Level.
- Do not want to take part in any further academic studies, especially as some had very poor experiences of school.
- Have only short term priorities.
- They don't believe that it will make any difference to their employment prospects.
- Too busy doing other things.
- Many are content to work as craftsmen since they enjoy this work.
- Lack of courses especially in the evenings.
- No incentive for study.
- Job security in the construction industry.
- Long hours of work may study and completing coursework difficult.

In essence it is often about a work-life balance and a preference for working with hand skills which offer them a high level of personal satisfaction for them. None of these students suggested that universities or colleges did not think that craft students lacked the capability for study at this level. None had found being accepted on an HNC programme difficult.

8.3.7 Do craft students studying for an HNC move off the tools?

These students stated that the majority of craft students who embark on an HNC have already moved off the tools or will do so imminently. For those students who have already have done so, the acquisition of an HNC may be requirement for their onward progression.

8.3.8 Has the HNC an appropriate curriculum?

It expands the students' knowledge and skills and thus builds their confidence. It provides opportunity for study at (first year) undergraduate degree level. Some of the craft students have then progressed successfully at this level. As with many courses, at the end what might have been considered at the start all fits into place. The HNC also helps to broaden a students' horizon and provides an excellent insight of how the construction operates. The HNC provides students with technical knowledge that is necessary for students moving into supervisory roles. It also provides students with improvements in their generic skills of reading, writing, numeracy and ICT.

8.3.9 Do craft students complete their HNC?

As with all types of students some will pass the course easily and others decide for a variety of reasons (see above) not to complete the qualification or fail to pass the modules.

For those students who do not complete the course they usually withdraw during the first few weeks believing that the commitment that is required is too great for them. A majority of craft students embarking on an HNC acquire the qualification within the stated time frame.

8.3.10 Does the HNC encourage life long learning?

Four of the students stated that they enjoyed the HNC sufficiently well to encourage them to study beyond this level. In some cases this was due to a feeling of success at a level that they had considered to be challenging at the start of the programme. Two students were not sure about further formal study, but did recognise the importance and necessity of updating skills and technical knowledge.

8.3.11 Do students intend to progress further?

The students had very different answers to this question and for a variety of different reasons. One student had already completed a building surveying and property undergraduate degree. Another was not considering studying for a degree but was currently considering a health and safety course and possibly moving into this area of work. Another had, since completing the HNC, started up his own business and further study was at the present time was not possible. Other students had enjoyed the HNC and this had opened up interests in further study such as the acquisition of professional qualifications. Many students have similar stories to tell about the benefits to them personally of studying at this level.

9. Conclusions

This report sets out to attempt to address some fairly difficult questions; the prime one being to identify the barriers both real and perceived that currently prevents crafts people from progressing to higher education. A secondary aim was to establish the profile of students on an HNC, in this study at the University of Bolton and to note how this has changed over a period of time, the last three years. And thirdly what effect will the ELQ regulations have on students who want to study at this level.

In terms of the real or perceived barriers it would appear from the findings that the main barriers are self-imposed rather than perceived ones. The small sample analysed indicate that most crafts people often have a low level of self esteem and ambition and these are important factors that prevents them from studying in higher education. They either think that they cannot do it or are too busy earning good money to bring up the family to risk taking a drop in earnings and moving into management. There is a real barrier in that there is reluctance on the part of some employers to invest in their employees and make the opportunities available to crafts people to study at this level and then move into a management position. The smaller firms have a real difficulty, since if an employee is attending a course or further training their construction work may come to a halt. One interviewee remarked that employers really do not want to lose good crafts people. It is difficult in the current economic climate to recruit and retain good crafts people due to the itinerant nature of the construction industry, in itself another de-motivator to employers.

In terms of the profile and the effect of the ELQ regulations on HNCs the findings are that the profile has remained fairly constant over the last three years. The number of students, with no formal qualifications, has declined to 3 students from 8 in 2006. At the same time the number of these HNC students with undergraduate degrees has risen from 6 in 2005, to 8 in 2006 and 10 in 2007. The number with existing HNC qualifications is very small at just one student per year. There appears to be a healthy increase in the number of NVQ level 3 from 9 in 2005 to 16 in 2007. If the GMSA is able to further promote HNC programmes with employers then the prognosis is even better for crafts people continuing their studies in higher education. There are concerns for ELQ students. The School of the Built Environment and Engineering will loose out on core funding on approx 10 students if the information and proposals remain the same. Of course this lack of funding is likely to discourage some students from even thinking about studying for an HNC in construction.

10. Action Points

The following are some of the action points derived from this study:

- The opportunity to progress is not sufficiently promoted to crafts people by either employers or colleges. Taster courses that could demonstrate the level of study and time commitment that is required would be helpful. The taster courses might be directed initially at employers so that they can understand the benefits to be expected from better qualified people.
- Sponsorship by employers, whilst recognising that many do allow day release from employment and already pay the fees involved, sometimes on the basis of successful completion.
- Examples of what students might expect can be put on line to provide them with a clearer understanding of what is involved in terms of time commitment and level of achievement.
- Better publicising the opportunities that are available.
- Showcasing examples of successful students in terms of their achievement and employment progression.
- More on the job training, perhaps incorporating a NVQ approach which is often well understood by these students. A combination of classroom and workplace training is perhaps a better incentive using the foundation degree model. The NVQ approach would require suitable work experience to be provided, which is not always possible in the smaller firms and organisations.
- Financial incentives for small employers to allow their better crafts people to study at this level. Fees have never been the real issue for large employers and a majority are supportive of the right candidates.
- Flexibility of courses in terms of time. However, distance learning courses might not be appropriate for these types of students. These were not favoured by the students in the interviews. Even with virtual learning networks these students would require some formal tuition and the camaraderie and support from other students could be easily missed.
- The incentives for further study amongst many of these students are limited due to their earning capabilities. This is partially offset by the often poor working conditions on site and the lack of job security, but the wages paid often override these considerations.
- Construction craft students sometimes doubt their own ability and this affects their confidence and their willingness for further study. This needs to be tackled.
- The motivation to progress remains a personal issue and is dependent on home and work support as well as a personal belief in an individual's ability.

- There are some problems with modern apprenticeships and the quality of crafts people being produced. This needs some further consideration to ensure that this progression opportunity remains a viable opportunity.

11. Future research

This study has examined the characteristics and backgrounds of students joining HNC programmes in building. It has focussed particularly on students with building craft qualifications and why so many of these students do not progress further beyond their craft qualification. Further research that assesses how well such students progress both within their HNC and beyond in respect of undergraduate degrees and professional body membership should also be considered.

12. Acknowledgements

The authors wish to acknowledge the financial support that has been provided by the GMSA to allow this study to be carried out.

References

HEFCE, *Funding for universities and colleges in 2008-09*, 25 January 2008, http://www.jismail.ac.uk/cgi-bin/webadmin?A2_ind0801&L=admin-hefce&T=0&F=&S=&P=488

HMI (1990) *Higher Education in the Polytechnics and Colleges: Construction*. HMSO.

House of Commons Innovation, Universities, Science and Skills Committee, (2008), *Withdrawal of funding for equivalent or lower Level qualifications (ELQs)*, The Stationary Office, London.

Holmes, G (2008), *“Everyone will still get a chance with us, V-C says.”* M. Newman in Times Higher Education. 15/05/08, London.

Leitch, S, (2006), *Prosperity for all in the global economy – world class skills*, The Stationary Office, London.

Appendix A Student Questionnaire



School of the Built Environment
& Engineering

**Research into student entry qualifications of HNC students at the University of Bolton
and especially those with building craft qualifications.**

**Dr Tony Auchterlounie (University of Bolton) and
Prof Allan Ashworth (University of Salford)**

Student Questionnaire

1. Which craft discipline are you from?
2. What age are you?
3. How long after finishing your craft qualification did you decide to study for an HNC?
4. What is the main incentive for studying an HNC?
5. Do some employers see the HNC as a good qualification for supervisors?
6. Why do more craft students not study for an HNC?
7. Do all craft students who study for an HNC move off the tools?
8. Is the HNC a good course in terms of the curriculum studied, assessment, etc?
9. Do craft students who start usually complete the HNC?
10. Has the HNC gained your interest for life long learning?
11. Do you intend to progress further?
12. How could the GMSA help to increase the number of trades' persons moving into HE and level 4 courses?



Connecting
higher education,
skills and work

Greater Manchester Strategic Alliance

1st Floor Tresco House
149-153 Oxford Road
Manchester
M1 7EE
0161 921 8040
www.gmsa.ac.uk