Learning through work placements and beyond Brenda Little and Lee Harvey July 2006



LEARNING THROUGH WORK PLACEMENTS AND BEYOND

by Brenda Little and Lee Harvey

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A report for HECSU and the Higher Education Academy's Work Placements Organisation Forum

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CHAPTER 1: INTRODUCTION

Work-based learning at higher education level has long been a feature of UK higher education: for example, in the 1950s, the National Council for Technological Awards advocated that undergraduate programmes in engineering and technology should incorporate planned periods of industrial placement. Since that time, undergraduate programmes incorporating such work-based placements have been introduced across a wide range of subject areas. In some programmes the placement is a year-long activity 'sandwich' between significant periods of on-campus learning and the sandwich placement may be optional. In other programmes, often those seen as meeting both academic and professional development objectives, shorter 'blocks' of placements are interspersed throughout the undergraduate programme (and the blocks are compulsory). More recently, there has also been a growth in undergraduate programmes that allow students to opt to take a 'work-based' unit, which involves a short, 6–10 week, placement as part of their overall programme.

There have been various studies since the late 1980s looking at the impact of placement experience on students. Most of these focus on how it makes students ready for, and more effective in, the workplace once graduated.

Little (2000, p. 122) noted that most curriculum frameworks against which learning from work experience are mapped identified a range of skills, including personal and social skills, communication, problem solving, creativity and organisational skills. However:

It is of course questionable to what extent any one work placement might provide opportunities for a student to develop all of the above skills....

Nevertheless, the explicit identification of certain skills seems to serve as a useful prompt to students and employers to address these aspects in discussions about suitable tasks and activities for a work placement.

This sums up much of the approach and available literature, that is, it adopts a skill development approach, oriented to the workplace and tends to reduce development to a set of skill enhancement rather than be seen as a holistic experience (which, as we will see below, tends to be the experience of the sample students).

Recent studies of the relationship between work placements, in sandwich courses, and subsequent short-term employment outcomes tend to find sandwich students are advantaged in the labour market; at least in the early part of their careers (Bowes and Harvey, 1999; Mason *et al.*, 2003). Employers tend to have positive views about graduates who have undertaken periods of work experience during their undergraduate programme. They are perceived as having acquired many of the skills essential for success at work, including communication and interpersonal skills, in addition to acquiring attributes such as team-working, and an awareness of workplace culture. In *Graduates Work* (Harvey *et al.* 1997), for example, employers interviewed were very positive about placements but placed the emphasis, not surprisingly, on the employability:

In terms of the benefits of placements, their order would be (1) money, (2) a real insight into how a lot of the theory they learn is actually applied, (3) access to a

lot of equipment that we are privileged to have and a lot of universities don't have; we have probably more modern, faster, better equipment than a lot of universities are able to afford, and (4) the business of working in teams and seeing what it is like to actually contribute to a group scientific development, rather than being asked to work independently on their own, so they become social.

(Human resources manager, large pharmaceutical manufacturers; quoted in Harvey *et al.*, 1997)

However, although recently-reported studies of work placements continue to cite personal skills development as an important feature of placement learning, less is reported about the extent to which there is a positive transfer of learning from the placement to subsequent stages of an individual's learning through the taught programme of studies. In a couple of cases, recent graduates, in the *Graduates Work* study, did emphasise the role of workplace learning in developing subject understanding and becoming independent learners:

I mean, it's all well and good somebody being able to write an essay on "Marx and labour", or whatever, but if they can relate it to work much more, then they are going to be much better workers. So I think the ties have got to increase. Had I been able to come to a place like this and somebody had said, "Right, this is sociology in practice. Can you see the structure here, can you see the working relationships?", it would have been immensely beneficial.

(New teacher, small private school for children with special needs; quoted in Harvey et al., 1997)

Those that went on the industrial year tended, over all, to get better degree results than those that hadn't been on the industrial year. I think it is because they had a real-world experience and most of the jobs were economics-related and in lectures and discussions you could see things come out of people's experience. That's because they had been out in the environment for a year: reading the press, experiencing what actually goes on in day-to-day firms that deal with the sort of things that you want to do.

(Recent graduate, large public financial institution; quoted in Harvey et al., 1997)

However, very little research explicitly explores how the placement experience translates into academic development from the point of view of current students. Much is taken for granted, the observed maturity of undergraduates returning from a period of work placement is assumed to carry over into a more studious or reflective approach to learning but there is little direct evidence to be found of this in the literature.

Bourner and Ellerker (1994) are unusual in providing a couple of examples of student's reflection on the integration of work experience and academic work. They quote two students, the first indicating how work experience had provided expertise in market research techniques that would be useful for a marketing option and another who used the experience for a final year project. However, as we shall see, this is integration at a rather limited level and there is something more holistic going on with our respondents.

This study, then, focuses on the effects, as perceived by the students themselves, of work experience placements on learning as well as employability.

Aims

Thus, the overall aims of the study are to:

- investigate students' perceptions of learning from placements (planned as part of the undergraduate curriculum);
- explore how values and ethical positions are developed on placement;
- investigate the extent to which students try to transfer and build on such learning in subsequent stages of the taught curriculum.

Methodology

The research was based on face-to-face semi-structured interviews with students who had recently returned from a period of work experience. A total of 82 students took part and interviews were recorded and transcribed. Interviews ranged in length from 20 minutes to an hour and a half. The students were from seven higher education institutions, including pre-1992 universities, post-1992 universities and a recently established university, formerly a college of higher education. Additional interviews, 10 in total, were undertaken with key members of staff who had responsibility for placements.

Face-to-face interviews were used because we wanted to get the student view on their experience without curtailing the scope of the answers, which would have occurred with a questionnaire. Further, we wanted to explore the nuances of their answers, which required a face-to-face conversational approach. The interviews were semi-structured in as much as we had a series of prompts to ensure that we covered all phases of the placement experience from selection of placement, through adjustment and training to engagement and outcomes, both academic and employment related. However, we started by asking the students why they had done a placement, who they worked for on placement and what they did and let the conversation flow from there.

Programmes were chosen to reflect a range of curriculum designs involving planned placements (including those where the placement element is optional) but excluding those subjects, such as teacher training, nursing, medicine, social work where the placement is wholly integrated i.e. where the 'sites' of learning are tightly defined and sequenced, and successful delivery of the whole curriculum is dependent on that integration. We also excluded undergraduate programmes such as foundation degrees for the same reason.

An initial pilot was undertaken in one institution which confirmed the importance of the face-to-face approach and helped in the adjustment of the introduction and the semi-structured protocol.

CHAPTER 2: TYPES OF ORGANISED WORK EXPERIENCE

Within this study we chose to focus on three different types of work placements planned as part of a first-degree programme:

- compulsory short (6-week) placements within a first-degree programme covering a broad range of subjects;
- compulsory thin (2x 6 months) sandwich placements within a general business administration programme;
- year-long sandwich placements (compulsory or optional) within a range of programmes including science-based programmes, general business, accounting and finance, and computing programmes as well as more specific programmes, for example, transport and logistics; economics and international development.

The range of undergraduate programmes included those areas of study in which work placements, particularly sandwich placements, had long been an established curricular device (for example, in computing and in business studies), and other areas in which work placements were a more recent addition; possibly reflecting curricular devices aimed at enhancing students' employability skills in a broader range of subjects.

We also sought cases from a small number of different higher education institutions (in a range of geographical locations). Some had a long tradition of offering work placements, particularly sandwich placements, in their first-degree programmes but, for others, work placements were a more recent addition to the undergraduate provision.

Both compulsory and optional placements were included so that we could explore the extent to which that aspect was related to the students' subsequent learning experiences once they had completed the work placement. We found a marked difference in optional take-up. In one case, more than two thirds of the relevant student cohort regularly opted to do the placement, whereas in other cases the numbers opting to undertake a placement (and follow the sandwich route) tended to be much lower; about one tenth of the eligible cohort. (See later for discussion of impact on subsequent student learning experience).

Compulsory or optional placements?

In some cases the work placement was a compulsory element of the programme and in others it was optional. Moreover, for some programmes, the status of the year-long placement had in recent years changed from compulsory to optional (for example, in one computing programme). Reasons given for making placements optional included the following.

The type of student choosing to follow the programme. For example, international students may prefer to complete their first degree in three years, and spend a fourth year on a taught Masters programme (rather than extending the duration of their first degree by a year). Further, mature students may be less mobile than their younger counterparts and hence more susceptible to the vagaries of the local 'market' for student placements.

- The competition for work placements in the locality. This was particularly noticeable in the London area where demand for placements in 'top' firms is high and many such firms' placement selection procedures seem to rely on high Alevel point scores, which some students are unable to offer. Student demand for placements in new or emerging industries might also outstrip supply.
- Giving students a choice of whether or not to try and secure a placement; depending on what might make sense for a student's own longer-term career plans.

No single reason why a placement might be optional rather than compulsory predominated. In some cases it was evident that the academic department had an oversupply of placement offers, which it could not fill. However, the following seems typical of the situation facing institutions in our study:

It is more difficult finding placements and actually there are more students to place. ... About eight years ago... we did place every [computing] student ... and then the numbers went up quite considerably I am noticing company redundancies in Sheffield ... there are a number of companies I visit who have hugely downsized and are no longer taking students, not because they don't like them... but because they have got to reduce their costs.

(G6, Placement tutor in computing, SHU)

The placement unit starts working with [students] at the beginning of the second year, at which point we'll get all second years assuming they'll all do a sandwich placement. At that point some of them will come to us saying they didn't really want to, for various reasons and they can opt out ...It was harder to opt out three years ago. If they didn't look for a placement hard enough, they couldn't just naturally go for their final year.... Now it's easier really for them... but all we do is try and keep in front of them and encourage them of all the benefits of taking a placement.... Some of our students are mature students with families and don't want to relocate, they're a bit more limited and that might be why they don't get a placement.

(C16, course leader in computing, Huddersfield)

It is also evident that levels of flexibility within programme designs and scope for students to move between programmes depending on their choice of units (including a placement unit) means that students may not perceive any particular drawbacks in failing to secure a placement. For example, in reacting to the fact that most of her fellow students had now completed their degrees, one student wryly noted:

S: ...[most of my friends] switched to other programmes.....

I: was this deliberate, or because they didn't find a placement?

S: ...Well, if you only apply for two jobs [placements], it is very unlikely that you will get a job, so I don't know how deliberate that is.

(B10, Business Studies and Marketing, Middlesex, calendar year, marketing assistant, charity)

Length of placements

The length of placement will determine, to some extent, the range and scope of activities that a student can undertake and the opportunities for the development of knowledge, skills and attributes that might be afforded by the work placement.

In our study, the short, six-week compulsory placement was intended to provide students with a taste of work experience while linking academic study to 'real-world' employment. The placement was, thus, intended to enhance generic skills and abilities, improve confidence, provide the basis for situated academic reflection and sharpen students' motivation.

The 'thin' sandwich arrangement (comprising two six-month placements — the first at the beginning of the second year, the second in the later part of the third year) was seen as providing students with wider opportunities (than a single year-long placement) to develop skills and gain experience relevant to their programme. Students were actively encouraged to seek placements in two different types of jobs or employment sectors. Moreover, two placements were seen (by the programme leader) as providing students with a distinct advantage in the graduate labour market.

However, most of our cases were of the year-long sandwich type, though there was some variation in length and intensity. For example, within one programme, if the placement was unpaid (which was the case for most of their placements) then students were expected to undertake the unpaid placement on a four-day-per-week, term-time only basis. Such an arrangement meant that students could undertake paid employment on the remaining one day a week, and outside term time. This same department was also considering other alternative arrangements for placements (for example, one or two days a week on a semester basis).

In our sample of students, about one third had already gained some general work experience prior to entering higher education and a small number (five) had continued to undertake other paid work alongside their placement (see Chapter 7).

Organisation of placements

In the main, institutional arrangements for organising placements were based in the relevant schools or departments. The cross-institutional short placement arrangements at one institution were co-ordinated through a central team that dealt with around 1000 placements per year. In general, those responsible for placements, in departments or central offices, would maintain links with organisations that had previously offered work placements, be alert to new opportunities, ensure that students were made aware of information about relevant placement opportunities, and assist (where necessary) with CV preparation and applications. In this way, securing a placement can be seen as a joint endeavour between the institution and the individual student. In our sample, the majority of placements had been secured in this way, although the actual level of institutional support and 'screening' varied, as did the extent to which students were expected to take the lead in seeking opportunities.

We are much more active [than other faculties]...we take a lot of the donkey work out of it for the students ...we go out, we scout them [placements] out...we chase

up our existing employers to find if they are going to take a new student. We select students for jobs on a rough and ready match of what the students have said they would like to do against what the employers say they would like. ... There is another primary selection criterion as well and that is geographical location... that is a big issue.... So we have this initial selection... and then we inform the student that they have been selected for these jobs and either we just send their CVs off or they have to put in an application form or whatever. So the initial scouting is done for the students and then we will do a bit of coaching through for interview techniques, we offer workshops on CV writing and stuff, it's a constant [process].

(G6, Placement tutor in computing, SHU)

In the above case, 'screening' was related to an initial matching of students' desires to work in particular aspects of computing, and employers' needs. In another case, a department had operated a system that required students to demonstrate a high level of achievement in the preceding year before being 'allowed' to apply for a year-long placement. The department had now reviewed this practice on both equity grounds, and pragmatic grounds as students could seek out placement opportunities via webpages and apply on-line.

A further dimension to the organisation of placements was evident in another of our case-study sites. The business enterprise unit, with an institution-wide remit, was the first point of contact for liaison with industry. Individual departmental placement coordinators then had responsibility for academic aspects, ensuring the placement would offer sufficient opportunities for students to develop specific skills and knowledge relevant to their overall programme. Such an arrangement has organisational benefits for all parties but it also has disadvantages, specifically where the institution's requirements for greater formalisation (for example, relating to intellectual property rights and confidentiality clauses) may erode some of the goodwill that previously existed between departments and 'their' industrial contacts.

Departments involved in our study experienced much 'repeat business' with organisations looking for placement students from their department on an annual basis. In one instance, repeat business amounted to some 20 students per year being offered placements within a single central government (Whitehall) department. A small number of institutions involved in the study organised placement recruitment 'fairs' at which organisations came to the university to interview potential placement students. In other instances, although the volume of 'business' was not high, it was nevertheless regular, with (smaller) organisations, often with charitable status, relying on the annual intake of one or two placement students to take on particular areas of work.

Paid or unpaid?

The majority of students in our sample had been paid whilst on placement but just less than a fifth (15 students) had undertaken unpaid placements. Most of these (nine) had been short six-week placements (which were a compulsory part of their degree programme). However, a small number of the six-month placements (compulsory thin sandwich arrangement) had also been unpaid, as had most of the placements undertaken by the psychology students we interviewed (for whom the placement was optional).

I wanted some kind of crime placement, either with the prison or with the police. Or I was looking at mental health problems. But everything I came across, apart from the one I took, was unpaid.

(B14, Psychology, Middlesex, calendar year, researcher in intelligence unit, police force)

Over half the unpaid placements were in educational establishments (mainstream and specialist schools, and a university); a further three were with charities.

As noted above, for one programme, if the year-long placement was unpaid, there was an expectation that students would be 'free' on one day per week (during term-time) to take on paid work alongside their placement. Students indicated that they did indeed continue with paid employment on at least a day per week basis. However, in some cases it was more. One psychology student, for example, worked, unpaid, at the placement organisation four-days a week and worked in a paid job on Friday. Saturday and Sunday.

For a few students, the need to continue with part-time paid employment also affected the type of placement they could find in their own locality.

[I wanted] something in a graphic design studio but when I actually looked about there wasn't anywhere in Chester at all and I had to stay in Chester because I've got my jobs here and I couldn't travel. I had to be here for the weekends and things like that. So I just, in the end, I thought, you know, I'd leave it to them and see what they got me but I was very pleased in the end.

(K4, Fine Art, Chester, six weeks, assistant to community liaison officer (art), secondary school)

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CHAPTER 3: CHOICE, EXPECTATIONS AND PREPARATION FOR PLACEMENT

Reasons for choice of placement

One of the main reasons that students chose a particular placement was to get an insight into an industry or type of work. They wished to see how the theory that they were learning on their course was applicable in the workplace and to supplement their learning with practical experience. Placement experience is seen as more 'saleable' in the graduate job market than other types of work experience. The student, mentioned above, who worked unpaid for four days and then in a paid weekend job noted 'I didn't really know anything about [a placement] so I had a look to see what they had and I thought it would be a good thing for me to show, when I actually go for a job, that I have had experience.'

For others, the emphasis is on linking academic study to the world of work.

I wanted to get as much experience as I could and just find out a bit more about the sort of application of the theory about what I'd learnt in my degree.

> (T2, Information Systems and Management, Leeds, academic year, junior software engineer, software company)

I think also a better understanding of economics in general and how business, because we do a lot of theories and I just wanted to see what the reality was. (K9, Economics and International Development, Bath, academic year, assistant, large internet company)

Other students were aware that working would enhance their employability. One student had heard that those who had undertaken a placement increased their grade and this formed part of his rationale for taking a placement.

Academics at university encouraged students to take it for the reason that [there is]... a positive correlation between students that do a placement and [those who] are accepted onto jobs after University. Also, the correlation between the grades going up, as well, by an average of 2%, I heard.

> (B21, Economics and International Development, Bath, calendar year, assistant globalisation desk officer, government department)

I decided to do a placement year because it's furthering my career even more. (T7, Biology and Management, Leeds, academic year, distribution channel management, large computer company)

Primarily it is for just some work experience, I understand that employers, after university, don't just look at the academic record but also some work experience. I thought it is a very good opportunity and university has the scheme in place, so I just thought I'd take advantage.

(B4, Economics and International Development, Bath, calendar year, junior analyst in policy division, government department)

Because I'd like to continue in the area of psychology after I've finished my degree and I have read around it and I know that jobs are quite difficult to come by after a degree if you don't have some sort of experience.

(B17, Psychology, Middlesex, academic year, research assistant, university department)

Amongst science students, the primary motivation to do a placement was to gain experience that they felt was missing from their degree or to extend their learning into a different area.

We don't get a whole lot of hands-on lab experience with the degree and I really wanted to have some time in a laboratory.

(K6, Pharmacology and Toxicology, Kings. academic year, laboratory researcher, large pharmaceutical company)

It was something I was never going to get the chance to do again if I didn't do it with my work-based learning. Also, doing purely a biological course, we hadn't done any sort of animal behaviour or anything like that so I thought it would be interesting to go and see the sort of things that they do on that course.

(K2, Biology, Chester, six weeks, whale researcher, natural history foundation)

I did actually want a placement that was non-lab [based] because I didn't want to go to a lab environment simply because I'd had lab exposure via my course. I was interested in non-lab aspects of the industry.

(B6, Pharmacology and Toxicology, Kings, calendar year, regulatory affairs support officer, large pharmaceutical company)

For some students the rationale for choosing a particular placement was to test whether they would like to work in that particular job role, or industry, when they left university. The opportunity to spend a year working without making a long-term commitment was an attractive proposition for some.

...it gave me a chance to see if this was something I wanted to do or not and, you know, even if it wasn't what I wanted to do at least I knew that having had a year's work experience it was something I could rule out doing.

(T3, Information Systems, Leeds, academic year, product tester, software company)

It's not compulsory as part of our course to do a work placement but I opted to do a work placement because I thought a year in the industry would give me more hands on experience to decide if it's something that I did want to pursue or don't want to pursue. That was my main reason for doing work placement.

(T1, Information Systems and Management Studies, Leeds, academic year, PA and IT support, oil company)

Even short placements provided a valuable taster.

Well I've been considering for a while now to go and teach it and I wanted to do secondary geography teaching, I decided last year during my degree, but I didn't have any experience of working in a secondary school for a long period of time, so I just decided it would be a good opportunity to spend a lengthy period of time in a secondary school really.

(K3, Geography, Chester, six weeks, classroom assistant, high school)

Others took the opportunity to undertake an experience they had not had before.

The interest points were, "Okay I'm going to be a management trainee so I'm going to learn some managerial skills and also I'm going to work in a luxury

retail department and in London." Those three things I've never done them before so they were of great interest to me.

(K8, Retail Management, Middlesex, academic year, trainee manager, department store)

For two students the opportunity of living abroad was a major factor. As well as having new experiences the international aspects would, they thought, broaden their attractiveness to future employers.

I love New York and it is one of my favourite places in the world. I absolutely love it. I don't really want to work in public relations but I considered it beforehand. I always want to work in sports media [and] ... I thought I could take my media skills to the international level. That will be useful for me. That was the reason I chose it

> (K13, Business Administration, Bath, two six-month placements (a) confectionary manufacturer (b) PR Company)

I got to go back to Europe and work in Europe because I grew up in Germany for quite a few years because my parents were in the RAF. So, one of my goals has always been to go to Europe and work there for a while; so I achieved that, as it were.

> (C2, Computing Science, Huddersfield, academic year, research and design group, university department)

For some students the placement was seen as a break from an academic career, which had started with GCSEs and had meant them taking examinations every year since then.

I think it's really good to take a break because I came straight to university and ... I was a bit sick of doing exams and everything and it was nice to get out and just work for a bit. Also the financial side of it, it was, like, a quite good paid placement relative to what other people were on, so it was nice to earn a bit of money.

> (T2, Information Systems and Management, Leeds, academic year, junior software engineer, software company)

... it was like GCSE, AS, A-Levels, every year I'd been doing exams. I was getting to the stage where I didn't want to do any more exams, I needed a break. (T8, Business and Management, Leeds, 14 months, manager/client relationships, large computer company)

There are students who have no particular interest but just take a placement because it looks interesting, or because they think the experience will be useful. One student took a placement in auditing and has now, after being offered a job on graduation, decided to follow this as a career

I looked at finance but I didn't know what I wanted to do. And then this job came up and it seemed interesting and I thought, why not, because I didn't know anything about auditing but I might as well have a go at it.

(G4, Business Studies, SHU, calendar year, trainee auditor, accountants)

It was an industry that I had never thought I would want to pursue but the reason for taking it was because I thought, well it's an organisation. I wasn't bothered

about what they did, whether they make tools whatever they did, I just wanted some experience from an organisation.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

Expectations

Most respondents expected to benefit from their placement experience, after all, many of them had opted for a programme with a placement element. In general, they expected to gain experience, become more employable, develop some skills and build networks. However, there was not always an expectation that the placement would reflect the programme of study.

I wasn't really expecting a strong relationship between the two — placement and degree.

(B15, Psychology, Middlesex, academic year, charity)

In the main, expectations about the organisational structure and what they would actually be doing were rather vague. The following respondent was unusual:

The organisation as a whole — it was just the typical things which you expect from a big organisation. There was a sense in the department and maybe in the organisation that there's a lot of change for changes sake, things like that. But in general I think it went fine it's just sort of normal big corporation, that's what I expected.

(T5, Management Studies, Leeds, academic year, marketing analyst, small firm)

Most didn't really know what to expect of their placement when they arrived:

At first it was quite overwhelming, definitely...but my manager was there to kind of like guide and help...obviously I had some difficulties in terms of settling down in a new environment. I didn't really know what was expected of me and obviously sometimes I just thought do I really have the right skills to be able to do this job.

(B9, Management and Economics, Middlesex, academic year, research analyst in performance management, park authority)

Several students indicated that the level of responsibility was much more than they expected:

When I first walked in I didn't realise what I had let myself in for and I mean even the previous students kind of explained, and me and my counterpart changed this around, we did...a student handover folder for the students who take over with proper detailed information on what needed to be done for each of the projects that they are going to be involved with and emphasise how much responsibility lays on their shoulders.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

I had a lot of responsibility, a lot more than I was expecting.

(C2, Computing Science, Huddersfield, academic year, research and design group, university department)

I didn't expect to have a, sort of get all the really cool stuff to do because at the end of the day I'm a placement student...

(C12, Interactive Multi-Media, Huddersfield, academic year, IT department, government department)

In some cases, the students were treated much like the full-time staff with concomitant expectations of their contribution to the organisation.

I was being paid to actually do a job and the expectations were very high, and there was someone monitoring my progress all the time. I had regular meetings with my manager and with other team members, making sure that everything was going as it should be and if there was any problems obviously they were rectified very guickly.... I was expected to learn guite guickly when I was down there.

(T3, Information Systems, Leeds, academic year, product tester, software company)

On the other hand, some students found that they had rather less work than they anticipated or desired.

I did have to prove myself but the workload wasn't what I expected, which isn't necessarily a bad thing because I think there isn't really that balance in the UK either, people work too long hours, I think, and don't have enough time for their family, whereas in Zambia your family is more important than work, I think.

(K10, Economics of International Development, Bath, academic year, research assistant, micro-finance firm, Zambia)

I've been told all these things I'm going to do, go into the job and it's completely different to what I was expecting.... I went to speak to my boss who was actually the contact I'd got there and I said to her, "... I'm a bit disappointed, I came here and I don't feel I've been offered the work that I was expecting and I've not got enough to do and I'm sort of chugging out the days", kind of thing, and she said, she realised there was a problem and said it was because of all this internal restructuring that was going on and it was just a bit unfortunate.

(K12, Business Administration, Bath, three placements in a year (a) recruitment assistant government department (b) admin. assistant, large computer company (c) admin. assistant, law firm)

I suppose I did expect to be more — I was involved with all the day-to-day processes, but I thought there would be a bit more challenging work.

(G1, Business Studies, SHU, calendar year, large police force)

Preparation for the placement

The process of organising and managing placements is usually one involving a negotiation between the department, the placement provider and the student. The students are prepared, in some cases, by the development of a log, which includes learning outcomes and is designed to encourage reflective learning. This process is to a certain extent subject or institution-specific. For example, a course leader in a computing department described the process by which students' work is linked to the aims of the placement:

[T]hey have to produce documents for us, monthly logs of what they are doing where they've to... a simple list of what they are doing and then they've to

look at that and think, right, what am I learning technically, what am I learning professionally? And then there's a third element, where they have to sort of ponder, consider what problems, what achievements, have they had. Now, obviously, that is completely different for every individual student because what's a problem for you is easy for me and vice versa. So, they have to do one of those every month and it's an attempt to get them to consider what they are doing and, in terms of the achievement and learning, who they are becoming. So, that occurs monthly and they have to produce ten of those in order to qualify for the sandwich award and they have to be observed and signed off by both us and their supervisor.

(G6, Placement tutor in computing, SHU)

The preparation process is as important for a short placement as for a long one. One of the sample institutions that provided a six-week placement preceded it by an intensive two-week preparation period. Although one student, who was not highly motivated by the placement, thought the preparation echoed his course:

I think before we went on the placement we had a week telling us what we needed to know about it and a lot of what we were told we had already learned on the business course. But you weren't put in a class with just business students but from all courses so I think if they had just put people on the same course together, they wouldn't have to tell students on a business course how to do presentations, and things like that, because we'd done it already so many they could have told us something else, really.

(L2, Business Administration, Chester, six weeks, website developer and assistant, sports shop)

In some cases, the preparation also has to encourage students to weigh up appropriate choices if they are looking to use the placement year towards further qualifications.

Although the placement tutor is keen to increase student demand for year-long placements, the programme leader accepts that students need to take into account a range of issues in deciding whether or not to 'opt' for a placement. For example, if the student is aiming to become a clinical psychologist, the placement year 'may' count as a year's research experience and hence meet one of the pre-requisites for further training (Doctorate in Clinical Psychology) towards becoming a clinical psychologist. However, a placement year would not necessarily 'count' towards meeting any of the further training/education requirements to become an educational psychologist.

(B22, psychology tutor, Middlesex)

CHAPTER 4: TYPE OF WORK AND EVOLUTION OF THE JOB

Type of work

Two thirds of the jobs were in private companies, a very small number in charities and the remainder in public sector organisations; principally educational establishments, but also the police, local authorities, and central government departments.

Table 1 shows the type of placement organisation and type of activity by broad programme area.

Table 1: indicating type of placement organisation and general area of activity, by broad programme area

Programme area		organisa	ation	Type of activity		
G	Pri-	Pub-	Not-			
	vate	lic	for-			
			profit			
Arts/ Humanities		4	1	Classroom assistant; local community assistant.		
Accounting/	3			Accounts assistant; in-house corporate communications.		
Finance				•		
Business/	37	5	2	General administration; accounts database maintenance;		
Management				auditing assistance; estate agent assistance;		
				public relations; human resources; marketing;		
				business analysis; competition analysis; financial analysis;		
				product development; web-site development;		
				import/movement of commodities;		
				general business logistics/distribution;		
				stockbroker assistance.		
Computing (+	16	4		Applications; business analysis; client support;		
Information				technical/product development and support;		
Systems; Multi-				web-site design; systems configuration support;		
media; Software				software engineering; network administration.		
development)						
Science	4	1	1	Wild life researcher; crime scene investigation;		
(Biochemistry;				laboratory assistance; drug development/regulatory aspects.		
Pharmacology;						
Biology)						
Social Science	1	8	1	Classroom assistance; crime data research;		
(Economics;				scientific research assistance; data analysis;		
Psychology)				political lobbying; financial analysis; web-site development.		
Total (of which	61	22	5			
four undertaken						
outside the UK)						

The largest clusters of students in our sample were undergraduates on either business and management, or computing and information systems programmes. Generally, there was an alignment between students' undergraduate programmes and their placement activity. Thus, those studying business and management had jobs across the broad range of business functions including business analysis, general administration, human resources, marketing, public relations and web-site development. Students following more specific logistics/transport programmes had placement activities linked to importing goods and distribution of commodities.

Computing students' placement activities ranged from client support and network administration through to product development, web-site design and software engineering.

I had two roles there. My main role was testing web-sites for compatibility and accessibility issues and general support role for the entire IT department.

(K15, Computing, SHU, academic year, IT support, large bank)

I was offered a position in the product publication and engineering team as a product tester down in Hemel Hempstead, which is where I was based. So I was put into a team testing the software, the management software that went on to [the company's] products. So I was working in the sort of lab environment, sitting in front of computers all day, which was alright, it was alright. I learnt a lot to do with [computer] networking which was useful for my course.

(T3, Information Systems, Leeds, academic year, product tester, software company)

We also interviewed smaller numbers of students on other specific programmes and placement activities were wide-ranging. For example, psychology students' activities ranged from classroom and residential care assistants, through research on crime data, to scientific research assistant. In other cases the placement was very specific to the subject.

I did four weeks at Police HQ and a week at CSI in Chester.

(K14, Forensic Biology, Chester, six weeks, forensic assistant at a police HQ and CSI assistant)

Economics and international development students had undertaken placements in several different central government departments including the Foreign Office, the Treasury and the Department for International Development. Their placement activities ranged from economic data analysis to policy analysis and web-site development.

With different placement lengths and institutions offering students the opportunities for placement at different points in their course, it was not surprising that students undertook a variety of types of work, ranging from the fairly mundane to complex.

I was literally on a computer eight hours a day, as well as just doing other bits and pieces that needed doing for my managers, then I was just there to do it. So, it was more than just an assistant, really, but my main jobs were applying accounts and writing off accounts.

(K22, Business Studies, SHU, two placements in a year (a) internet site manager, licensed retailer (b) accounts assistant, large power supply company)

As avian influenza started to take off, then, obviously, we needed to be doing something. It actually started to move out of my hands then because it wasn't really something that I should have been doing. But I still had quite a lot of high-level involvement in it. I still had policy solutions we devised ... that ran through the Government, so that was quite interesting.

(B21, Economics and International Development, Bath, calendar year, assistant globalisation desk officer, government department)

Some students had work that involved working abroad; others were given the opportunity as recompense for doing work that was perceived as being underpaid.

It was in Brussels which I thought was a great opportunity; I wanted to go abroad. It was for [an e-based retail company] ..., it was their... European public policy office in Brussels.

(K9, Economics and International Development, Bath, academic year, assistant, large internet company)

To say thank-you to the placement students they allow you to go on a trip overseas. Obviously it has to be work-related, but they say, "Okay, you do the work of say someone who earns £22,000 and you don't earn as much as that. We're not going to compensate you financially, but we will send you on a trip as long as it's essential to the work". So the other placement student, who was the Caribbean Desk Officer, got to go to the Caribbean and she spent a week there. As a Globalisation Desk Officer, most of the work takes place in the UN headquarters in New York, so I went there.

> (B21, Economics and International Development, Bath, calendar year, assistant globalisation desk officer, government department)

Some students undertook two or three placements during their course, which meant that they were able to have a variety of experiences, for example, working in the UK and abroad, working for different size companies and working in different fields, such as public and private companies.

I did two [placements], one in my second year... in Birmingham in marketing. I started [another placement] this year and did ... six months in...New York. ... I do really like [the Birmingham company] and think it is a great company. It's good to have the work experience in quite a big company.

> (K13, Business Administration, Bath, two six-month placements (a) confectionary manufacturer (b) PR Company)

I did my first one at [a cosmetics company] and my second one at [an international charity]. At [the cosmetics company] I was in PR, I was working in the department for all their designer fragrances, so that's thing like [well-known brands]. The work at [the cosmetics company] was vital and the work that I was [doing], it was vital for the run of the PR department but it was not rocket science. I did a course in environmental management and I did international business and, so when I was at [the international charity], I was really believing in what I was doing.

(K11, Business Administration, Bath, two six-month placements, (a) PR assistant, cosmetics company (b) marketing, charity)

The contrast in placements helped some students to decide what was important for job satisfaction, as the student above went on to explain.

I felt that no matter how hard I worked all I was really doing was making rich people richer: all I was doing was funding the [cosmetic company owner's] family, or the ... company group and that kind of took the edge off my work drive. It was enjoyable but at the same time what good was I really doing for the world? You know, the world really doesn't need another perfume or another lipstick, you know it doesn't matter if you know you don't have Shade of Honey Moon Blossom. That's why I chose [the international charity] the next time,

because I wanted to actually do something that I believed in, that I cared about, and that I felt would make a difference.

(K11, Business Administration, Bath, two six-month placements, (a) PR assistant, cosmetics company (b) marketing, charity)

Even though some students had one placement, they had the opportunity to work in different divisions, which gave them a similar experience to working in different companies.

I worked in three sectors medical, pharmaceutical (vision care division where they pack all contact lenses) and another place where they develop all creams and lotions. Basically three different businesses.

(K20, Software Engineering, SHU, academic year, technical support, large soap product manufacturer)

I worked in Luton for six months in the transport office and then I worked in Preston in one of their warehouse sites for six months as well: so I got two placements in one, really.

(C14, Transport Logistics Management, Huddersfield, 2 during academic year, transport office (Luton) and warehouse (Preston), brewery)

Evolution of work

Although the majority of students were initially in supporting roles, providing assistance to particular functional teams, more often than not these roles changed and developed during the course of the placement. Many students (as noted above) also had the opportunity to work in different divisions or departments within a single organisation, which gave them work experiences across the business.

The extent and nature of such changes depended to some extent on the length of the placement but, even within six-week placements, most of the students interviewed had been able to take responsibility for specific activities.

I pretty much worked on it [a guide to local sites of geographical and geological interest] by myself, but there were people available if I needed them.... Also, I got to do fieldwork, which is always a good skill, and it was quite interesting having to write — because the leaflet was aimed towards anybody...not for...an adult who's trained [in geography] — but just make sure I wasn't using technical language. It was quite interesting because it makes you think about the sort of language you use and that was a different perspective from what I was used to.

(L3, Geography, Chester, six weeks, nature guide, NGO)

Six-month and year-long placements clearly provided scope for work activities to develop quite considerably. In describing what their jobs entailed, most students explained how in the initial few weeks, they were given fairly routine tasks to do, often supporting other members of staff so that they could 'learn the ropes' and gain an understanding of how the office or department worked and how their team functioned. Students described this undertaking of routine tasks and getting to know others in a department (and getting 'known') as a way of gaining the trust of other staff, and recognition of their capabilities, prior to being given responsibility for specific projects.

The great thing about my placement was they had no expectations of a student working for them and I had no expectations of a placement. Whereas, other organisations who have had students in the past...may have had expectations of the student starting. Whereas, where I worked, the first couple of days, I was sticking stamps on envelopes and was thinking what have I got myself in for until I got more responsibility and they were able to see what I could do. I was given a lot of responsibility, really.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

Initially, I mean, there was actually a very good mix, I mean there were more mundane administrative tasks...I wouldn't say filing, more sorting out of files and stuff.... They had a lot of information that needed processing and I did that sort of task [in recruitment].... Then my role developed from that, I took more responsibility as I went on, in that I basically became in charge of the HR graduate recruitment and internal recruitment.... Then in training and development, I assisted on a project but then I was given the lead of the project to manage everyone's input.... They were launching e-learning throughout the whole office/site and at first I was basically listening in to conversations but then I was given more...had to sort of train, where we were going, making plans and things and making sure everyone knew what they were doing and it, sort of, took off really.... [I] took over the whole project for the training and development manager. She was obviously still there keeping an eye on how everything was running...but she just sort of left the running of the launch to me.... I really appreciated it [the extra responsibility] and the fact that others trusted me enough to do that sort of role.

(B13, Human Resource Management, Middlesex, one year, human resources intern. ticketing and travel software firm)

I think the level of responsibility was definitely what you earned and, I mean, how much you were willing to take on. I, like, wanted to get as far as I could and therefore took every opportunity I could to get more responsibility; and I definitely think it was worth it.

> (T2, Information Systems and Management, Leeds, academic year, junior software engineer, software company)

For some students, the increased responsibility was a natural part of the planned development of the placement. Greater responsibility also came about through unplanned events, for example, having to cover for staff absences and changes in staffing levels.

Initially...I was on the case with vehicles leaving the premises [of a distribution depot] or if sub-contractors were doing the work...if they hadn't arrived on site, why they hadn't arrived on site. Just basically trying to push people out of the yard, getting on to the road and also diverting drivers if they weren't aware [of traffic problems] around on the road network.... Then I helped to run a contract [with the prison service] to cover for a guy when he was on holiday. So, I, sort of, had a little department to myself.... But the final thing, the most important thing I did in my opinion, was that we had a new contract with [a major yoghurt company].... It actually went live in July, and my placement ended basically at the start of September, and what I did was, from the start, there was a new

planning system implemented, so I learned that so I could train other people on it. But what I did also, eventually I was given my own fleet. ... I was basically each day liaising with [the yoghurt company's] management...managing drivers' shifts and deciding where they're going to go each day and planning actual routes...so I had my own little area.

(C4, Transport and Logistics, Huddersfield, academic year, traffic office, logistics company)

When I got there, there was one guy in the back office so I was basically shadowing him for the first half week: shadowing him because they have three internal computer systems and they are used for everything all the jobs you do so you have to be constant on them at first. After that I felt fine on my own. You pick up the basic things within a week; there are ... different screens and vou are given a user guide for the systems as well. If you come across any problems you can refer to that or I had my manager there to ask any queries.... There were all sorts [of jobs]. A lot of the time, if the brokers had a client on the 'phone who had a particular problem, they would put them through to my manager. While he was away they would be coming through to me and I had to think on my feet a lot more.... There was a time when I thought I'd gone as far as I could; there wasn't a lot more I'd learn. But, then when he was away, he was on sick leave, away sick for about two weeks. There was a lot more work involved when he was away because, obviously, he had things building up, so I was responsible for taking over his work. But yes, it was definitely something I enjoyed the responsibility....It was a bit daunting at first when I was on my own because it was not that far into the [placement]... but I enjoyed the responsibility.

(L6, Business and Technology, SHU, one year, stockbroker's assistant, stockbroker)

Such evolution was, in the main welcomed by students, though some obviously found the prospect of specific responsibilities quite daunting initially. Also, although students who had completed six-month placements spoke of specific projects they had been involved in and specific activities for which they were responsible, in general it seems that it is the year-long placements which provide, on a more regular basis, opportunities for students to take on significant levels of responsibility (and become, in fact, 'just' another member of staff).

But a small number of students also acknowledged that though they were kept busy throughout their year-long placement, the activities themselves were relatively easy and unchallenging.

A significant minority also explained how they became bored with routine tasks (often about six months into the placement, but sometimes much earlier) and took the initiative to secure more challenging activities.

From the very beginning I was like, "Please can you give me something more challenging." I'm not trying to be...I just thought that I'd get it as a placement [student] ...but to be honest...if I did just that for a year [copying and pasting numbers from a database into a report] that's what I basically got paid to do.... But it was in my interest to make the most of my placement year....

(T7, Biology and Management, Leeds, academic year, distribution channel management, large computer company)

The thing is, when I first started, my job description was very small, because the other interns kind of left it, they kind of got bored...and thought, "Okay, we'll just get on with our coursework.". Whereas, I fussed around a bit, and I got loads and loads more responsibility over the time. I was forcing them [the managers] I was not just asking, I was, like, "Please give me more!" (B10, Business Studies and Marketing, Middlesex, calendar year, marketing assistant, charity)

It is interesting to note how those students who indicated they had specifically asked for or sought out more challenging activities were also rather critical of other students who had also been on placements with the same organisation or department (either concurrently or previously) but who (in their opinion) had not made the most of the opportunities for developing the role, or who had been content to 'do the minimum' and not seek out additional tasks and responsibilities.

At first I was a bit wary [about doing an optional placement] and I know it's all a personal experience. It is really what you put in, you do get out. If you do want more work, and you push, and show that you are enthusiastic, it does make a difference. My other colleague wasn't so interested, wasn't so keen on the topic and it showed and he didn't get that much out of his placement because he didn't push things forward, he didn't show a proactive attitude.... Even though we both worked in the same places, and we both had the [same] title our experiences are very different. It's really that you really want to do it. You can't go in and say, "Yeah, I am going to doss around here for a year." It's really pointless.

> (B4, Economics and International Development, Bath, calendar year, junior analyst in policy division, government department)

However, not all six-month or year-long placements were in environments or circumstances that would necessarily provide opportunities for evolving the job. Rather, as in the case of classroom and residential care assistants in specialists schools, the length of placement was crucial in providing sufficient time for the student to develop a level of trust with individual children, before becoming actively involved in the work of the schools.

At the beginning I was very much a shadow, just an observer if anything, and at times you do feel, like, incompetent...because you don't know what the structure is, you don't want to step in at a certain time. It's very hard, each child's different, some children you have to ignore their behaviour, other children you have to form a bond and you...can't work with children on a oneto-one basis one hundred per cent just walking in through the door. You've got to build that trust with every child.... I think I got more involved...around Christmas time, December [after four months in placement]

> (B16, Psychology, Middlesex, academic year, learning support plus residential care assistant, residential school for children with behavioural disorders)

CHAPTER 5: TRAINING AND SUPERVISION

Training during the placement

Evolution of placement jobs, whether planned at the outset, initiated by the students themselves, or arising out of staff absences and the like, was usually supported by some form of training. However, in ten cases, students indicated that they had received no training at all during their placement.

Some of these were short, six-week placements, and students acknowledged that the short duration of the placement meant that there had been no time for training. That said, one such short placement organisation had provided the student with background reading materials prior to taking up the placement (in a school), whilst another had provided on-the-job guidance and training (relating to web-site development).

However, it seems that no specific training had been provided in a small number of other cases involving six-month and year-long placements as well, although on-thejob guidance and support had been provided.

Their policy was they don't put placement students on courses just because we don't work here [sic] we're only here for a year.

(T4, Computing, Leeds, academic year, network administrator, computing company)

They didn't give me any training, but there was another placement student there, so I could just ask him for help. The senior web developer left, so it was just me and another placement student...just supporting each other.... And then I just put in a lot of my own time.... I'd go home and study every night to be able to cope with it. It was a down point that there was no training given and no introduction.

(G3, Computing, SHU, calendar year, junior web developer, web development company)

Most students had experienced ad hoc, or systematic on-the-job training, and had attended in-house training sessions. A smaller number (about ten) had also been sent on external training courses.

Several students who had taken-up year-long placements in large companies had taken part in general induction sessions being laid on for all the new (graduate) staff starting around the same time. Such inductions ranged from two or three-day events (covering company-specific, and industry-specific aspects as well as social events) to much longer periods of induction — one lasted six weeks and included induction into company-specific database and IT systems, job-specific training and more general awareness about overall company aims and objectives and its place in the industry and wider markets.

Particular training linked to the specific nature of students' placement activities was also in evidence: for example, carbon14 and radioactivity training (for laboratory assistant), anti money-laundering test (for financial services), wine-tasting courses (for catering/hospitality manager), interviewing skills (for human resources intern), manual handling and safe holding of children (for classroom assistants), training on

software and reporting tools (for administrator/IT support to interrogate in-house database), training on industry-specific software (for promoting merchandise).

More general IT-skills training was also prevalent, particularly the use of software relating to spreadsheets, databases, and general presentations, and at least two students had completed the European Computer Driving Licence whilst on placement.

Students had also been able to go on a range of (primarily in-house) courses relating to the development of personal skills, for example, assertiveness; negotiating; organisation skills; presentation skills; time-management; effective writing; teamworking.

Alongside such formal training, the majority of students had experienced on-the-job training. On-the-job training was sometimes supported by the company's own extensive range of on-line training materials and manuals, and on-line databases. Though such training and support tended to be made available for use as and when an individual considered they needed to access it, for one student the on-line learning packages was a key part of developing their role.

...before using a [software] tool, we had to...go through some training and then you had to pass an exam to say that you are qualified to use this tool and that you could have a password.... A lot of it was computer-based learning.... You need to make sure that you understand what you're learning because they make you pass the exam at the end, so that you're not wasting the company's time. You actually pass it and then you can actually get on with doing the job. So there was a lot of training.

(C5, Computing and Business, Huddersfield, academic year, administrative post, large computer company)

A small number of students, all working in large organisations, had their own training budgets (and in one case, this amounted to £2,000) and were able to choose, within reason and with the approval of their line manager, which courses they would attend. Some students working in larger companies considered they were treated as any other employee (and had the same training budgets), which in some cases was unexpected.

...they trained quite a lot.... I thought I am going to be with them one year, why are they going to bother? And really, I got quite a good surprise.

(B5, Biochemistry and Microbiology, Kings, calendar year, junior scientist, large pharmaceutical company)

I went on two Excel courses and they were both of benefit to me, because I didn't really know much about the programme before.... Obviously, it cost them quite a bit of money to send me on them and knowing that I was only going to be there until September they didn't really want to send me on them, especially when there was work that I could be getting on with, which would help them out more than training me.... But they were pretty good and said that if I wanted to go on them then...

(K22, Business Studies, SHU, two placements in a year (a) internet site manager, licensed retailer (b) accounts assistant, large power supply company)

Other students sensed that they had not been given specific training opportunities, over and above those already planned for a wider group of staff, because they were 'only' there on placement.

... obviously they did invest in me but instead of saying "Oh, let her go on a training course"...it's not essential so, therefore, they just carry on with what it is I know [already].... But I didn't request to go on any training at all, because for me, I know I am there for a year anyway. So, therefore...from their perspective it would be, like, "Okay she is a placement student so why should we invest £300 or £400 on training and she will be leaving soon anyway?"

> (B9, Management and Economics, Middlesex, academic year, research analyst in performance management, park authority)

For a small number of students, training was seen as a standard, planned part of the overall placement activities. For one student, working in a central government department, ten per cent of his time during the placement was meant to be allocated to training (although in the event only about five per cent was spent on training). Another student (working for IBM) went on a three-day course every month during the placement period.

For another student, learning (rather than training *per se*) pervaded his daily routine: though this arrangement was clearly the exception in our sample.

They were very much learners, they believed in learning, so every day we'd take time out to read books, spend an hour a day just reading...they'd recommend books on a subject, but obviously you'd look on the net and find things out. ... There was no need for courses... there was a principle that you can teach yourself anything. If you don't know it, someone in that room would know it, they really are experts in the field.... And any questions, I could ask [him] he wouldn't tell you though, but he'd give you guidance on how to find it yourself. And, again, it's a...if you learn yourself you learn better than if you view it as work....

(G5, Software Engineering, SHU, calendar year, student software developer, data processing company)

Whether training was planned, and seen as a specific activity, or occurred in a more ad hoc way, with specific support and guidance relating to particular tasks provided by other members of staff, as and when needed, most students interviewed indicated they had undertaken some form of training during their placement.

Supervision and mentoring

In many cases students had a clearly identifiable supervisor whilst on placement who also often acted as a mentor.

I was assigned a tutor the whole time I was there [as a classroom teacher] and ... she had a tutor group so I'd be with her every morning, with her tutor group...for registration.

(K3, Geography, Chester, six weeks, classroom assistant, high school)

And she was really helpful, explaining me everything; because the EU is so complex with different institutions.... She was really there from day one

explaining me everything in detail and ... even though she travelled a lot...I could always phone her, e-mail her.

(K9, Economics and International Development, Bath, academic year, assistant, large internet company)

In the case of the short placements, the mentor was seen, by some students, as the tutor based back in the institution:

All the way through we had...our work-based learning mentor...who we had our sessions with before we went, and she was really good. She e-mailed us...every week with updates...because we had our project to do at the end of it, with updates on that and then asking how we were; and that was very personal.

(K4, Fine Art, Chester, six weeks, assistant to community liaison officer (art), secondary school)

Some students did not identify a clear mentoring process but felt that they were rather left to their own devices. In some cases backup support was available.

As much support as I needed. I got a supervisor...who basically did a similar job so I can go to him and ask him if I need any help or issues or questions. He would be able to tell me. I was just sort of left to my own if I could do it.

(K15, Computing, SHU, academic year, IT support, large bank)

I mean endless really, not so much from my supervisor, because my supervisor gave me the work because she really didn't know how to do it herself. So she gave me the work, then there was 40 members in the department where each person knows different things. They were expert in what they did. Really, that was almost like a huge resource, like a huge library of information to which you could go to anytime. No problem or anything they will give you half hour anywhere, if I say I got this problem, can you sort this out? And, indeed, that's what happened. Lot of the time you do get problems and you need help.

(G2, Computing, SHU, calendar year, computing engineer, pharmaceutical company)

However, some students felt that they were rather left to their own devices.

Not any, at first I didn't. It's not that I didn't get on with my mentor, but...I didn't know if she, sort of, liked me if that makes sense? So I was quite, ... nervous, sort of unsure about our communications and stuff; and the feedback, I wasn't sure if I was doing okay at first or whatever... But at the end of the placement the feedback I got from her was really good and I was really... surprised at her comments.

(K3, Geography, Chester, six weeks, classroom assistant, high school)

[It] was bizarre. In my first week, my immediate supervisor found out that he was made redundant. He spent most of his time out of the office and looking for other jobs. I was basically stuck on my own.

(K13, Business Administration, Bath, two six-month placements (a) confectionary manufacturer (b) PR Company)

There was one person that was really my boss, if you can call it that way, and there was one person above that, that I had the interview with but he was always away doing business. So, it was just the person in the office that I was with but he was away at meetings a lot.

(K14, Forensic Biology, Chester, six weeks, forensic assistant at a police HQ and CSI assistant)

CHAPTER 6: PERSONAL DEVELOPMENT: SKILLS, ABILITIES AND SUBJECT KNOWLEDGE

We were particularly interested to discuss with the students the extent to which they considered

- they had developed as a person during the placement period;
- their subject knowledge had increased as a result of the placement;
- their academic abilities and approaches to learning had changed.

In the previous chapter we explored ways in which placement jobs, and activities within those jobs, evolved during the course of the placement: but what did students consider they had learned from undertaking those activities? Work placements are designed to introduce students to a working life and set of practices that are both generic and specific. At the very least it is generally assumed by staff, employers and students alike, that work placements enhance students' self-confidence, introduce them to working in different environments with different types of people, as well as developing personal organisational and team-working skills. This is often a key reason why students enrol on such courses.

Perhaps not surprisingly, students found it rather easy to identify specific skills they had developed (particularly IT skills) and could also identify development in a range of personal and interpersonal skills. The analysis of interview transcripts identified three broad clusters of skills that students discussed (Table 2).

Table 2: Interpersonal, personal and intellectual skills developed, by number of students citing such development

Skills cluster	Particular skill	No. students
Interpersonal	Oral communication	57
	Written communication	38
	Client liaison	30
	Networking	28
	Reporting to senior management	24
	Phone/e-mail protocols	18
Personal	Confidence	54
	Personal organisation	50
	Time management	32
	Adaptability	22
	Flexibility	20
	Maturity	9
	Risk taking	2
Intellectual	Subject knowledge	55
	Confidence with subject matter	36
	Project management	28
	Analysis	26
	Synthesis	16
	Critique	8
	Foreign language development	5

Communication and networking

Most students indicated that their communication and interpersonal skills in general had improved as a result of the placement situation.

I do believe my communication skills, my verbal, the powers of my listening and speaking skills would probably not have been enhanced had I not been on placement.

(L1, Business and Technology, SHU, calendar year, marketing associate, biotechnology company)

Oral communication was clearly the main interpersonal skill students considered they developed (with over two thirds citing it). For some students, oral communication skills were primarily developed by having to contact and talk to people in other departments within the same organisation, or having to 'represent' their departments at internal meetings. Not all students felt comfortable having to do this initially but, in retrospect, could appreciate the benefits of such development.

I'm more able to speak in a group and give my opinions, whether they're right or wrong! It's [the placement] just brought me out as a person, because I was, you know, what you have to do, you have to communicate with other people. I had to go to meetings with people I'd never met before.... So, I was representing the library basically, I don't know why they chose me! I was sure I wasn't going to go, but she [line manager] said, "Go! Go!" So, I just went.

(C3, Computing and Business, Huddersfield, academic year, helpdesk, learning exchange)

Already, I gave a presentation, about project failures, in a tutorial for five minutes. I think in previous years, I wouldn't have been able to do it. I volunteered to do it for our group and was quite happy to do that. I think, before, I wouldn't have done it. So, really, verbally my communication skills are improved.

(G2, Computing, SHU, calendar year, computing engineer, pharmaceutical company)

Talking with other members of staff working at a similar level within the organisation was clearly one aspect of oral communication but for many students more significant challenges were posed when having to talk with more senior colleagues, and outside clients. However, though initially a daunting prospect, students clearly rose to the challenge.

It was quite daunting, particularly at first, talking to outside clients and speaking to people more senior in the same department and people in other departments... like marketing and people in PR.... I suppose, as the placement went on, I gained confidence with that and how to approach people when you have got problems, particularly the outside clients.

(T6, Management Studies, Leeds, product management assistant, large telecommunications company)

At first, I used to be really shy speaking to suppliers if they were chasing you for money...you know some of them really hassle you: they just scared me so much! But by the time I'd finished my placement I was, like: "Yeah, we'll pay the invoice by Friday, we're just waiting for paperwork". The longer you work or the longer you practise something...you get used to it, you get familiar with the concepts.

(B7, Accounting with Economics, Middlesex, calendar year, accounts assistant, 5-star rated hotel)

Other interpersonal skills regularly cited by students included written communications generally, and more specific aspects of protocols for communicating via telephone and e-mail within a business environment.

About one third of students referred to networking skills they had developed on placement. However, as with communication skills generally, the characteristics of the networks varied: within the organisation at the same level; with more senior colleagues; with other specialist colleagues outside the organisation; with clients. A small number of students referred to deliberately networking with work colleagues rather than other placement students who were also working for the same organisation.

In [the trading firm] I wanted to make it clear that I didn't want to mix with the students.... Lots of students were, like, stick together and sat like a student group, whereas I usually break off and sit with people who actually work there because I am going to see the students probably in Bath anyway. So, what is the point of wasting my time here when I can build relationships for the future? I always think that relationships are so important in business.... At the end of the day, apart from the experience, your placement is all about getting a job...getting contacts for the future. So that's what I was, sort of, more conscious of.

(B2, Business Administration, Bath, two six-month placements (a) competitive intelligence support, large mobile networks company (b) financial support for manufacturer trading function)

But the prospect of networking did not always seem appealing, and depended to some extent on the individual student's overall level of confidence.

S: Networking – horrible word. I hated it at the beginning.... You'd just get thrown into a conference and you'd be walking around between presentations and you'd just have to talk to people.

I: why did vou hate it?

S: At the beginning, because I didn't understand my job, so I wasn't going to add anything to the conversation. Towards the end, I understood what I was talking about, so I could go with the conversation. I like talking to people, but if I don't know what I'm talking about, I don't enjoy it in the slightest. Once you understand what you're doing then you can make contacts and be useful to them.

> (B21, Economics and International Development, Bath, calendar year, assistant globalisation desk officer, government department)

These students provide contrasting views of networking. For the former, networking was about making business contacts which might prove useful for her future job prospects, whereas in the latter case, underlying the student's reluctance to networking was a sense of needing to be useful to the contacts he made (rather than the contacts necessarily being of use to him).

One aspect of communicating and networking was the discovery and experience of office politics:

Nobody can tell you about office politics but they're there. I don't care where you work, there are always office politics. I can't write them down but they are actually just there.

(T1, Information Systems and Management Studies, Leeds, academic year, PA and IT support, oil company)

This was one element of the experience of working in an office environment.

Extremely (beneficial), it's hard for me to really say the overall experience of working in an office for the first time whilst having that support of people knowing it is your first time, ... not throwing me in at the deep end. I think it ... was a life experience as well because I've gained a lot of confidence through it. Yeah, I think it's just been a really good experience of real life, after studying, a sort of look into the future.

(T6, Management Studies, Leeds, assistant in product management team, large telecommunications company)

I've also found that...you've left school and then at university, you [are] only ...around people of your own age, apart from lecturers. And it's nice to be in the workplace where everyone's a bit older and they've got more experience and just see how it works that way; just to learn before I go into my graduate job. Because I've had a year testing things out and then it gets real later.

(T8, Business and Management, Leeds, 14 months, manager/client relationships, large computer company)

When you see what it's like to actually be in a proper workplace it makes you more aware of the things you need to do... say timekeeping, when I get a real job I'm going to have to be here at this time every day.

(K4, Fine Art, Chester, six weeks, assistant to community liaison officer (art), secondary school)

Organisational skills, responsibility and confidence

Personal skills development centred around increased confidence overall and personal organisation. Taking on responsibility for specific tasks and gaining the trust of work colleagues are aspects that increase an individual's level of confidence; as is evident from our discussions, above, of how placements evolved. However, increased levels of confidence also arose from students' views that their communication skills, particularly oral communication skills, had improved.

I got an incredible boost in my confidence out of it, it's like about what I can deliver. I think the main thing is how to act and interact in a business. How to write business e-mails and approach people in a business environment, how to approach meetings, exposure to senior management is really good because that again boosted my confidence that I could speak to them and they actually take on board like what I said. It's quite scary sometimes. That was the main thing I can think of; also I was given such a high level responsibility there that I was more confident in my deliverables and in my work.

(B2, Business Administration, Bath, two six-month placements (a) competitive intelligence support, large mobile networks company (b) financial support for manufacturer trading function)

Aspects of personal organisation were developed through students taking on more responsibilities and being seen as the person 'leading' on specific aspects of teambased tasks. Students talked about the importance of good, prior preparation for meetings with work colleagues (or clients) such that discussions during the meeting were informed and fruitful: this was particularly the case where they were the 'sole' representative of a section, or attending on behalf of their line manager, and hence carried responsibility for raising specific issues and having input to discussions.

Students also talked about more mundane facets of personal organisation, for example, getting in to work on time.

... I did a lot of student things in second year and moving to do a 9 to 5 routine was actually quite difficult to adjust to: ... making sure you get to work on time.... I don't think they [people at work] understood me properly because [of]...the age difference...so they couldn't relate to some of the things I talked about. Like some nights, I would go out and get absolutely wrecked and still turn up for work next day and they wouldn't know how I did it.... But...I'm still arriving at work. I'm not bunking off work or anything, and still able to do my iob.

> (T1, Information Systems and Management Studies, Leeds, academic year, PA and IT support, oil company)

I didn't have a day off sick, so I was quite pleased with that getting into a routine and used to things.

(L5, Business and Technology, SHU, one year, trainee estate agent, estate agents)

The development of time-management skills was frequently mentioned as a benefit of working on placement.

I think one of them was get up and do work —get up and go attitude—as opposed to get up and mope around and then think about doing work. Because for that year I was getting up at half seven getting in for nine, nine to half five, so I think the time management aspect of it has definitely helped me getting up pretty early having a working day and then having the evening off has definitely helped me. Because that was how I worked for a whole year, it was pointless changing my whole routine after a year of doing it this way. That was the time management. That has been something that has definitely helped me, that will be able to help me this year. As well as working hard, it was something I had to do on my placement year was work hard, do my best; so, on the course this year as well, no use giving it a half-hearted effort.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

If I'm doing my work I don't have my music on, or I'm sitting in my bedroom, I don't sit in front of the TV to do my work. If my housemates are whistling I say 'can you keep it down' because I can't do my work, I need silence... I get up earlier to do my work. I think it's quite frustrating if I get up late because I realise how many hours I've missed in the day and what I could have done with that time that I have missed. For example, this morning I got up at 6.30, finished my assignment and did my reading.... I'm on top of most of most of my work and that wouldn't have been the case if I hadn't organised my time more

efficiently and I know it sounds really bad but you have to be really stubborn and you have to put your foot down with yourself.

(L1, Business and Technology, SHU, calendar year, marketing associate, biotechnology company)

Linked with improved organisation and communication, improved self-confidence is widely cited by students as an outcome of their placement experience.

[O]n a more personal level, because I'm so used to having to... put myself out there and just be really confident, now [that] I'm looking for jobs and things I'm much happier to go and talk to people and 'phone people up.... I'm really willing just to go and talk to people and mingle a lot more, whereas before I think I would have been more shy, perhaps.

(K10, Economics of International Development, Bath, academic year, research assistant, micro-finance firm, Zambia)

I can chair meetings and know how to control the meeting if an argument erupted; people start fighting each other, it is quite fun. I can do that sort of thing.

(K15, Computing, SHU, academic year, IT support, large bank)

I think I'm more, just more prepared now to go into work life because I know what to expect... I think, generally, I won't be so, sort of, worried and things like that when it comes to looking for jobs and getting jobs. I think when I go to, you know, interviews and stuff for proper jobs, I think I'll have that extra bit of confidence knowing I've done a year.

(T3, Information Systems, Leeds, academic year, product tester, software company)

Team working

A specific aspect of working life that we discussed with students was the nature and extent of team working. All students had experienced some form of team working, and in most cases this had been a positive experience.

Team working was very important. It was actually my first time in a proper working environment and if I ever needed help I asked and I would go to a team member. People in the team were experts, data analysts would gladly help me if I needed help.

(K23, Business and Technology, SHU, academic year, project assistant, large pharmaceutical retailer)

Although you are doing teamwork here at uni you are quite aware that you are working just with your group. Whereas when I went to [the insurance company] in the same state of mind, my manager said, "Look, you are not just part of the individual team, you are part of the whole company – you've got to get involved in everything".

(K25, Business and Technology, SHU, academic year, administration assistant, large insurance company)

..we were a team of six, there was the community liaison officer and the five of us so although we had different themes ..we were all working for the same goal at the end, and there were parts of it where our responsibilities sort of crossed and we had to...work with the other person and then we'd go off again in our own direction. So definitely working as a team.

(K4, Fine Art, Chester, six weeks, assistant to community liaison officer (art), secondary school)

There were only isolated instances of students not seeming to benefit from teamworking.

I wouldn't say there was much teamwork. That was my only downfall on my placement, I mean, I knew that anyway.... I just couldn't relate to the person [another placement student] I was working with because his way of working and my way of working were two different things...he was younger and he had different ways of doing things. He was more laid back, where I'm a person that if you've got something to do, you get on with it, get it finished.... I could have done something about it, but I just thought, "I can't be bothered" it was just easier to get on with it.

(C3, Computing and Business, Huddersfield, academic year, helpdesk, learning exchange)

Students found themselves working in teams, ranging in size from just two or three people to larger ones of six to eight. Though working within a specific team, they nevertheless were aware of how their own team's work fitted in with the work of other sections and departments. For some, there was a real sense of working towards a 'bigger' team effort, and needing to put in additional hours as and when it was needed. Two students had been involved in regular team-building events run by the organisation, and others spoke of involvement in company 'away days' where teambuilding activities had been run by outside consultants.

Even though students were (not surprisingly) often having to work with people older than themselves, from different backgrounds and with different experiences, they nevertheless realised they had to make the effort to fit-in and be a part of the team.

This kind of teamwork would be, "If my colleague doesn't turn up, what can I do to help?" Will I be able to cover for her if she's not feeling well, or if she's stuck or she's got a deadline? Will I be able to help or am I just going to say. "Well, it's not my job to do it".... The people I worked with really worked as a team... they were all older and they could argue sometimes... I didn't realise all the people, kind of, they argued and I would just be looking on. But they were all different, people from different minorities, so...personalities do clash sometimes. So, those kind of things I learned. At first I felt uncomfortable, I was like "My god, she's forty-nine years old and she's still banging on about who hasn't cleaned the tea area and stuff like that!"...I realised there were some people that were like that...vou know...they're different people, they've got different personalities, some of them get annoyed quickly and then some of them just want a laugh...the office is a place where you can have a laugh... but they need people to have a laugh and still get on with their work.

(B7, Accounting with Economics, Middlesex, calendar year, accounts assistant, 5-star rated hotel)

Students had found other members of staff helpful and supportive and recognised that good communications within teams and between teams were important to ensure common objectives were achieved. Students recognised the need to be open to other people's professional advice and opinions, even though they may not feel an affinity to them on a personal level.

Students with a range of jobs (marketing assistants, business analysts, laboratory assistants, IT support) explained how team meetings (weekly or monthly) had been important occasions where they had presented their own activities, shared their knowledge with other work colleagues, or presented their own team's work to other groups of staff. The opportunity for obtaining opinions, points of view and feedback from a range of staff, other than a single supervisor was an important characteristic of teamwork for some students.

In one case, moves towards more home working meant the office-based team environment diminished somewhat during the course of the placement.

It was very, very team based and...it was a very flat organisation as well. We had a little team meeting at least every week and once a month I would present to them and we would look at my work as a team....I got feedback from the work I had to do from a team perspectiveThe team were in the office most days. Towards the end of my placement quite a few of them actually became home workers so it was less of a team environment then, but yes it was a really good environment and there were lots of other students there as well.

(T6, Management Studies, Leeds, assistant in product management team, large telecommunications company)

In a single case, team working had not involved meeting with other members of staff face-to-face: rather, the student (working in IT) had experienced virtual team working.

Working in virtual teams, you know you read about it, but actually being in one, it's really bizarre. It's the most bizarre thing, because you're literally...you could be sat here with a laptop and you know presumably your team are sat here, aren't they, and you might e-mail, but literally my manager is somewhere else for the whole [time]; and then I had my team leader in Denmark.

(T7, Biology and Management, Leeds, academic year, distribution channel management, large computer company)

For a minority they were more often than not working on an individual basis, with only infrequent recourse to team-working.

I pretty much worked on it by myself, but there were people available if I needed them.... I was very much responsible for myself.

(L3, Geography, Chester, six weeks, nature guide, NGO)

For some, this seemed to be the nature of their job (for example, marketing assistant in mortgage company, research assistant in micro-finance company). In one case, the student thought that being the first placement student the organisation had taken on had accounted for the lack of team working. In this instance the student enjoyed 'not being checked-up on all the time'.

Overall, students considered they benefited from team working but in a small number of cases students were also concerned about their input to teams and how they were perceived by other members of staff (and how this affected the value of their own inputs).

My manager made a point of never saying I was a potential graduate. I think they presumed I was a graduate, so I got a lot more respect because of that. I

think, had they known I was just a third-year student it would have been, like, "You're leaving in a year so why should we do anything for you?"...I had guite a bit of backing from my team and my team is quite well respected ... so they did listen to what we were saving.

> (T8, Business and Management, Leeds, 14 months, manager/client relationships, large computer company)

..because I was the [unpaid] work placement student ..[but] when I got paid [for additional four weeks at end of the placement |... the pressure was just a little bit there when you're paid. And they rely on you more, although I felt a team member there, I felt that when I was there as a paid [member of staff] I got a little bit more respect, I think, from some of the staff.... Some members of staff I was fine with throughout, others were fine but they still saw me as a student. I felt that ... when I started getting paid there was more interaction with the adults; it was quite weird.

(B16, Psychology, Middlesex, academic year, learning support plus residential care assistant, residential school for children with behavioural disorders)

For a few students, good experiences of team working on placement contrasted with their rather negative views of team working within their taught programmes at university.

I've never really liked it [team work] very much. I always thought that working in a team at university...I always thought well, if someone in my group is rubbish, they are going to get the same mark as me and I have to put in, if I put in, all the effort. I don't really like university team work... I don't think it often reflects your true work, I don't know how you can be judged on a piece of work you have not necessarily contributed anything towards.... But in a work setting I think I have found how it can work well.

(B14, Psychology, Middlesex, calendar year, researcher in intelligence unit, police force)

I've realised I won't accept slacking any more, I'm afraid. I've gone into work and it's a case of if you're not doing your job you're going to be fired or you're going to get reprimanded.... Working with students [in group work] often 21 year-olds who don't have many cares...it's a case of "Your future's coming up. Sort yourself out, man!" It's a case of sitting down and saying, "We've got a job to do, let's just get it done".... You try not to lose friends, but obviously if someone's not pulling their weight you can't fire them...so you've got to find ways to deal with people [in group work].

(G5, Software Engineering, SHU, calendar year, student software developer, data processing company)

In the first and second year you do see them [other students you work with in teams] as friends but now it's more of a case of you see them as friends in your social time but see them as colleagues when it comes to doing your work. I learned that through my placement.

(L1, Business and Technology, SHU, calendar year, marketing associate, biotechnology company)

Subject knowledge

As part of the study we also aimed to gain an understanding of the extent to which students considered they had gained and developed subject knowledge and understanding during the placement. Opportunities for gaining such subject-specific knowledge varied greatly between placements, along a broad spectrum. For example, the subject-based learning gains for the accounting and finance student who spent a year with a local accountancy firm working in a general book-keeping role were rather different to those of the psychology student whose placement was basically a research assistant post engaged in researching language development and developing and evaluating methods of transcription coding systems. Nevertheless each of these students was able to articulate aspects of subject knowledge gained during the placement.

Students were able to identify both general and more specific aspects of subject-based knowledge they had gained during their placements (Table 3). Students regularly spoke of an awareness and a broader understanding of how their own specific tasks and activities fitted-in to a 'bigger picture', either within their own organisation or the industry within which the organisation operated.

Though some of the more specific subject knowledge arose from undertaking specific tasks (and on occasion was supported by particular training activities), much of the students' broader knowledge was accumulated over time as they gained more varied working experiences within their placement, and were able to draw, from those, a sense of the 'bigger' picture.

... it is that in a way that helps me understand other aspects of the bigger picture, especially when it comes to toxicology when you're assessing how the drug is going to impact: how bad effects of the drug are going to impact and to affect a large population. You do feel aspects of that in regulatory affairs. I mean, you're telling people that it is a safe drug, so if the toxicology tests aren't up-to-scratch, if they don't cover the same breadth of people then obviously you can't submit the drugs; so it does help me academically, as well.

(B6, Pharmacology and Toxicology, Kings, calendar year, regulatory affairs support officer, large pharmaceutical company)

... before it was all in books and what you read in books that's what you tend to think, and then you realise working ...[it's] not the reality.... And it's probably helped me with essays now. I look at things a bit more, with more perspective. So with regards to my subject, it definitely gave me a sort of broader sheet to build my ideas upon.

(K9, Economics and International Development, Bath, academic year, assistant, large internet company)

Table 3: programme area and subject learning

	ımme area	and subject learning						
Programme area	1_	Learning gains						
Arts and	Broad	Applicability of subject (Geography) in broader context.						
Humanities	~ .~	Making subject knowledge (Geography) accessible to non-specialists.						
	Specific	Exploration of new materials and additional dimensions (of sight and						
		texture) to artefacts (Art).						
Accounting and	Broad	Auditing processes and hierarchy of tasks; 'life of a trade' within						
Finance		investment banking. Confidence in reading figures and balance sheets.						
	Specific	Aspects of management accounting. VAT returns						
Business and	Broad	Analysis of data to support business decisions. Use of financial data to						
Management		underpin strategic management. How different functions within						
		business work together to support overall objectives. Use of value						
		chains and supply chain. Application of theories to practice (e.g., buying and selling commodities). Understanding of how actual practice differs						
		from concepts and theories (and consequences of not adhering to good						
		practice). Analysis of business activities in terms of corporate and social						
		responsibilities. Business 'know-how'. Greater awareness of cultural						
		differences relating to business practices (and role of politics in						
		business).						
	Specific	Auditing in practice (rather than theory). Creative side of marketing.						
	F	Financial aspects of company-restructuring. Legal aspects of business.						
		Negotiating within business environment. Knowledge of government						
		policies for, and regulatory aspects of, national parks. Knowledge of						
		HTML code to create web-site. Technical knowledge of business						
		products.						
Computing	Broad	Consolidating IT knowledge. Essential use of documentation to sup						
		user requirements. Enhanced understanding of networking systems.						
		Efficient and effective searching of data sources.						
	Specific	C+ programming. Extended knowledge of Java and HTML.						
g :	D 1	'Extreme programming' method of tackling software development.						
Science	Broad	'Living and breathing' research on daily basis, and gaining confidence						
		in evidence base. Better understanding of basics of scientific research						
		and difficulties associated with animal observation. Seeing how psychological theories relate to practice (e.g., behavioural disorders,						
		eating disorders). Appreciation of specific company role within						
		wider/global picture.						
	Specific	In-depth knowledge of drugs and harmful side-effects. Language						
	Specific	development and coding systems. New aspects of Parkinson's disease.						
		Knowledge of 'in vivo' biology. Greater knowledge of pharmacology						
		and respiratory pharmacology. Increased knowledge of mathematics and						
		application of statistics (to underpin pharmacological work).						
Social Science	Broad	Appreciation that practice may be very different from theories. Greater						
(Economics and		understanding of perspectives and views of different social partners						
International		(operating at different levels) relating to specific issues. Appreciation of						
development)		role of power relationships in human rights issues. Greater						
		understanding of day-to-day workings of government and processes of						
		policy formulation.						
	Specific	Impact of December 2005 tsunami on world economy. Legal aspects of						
		business. Techniques of qualitative research in the field. Understanding						
		of specific economic models (e.g., global growth models). Role of						
		World Bank in international development.						

Many students also referred to the positive aspects of being able to see theories 'come to life' when engaged in certain activities, and the realisation that actual practices (in for example, business, finance, international development) can be rather different from theories espoused in textbooks. Students involved in scientific research and laboratory work spoke of their sense of personal engagement with the issues being investigated, 'living the research' (and hence acquiring a personal construction of the

subject matter) rather than 'just' reading the information from text books. A small number of students referred to attending meetings and seminars (almost) as observers and listeners (at least in the early days of the placement) where they just absorbed new knowledge.

The vast amount of knowledge that I learned is not the text book; you're just absorbing as you go. I went to lots of seminars, which were discussions on development issues, poverty issues from different perspectives from education or agriculture or business climate and also those kinds of things that I haven't particularly worked on [in my degree]. I could absorb and take the information on, see the relevance.

(B4, Economics and International Development, Bath, calendar year, junior analyst in policy division, government department)

A small number of students also gained a sense of the provisional nature of knowledge. For example, the student undertaking essentially a research assistant job contrasted the situation of being a student, and replicating other's research with that of a researcher, investigating issues to which there is not an obvious 'right' answer; and the student working as a research analyst in a Whitehall government department acknowledged that the reports he produced were only provisional in the sense that they were as 'good' as the currently available data, but could change as more information became available.

Higher-level academic skills

Despite the positive message provided by students about their personal development and indication of the enhancement of subject knowledge in various ways, there was little indication of a feeling of having developed 'higher order' academic abilities, such as critique, synthesis or analysis. Perhaps, students were not aware of this development, maybe they took it for granted, or perhaps the placement provided so much else by way of enhancement that intellectual development did not stand out. Indeed, two students mentioned that in writing up their placement experiences for an assessed report they had indicated that analytic and critical skills had been enhanced but along with a raft of other skills. In the interviews, these students did not dwell on the intellectual abilities.

The main area mentioned, apart from the development of subject knowledge was project management. About a third of the respondents talked about developing better project management skills. Several students went on project management courses:

I also went on an Apprentice Two Project Management Course, which was really good.

(T2, Information Systems and Management, Leeds, academic year, junior software engineer, software company)

One student took on the organisation of social events in the work place, such as bowling nights and social events for up to 300 people, which developed her project management skills in an informal way through the organisation of transport, booking venues and so on; that in addition to the placement job.

Other aspects of intellectual development focused on specific abilities, such as being able to find things out and identifying core information.

I know what I'm looking for a bit better now. I think I'm...quicker at finding stuff and I'm a bit more on the ball when it comes to...picking out the most relevant stuff, because I was expected to learn quite quickly when I was down there. So it was...essential that I was able to find information quickly, find the relevant bit and then use that as a basis for my testing. So yeah, that definitely improved my ...free searching and...finding relevant information.

(T3, Information Systems, Leeds, academic year, product tester, software company)

The jobs of many of the students on placement involved considerable amounts of analysis of one kind or another.

I worked for the Tools Director, so I was doing more depot analysis, but it was more on turnover and location, so looking for where they want to go where they hadn't been before....

(K19, Business Studies, SHU, academic year, business developer, hire company)

The thing is it was a great opportunity, okay I've got all these X,Y,Z, theories in my head of how to do this and the best practices basically and I get to see in practice that okay, it's not being done, but then I also get to analyse for myself the consequences of when something isn't being done this way.

(K8, Retail Management, Middlesex, academic year, trainee manager, department story)

However, few made much of the improvement in their analytic skills. The following are indicative:

I already had the skills and abilities to communicate but I think those have developed doing PR. I think I already had, you know the analytical skills that I needed at [international charity] but they were increased through my use of their marketing tools.

(K11, Business Administration, Bath, two six-month placements, (a) PR assistant, cosmetics company (b) marketing, charity)

I'm a lot more pro-active than I ever was before which I guess is a reflection of maybe just having a year out rather than the actual placement here. Other than that, my, maybe my analytical ability just in general, because obviously that's what my placement year was, so in that way I've probably improved.

(T5, Management Studies, Leeds, academic year, marketing analyst, small firm)

I: Any other skills can you point your finger that you have developed you think? What about communications?

S: Yeah. Analytical skills, you tried to sit down and solve this issues and problems the programmer is bringing up.... [Also] writing skills trying to be diplomatic in emails/letters as well. Organisational skills, time management ...

(B4, Economics and International Development, Bath, calendar year, junior analyst in policy division, government department)

For a few, there were noticeable developments in their critical abilities and, indeed, their ability to take criticism.

So I definitely question my work a lot more and why people say certain things and how things are looked at from a different angle, which is useful in my essay writing because it makes me a lot more critical. [and] made me also question a lot more why certain people write the text books and why they're written in that manner and whether they're actually correct.

(K10, Economics and International Development, Bath, academic year, research assistant, micro-finance firm, Zambia)

I'm a lot more confident, as I said, putting my ideas forward and also taking constructive criticism because obviously within the group there are people going, "I can see what you mean but what about this?" and bringing other things in. And before that would have kind of upset me because I would have felt they were knocking me, but they're not, they're just looking at my idea from a different point of view. And, I think, being out there in the situation you couldn't really fall out with them because you're living with them.

(K2, Biology, Chester, six weeks, whale researcher, natural history foundation)

Another thing was learning to take on board criticism because a lot of our work, people came back and said, "I don't think it works like that" or "You can do better" or "I don't agree with you". Some people would be really quite harsh and they really, like, have a go and we get some nasty e-mails from people.

(B2, Business Administration, Bath, two six-month placements (a) competitive intelligence support, large mobile networks company (b) financial support for manufacturer trading function)

Apart from one comment on the synthesising of bacteria, respondents did not mention synthesis as such. However, 16 respondents alluded to their ability to pull things together, make connections and relate to other knowledge.

I was quite ashamed at first because it was knowledge I had but I had to, sort of, like find it and apply it in a different way; so I learnt how to use my subject, I think, rather than learning more about my actual subject, if that makes sense?

(K3, Geography, Chester, six weeks, classroom assistant, high school)

Instead of going, "Oh my God in order to do this I'm going to have to read twenty references and analyse how they all refer to this thing", now it's like, "Oh, I've just got to read the reference and see how they come together, kind of thing" and it's just, sort of, you do it time and time again.

(K7, Pharmacology, Kings, academic year, laboratory researcher, large pharmaceutical company)

... I have seen and learnt different areas like marketing, sales, legal all the departments in work. Now I can see how everything fits together. How it all works together. Before I think marketing bit as they just do the website, and something like that. It makes you appreciate what is an organisation and how everything fits together.

(K24, Business and Technology, SHU, academic year, marketing assistant, large firm)

... in the lecture, I understand what she is saying more, for example, a couple of weeks ago we had a lecture on the psychology of police investigation and I knew exactly what she was talking about, and also there was a question she asked the group and everybody went one way, except for me and I thought that is not right, I could relate to it, to what I had done, to be able to answer the question correctly.

(B14, Psychology, Middlesex, calendar year, researcher in intelligence unit, police force)

Ethical issues

Consideration of ethical issues relating to work was a further dimension of knowledge gained, mentioned by a quarter of students interviewed. The issues fell into three main clusters.

First, for those doing research (either in the field or in a laboratory setting) ethical issues arose in relation to the following issues.

- Government guidelines for observing mammals in their natural settings: a student involved in a whale research programme realised that occasionally the observation boat was spending too long in the whales' (and dolphins') vicinity, and hence contravening guidelines. This heightened the student's awareness of ethical issues more generally and will inform her own approach to future research work.
- The general public's and media reaction to 'in vivo' research, and the need for a deeper understanding and exposition of the scientific rationale for such research to set alongside other, more publicised counter arguments.
- The regulatory aspects of developing, testing, and marketing new drugs in a variety of different countries, and the need to meet stringent international standards of safety and efficacy.
- Researching (in rural Zambia) low-income families' financial status on behalf of a micro-finance business:

one of the really large things was trying not to raise...unwarranted expectations because you were seen to be an expert, and because I'm white as well, your status is so high if you go into a rural area... I mean you're doing research so it might help them but it might not and they...think that, "Well, they're asking us about money, they're going to give us a loan and that will be great...we won't be poor any more." So that's quite difficult, hearing people telling how much they value what you're doing for them and [you're] actually thinking, "We're actually probably not doing that much, it's just the basics".

> (K10, Economics and International Development, Bath, academic year, research assistant, micro-finance firm, Zambia)

Second, ethical issues in relation to more general aspects of business and finance arose in the following ways.

- The efficacy of providing loans to people living in areas (in Zambia) where the incidence of HIV/AIDS is high, and the innovative methods of arranging loans for funerals.
- The extent to which retailers that espouse aspects of corporate responsibility are themselves required to meet demanding criteria set by suppliers.
- The need for client confidentiality and the importance of secure data bases containing highly sensitive personal and corporate information.
- Specific aspects of client and victim confidentiality in relation to police work (both crime scene investigation work, and logging/researching crime reports in relation to sexual assaults).

Third, ethical issues affected some students in a rather direct way, including the following.

The student whose motivation for hard work was compromised by what she saw as the futility of promoting and selling yet more luxury cosmetics (with the prime purpose of making a rich family-run business even richer). The student

deliberately chose a second placement with a charity, whose mission she believed in.

[The Charity] in particular increased my passion and my belief for fair quality, fair trade, for environmental practices...that's kind of reinforced my belief in what I'm studying...we can't have all companies being NGAs [non-governmental agencies] but we need...other companies to behave in a responsible manner, and I think it's important for them to have people inside them who believe that.

(K11, Business Administration, Bath, two six-month placements, (a) PR assistant, cosmetics company (b) marketing, charity)

- The student who considered it 'unfair' that she had to complete her laboratory-based report (on drug development) for the company before completing her placement (unlike her fellow students) and the subsequent acceptance of the company's position (given intellectual property rights and legal aspects of patents).
- The student who experienced harassment from her boss; the student who experienced sexism in the workplace (being given what she considered menial tasks whilst a male colleague was given more interesting tasks); the student who felt other members of staff joked about him because he was a student, but who found it difficult to know how to approach the problem.
- The moral dilemma faced by the student who undertook an unpaid placement in a drug therapy clinic (for four days/week), whilst continuing with her paid job as manager in a betting shop (for the other three days/week) and in that capacity was responsible for evicting drug users from the premises:

I do still empathise with the fact that they are addicted to that but, at the same time, I think the fact that I might lose my job is a bigger concern for me rather than, yeah — I think I feel that I have to do that otherwise I won't have any money...it is a sort of moral dilemma but I think, I kind of see them as two different sets of people for some reason when I'm in [paid] work and when I'm out of work, so I don't know.

(B15, Psychology, Middlesex, academic year, charity)

Some of the ethical and moral issues highlighted above point to students' growing self- awareness, and establishing or revising their own values.

Overview of personal development

Clearly, personal development is a major element of the placement experience and one that the students can identify. Staff, too, see significant changes in students following the placement.

Students returning from placement tend to exhibit better time management skills, report writing skills etc. and are more focussed on their studies and often have a clearer idea about the sort of jobs available to economists. And have a better idea of the type of job or organisation they do, and do not, want to join on graduation.

(B26, Economics tutor, Bath)

One of the questions I always ask my students is, right, "This is you, now, doing this presentation and, in the far corner, is you as you were last year; what's the difference?" And they always say, "Just much more confident." It's a mood and an attitude and it translates into what they do, how they do it, how they speak. That they ask questions, particularly in the final year when you are actually doing lectures, they are very different. They will actually ask questions in lectures; they are involved. They will have discussions in the final-year lectures. The vast bulk of my teaching is in first and second years [but] I once got invited to do a couple of guest lectures on the final year and I was really shocked at the difference. They [the students] are much tougher, it's like a toned up athlete as opposed to being...flabby: they have a very strong mental muscle, mental attitude.

(G6, Placement tutor in computing, SHU)

However, for students, the emphasis tends to be on the development of their confidence and interpersonal skills, their organisation and time-management rather than their intellectual development. They note an enhanced understanding of the subject, mainly because they have seen theory in practice or because, of necessity, they have learned how to seek out information and assimilate it quickly. They do not, though, describe this, in the main, as being more analytic, critical or synthetic. They are more self-aware and perhaps self-critical, in the sense of having discovered how to take criticism, and more aware of others and how to work effectively in teams made up of diverse members with different strengths.

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CHAPTER 7: FUTURE INTENTIONS

A small number of students in our sample were continuing to work (on a part-time basis) for their placement organisation during the final year of study, with the intention of becoming a full-time employee once their final examinations were completed. Although these students had had no definite job or career plans during the second year of study, their positive experiences during their third year, out on placement had informed their decisions to continue working in a particular area, at least for the immediate future. Examples included the business technology student who had completed a placement with a stockbroker, was continuing working for them on a part-time basis and was also taking relevant, industry-recognised examinations and the psychology student who had secured a placement with a police force working as a researcher in an intelligence unit and now had a part-time employment contract (with the same unit), which would become full-time in due course.

We should note that such continuing part-time working was, to some extent, enabled by the fact that, for some students, the taught elements of their programmes seemed to be timetabled over three (or fewer) days of the week, hence allowing 'space' for other activities. These activities were not necessarily directly related to their final year studies.

A further six of our interviewees had already been offered (and had accepted) places on graduate trainee schemes, or professional pathways with their same (or similar) placement organisation. However, they did not all work for the organisation on a part time basis in the final year. Indeed, for many students, the final year was a time when they decided to focus more on their studies and reduce or quit part-time work.

- S: This [the final year] is the first year I'm not working part-time.
- I: Was that a definite decision?
- S: Yes, because I knew I had a lot of work...especially my first semester because most of my course units were in that semester so I've got course work to hand in for almost every week. And, then, next term I start on my lab work and then I've got my exams, so there's nowhere I could have fitted-in having a part-time job.

(B6, Pharmacology and Toxicology, Kings, calendar year, regulatory affairs support officer, large pharmaceutical company)

In the vast majority of cases, the placement experience helped inform the other students' future intentions in the following ways: previous ideas and plans were confirmed, new areas of interest within the broad subject area were opened-up, specific areas of work were rejected, future career plans were changed completely.

So it's definitely helped me. You know, I was so convinced when I was younger that I wanted to be a teacher. I was really surprised, it was really different from what I expected.... And I just learnt that it really wasn't for me.

(K1, Fine Art, Chester, six weeks, classroom assistant, primary school)

Frequent comments suggested that the placement had motivated students to work hard and get a good degree to enhance their employment prospects.

I have no regrets about it. I think it's good because it made me think about my career and the direction I did want to take, and I think it made me a lot more focused knowing that these are things I have to do once I leave university. So while in university [now] I'm more focused on obtaining my 2:1 or first, in order to get a good job.

(B6, Pharmacology and Toxicology, Kings, calendar year, regulatory affairs support officer,

In only one or two cases students were still unclear about what they did (or did not) want to do on completion of the first degree.

For some, the value of the placement was a feeling that they had experiences they could use when seeking employment, even if they did not consider the experience particularly developmental.

When I go to interviews after I graduate I will be able to say, "These projects, I took the leadership role and I did this and this," ... "These problems I got into." That would be really good. When I went for the placement interview I didn't have anything to say, pretty much two examples. That was it.

(K15, Computing, SHU, academic year, IT support, large bank)

I've been involved in everything from planning lessons, to trips, to admin...and I've experienced teaching right from Year 7 up to Year 11. I reckon that will stand me a lot, put me ahead of a lot of other people.

(K5, Geography, Chester, Trainee Teacher, secondary school)

I think, mainly, it was a break from studies and also for my CV, but the actual experiences and whether it's taught me a stronger work ethic is at the moment more debatable. I needed it for my CV really because my A-levels were relatively poor. I barely got into Leeds University, that was my insurance.... And if I come out with a 2:1 in Business Studies it's pretty much that you need something to stand out. So I did it more for my CV than the experience that I gained. So I think that it would get me interviews just having this to make me stand out.

(T5, Management Studies, Leeds, academic year, marketing analyst, small firm)

A small number of students planned to continue with further study in a related subject area (via taught Masters, or PGCE) or further research work in related areas (via PhD); the latter option being seen as offering greater intellectual freedom than might be possible if the research work was based within industry.

A further ten students were looking to find employment similar to their placement work (at least initially), be it the same type of work or same type of organisation. This was mainly in the logistics and computing and software areas. However, for one science student, a year's work in a pharmaceutical company's laboratories had confirmed a desire to continue with laboratory-based work. Two accounting/finance students had enjoyed placements in small companies (working in small teams, but interacting with many other staff in the same organisation) and intended to find employment in similar smaller companies that would also offer opportunities to study for professional accountancy examinations, and one business studies student was keen

to return to work in the public sector, where she argued 'you are working to help other people, not just take money off them'.

In a large number of cases, the placement experience had changed students' views of the type of work they should try and secure, on graduation. In many cases, this change was the result of the new areas of interest (linked to broad subject area being studied) being opened-up during the placement. For example, the placement experience had made several students realise that, in the future, they would want a job related to their area of study that involved contact with people/clients on a regular basis. This was the case for both science students who had decided, as a result of their placements, that they would be looking to move into careers where they could apply their scientific knowledge in a more direct way in practical or clinical situations and impact on people's daily lives. Similarly, some students whose placement had been on the technical aspects of computing, were now looking to move, on graduation, into the teaching-side of IT.

For others, it was a case of now realising there were certain aspects of business that they did not want to pursue. For example, one student realised she no longer wanted to move into marketing but would prefer a more analytic or financial role. For another, disillusionment with her first placement experience (involving PR and marketing) had led to her seeking a second placement with a national charity, and a realisation that she wanted to move into the corporate responsibility side of business.

For some computing-related students, placement experiences had helped create new areas of interest, for example, the multi-media students who were looking to move into digital marketing; the software engineering student who planned to find employment involving software installation, rather than building software; and the student who was going to move out of software games development to undertake more challenging tasks involving applications programming.

Originally, when I was at university, it was games — games development. But I've realised that it's not testing enough and I think applications programming is far more interesting and far more difficult because you don't know what's coming next. You're at the whim of what somebody wants: you don't have a specific guide.

(G5, Software Engineering, SHU, calendar year, student software developer, data processing company)

Psychology students who had chosen to do a placement had developed different areas of interest, as a result of their unpaid work: for example, a desire to work as a drugs key worker, with young people rather than adults; a new interest in the behavioural aspects of eating disorders though, within the taught programme, the student had previously focused on criminology.

For those students whose programme had included two six-month placements, there was an intention that students would seek out two different placements, and thus gain wider experiences. For some, experiences within the first placement had persuaded them to seek out a very different second placement (and in a small number of cases, where students' placements had been curtailed because of re-organisation and downsizing, students had undertaken a short third placement). Such variety of placements certainly provided these students with a range of experiences on which to reflect when thinking about future career trajectories, even if the placements themselves had their drawbacks.

... if I hadn't done [the trading placement] I wouldn't even consider finance. whereas I have actually considered [it] though I haven't followed it through.... In terms of what sort of job I wanted to do, the main thing to decide is routine or project ad-hoc work, which is so different ... [and] was so different between placements. The [manufacturing company placement] was very routine and the same everyday, just different numbers, whereas [the mobile networks company] is very much a completely different project each week almost, with a few routine things. [At the mobile networks company]... we were dealing with technology, which I had absolutely no idea about.... I felt very much out of my depth at first.... I think it was literally a month before the end, I started to feel really comfortable with what I was doing.... I have accepted a job [on graduation] with [a telecommunications company]... doing project management in innovation ... which is very similar to what I did [at the mobile networks company]. It involves understanding of technology, a lot of project based work, ... I don't know how I would have decided if I hadn't done the placement. (B2, Business Administration, Bath, two six-month placements (a) competitive intelligence support, large mobile networks company (b) financial support for manufacturer trading function)

For a small number of business students, their placement experiences had made them realise that business *per se* no longer appealed to them, and they were now planning on re-training in law, once they had completed their first degree (even though law had not been part of their initial plans).

I never really thought about going in to law.... I knew quite lot about investment banking...the work that I'd heard my boyfriend doing, I sort of thought it was interesting. I thought that might be what I wanted to go into for a long time, but then having done this finance job, I really didn't enjoy it.... It's just like working with numbers is just not me. But until you've actually done that, you don't really know. I'm a firm believer that until you've actually done a job, you don't really know what it entails.

(K12, Business Administration, Bath, three placements in a year (a) recruitment assistant government department (b) admin. assistant, large computer company (c) admin. assistant, law firm)

This realisation of what a job entails had persuaded several students that their future interests lay in doing project-based, management consultancy style work (and getting out in the field, rather than being office-based). Some who had experienced central government, policy-related activities were now seeking more hands-on roles where they considered they could have more direct impact. And finally, a minority were now committed to trying to set-up and run their own businesses.

I was expecting to sit in an office working for somebody whereas now I'd like to set up my own business: a mortgage brokerage. Set up on my own doing the mortgage side of things having seen what I did in my year so I got a good insight into a different industry.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

CHAPTER 8: GOING BACK INTO THE FINAL YEAR

A key area of concern was how students related their experience back to the final year of their course and, linked to that, how they adapted back to final-year student life. In this section we consider whether and how students' approaches to learning changed as a result of their placement experiences, how they relate to other students and whether and to what extent they were able to build on their subject knowledge in later stages of their undergraduate programmes. We must acknowledge that the timing of the fieldwork for this study (from early November to early December) meant that some students felt they were only just getting 'back' in to their final year. Often replies to specific questioning about building on subject knowledge indicated that they might be doing a relevant taught unit in the next semester, rather than current one, or that the choice of units was quite tightly prescribed and so opportunities for linking units to broad subject areas relevant to placement activities would be limited.

Nevertheless, students were able to reflect on their placement experiences and relate them back to their ongoing course.

In the main, we allow the students to speak for themselves in this chapter by providing indicative quotes that demonstrate the range of ways students consider they benefit academically from their placement experience.

Approaches to learning

Many students explained how their approach to learning had evolved. The following is a small selection of the impact of the placement experience on attitudes and learning behaviour:

My approach to work is very, very different now and, I mean, just things like getting references and reading and even though some days I have lectures and some days I don't and some days I'm in half days, I do tend to work a lot more as if I was nine to five, sort of thing.... I don't know, you just get out of the habit of being able to sleep in all day! ... I'm a lot more confident with statistics just because I've been using them day in, day out.... For instance, we had an assessment earlier this term where we were given data from an experiment and we had to process it ... But actually you could have done that experiment every day for three months and by the end of it you'd be able to do it so much quicker and just sort of look at the data rather than having to look at the data and think, "erm". It's not just, like, I'm just walking straight back in my course and going, "Oh I know that, I know that, it's boring", sort of thing. I think...the skills I picked up over the year have made me more able to cope with it.

(K7, Pharmacology, Kings, academic year, laboratory researcher, large pharmaceutical company)

For the final fourth year it makes you more mature after working full time solid for a year in a business environment. You are ready to do some work and I think you will do well.

(L5, Business and Technology, SHU, one year, trainee estate agent, estate agents)

It's, sort of, made me raise my expectations of myself as well, because I've been pushed so far in such a short period of time that I just know that actually I won't break and I won't snap...that's something I took away [from my placement], I learnt a lot about myself.

(B17, Psychology, Middlesex, academic year, research assistant, university department)

I understand and I listen. I listen a lot more in lectures than I used to do in my second year and I attend my lectures a lot more. I know for a fact that I'm going to do well because I listen now.... I must admit I was a lazy student in my second year so the placement's...moulded me into, like, I want to get my degree done, I want to get out there and I want to work and I want to earn some money.

(C10, Interactive Multimedia, Huddersfield, academic year, web designer, large pharmaceutical company)

I think, in my second year, I probably felt a bit more, "Err, I don't know how to do this." Whereas now, it's like, I think, "I don't know how to do that, I'll go and...." I know I can go and find out about it or I know I can go and learn about it. So I'm not so worried about learning new stuff because I've had to do it for...a year solidly.

(T3, Information Systems, Leeds, academic year, product tester, software company)

The time planning — it just means I'm obviously going to plan what I'm doing and when I'm going to do it, and hopefully, have things done way before the deadline, so I'm not under as much pressure.

(L6, Business and Technology, SHU, one year, stockbroker's assistant, stockbroker)

But having been on placement and being so used to doing work all day every day I think it has definitely changed me. I'm a more relaxed and sensible person. As opposed to going out a lot I sit in and do work, so it's definitely changed my perspective of the fourth year. I knew the fourth year was important but I didn't think it [the placement] would have changed me as a person as much as it has done to be motivated to do the work.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

I've just come back to Uni more determined and I'm wanting to learn. For the first two years I was just, like, I'll do it, but I'm not really interested. But I've come back seeing how it works in business and I'm thinking of more ideas and that, so it is definitely beneficial.... I wouldn't have looked at the company, but I would have looked at the information and gone, "What does that mean, management strategies?" And I've looked at that and I think, "Oh yes, that does sound right". And then like yesterday we were researching and another person in the group said, "Where will we find this?" and I said, "Look in the annual accounts" and he went, "Oh yes, okay", and he did, and he found it.

(K19, Business Studies, SHU, academic year, business developer, hire company)

Other thing I noticed in my final year that I am really taking completely different approach to learning now. I am challenging everything here because I now have the experience almost all the research I have done now, I have quite active mind and quite aware of everything. While I was on placement, I was always thinking about what it means, what it means for my degree.

(B2, Business Administration, Bath, two six-month placements (a) competitive intelligence support,

large mobile networks company (b) financial support for manufacturer trading function)

The chap that lectures us is ... says all we are taught is main stream economics and he likes to be a bit of a radical and, maybe a year ago, I would have said the same thing as I was reading similar books. So, I don't know if I've been indoctrinated with government line thinking. I hope not, but I certainly question what he says in the lecture and that probably comes from my work at the Treasury.

> (B19, Economics and International Development, Bath, calendar year, research analyst, government department)

Enhanced understanding

For some students the impact of the placement has been substantial, not least because the work experience has enhanced understanding.

[I understand] all the processes you have to go through from collecting all the evidence, where it goes off, if it goes off what lab it goes to, coming back, all the administrative work. I know all the processes now so if I talk to anyone I know what I'm talking about as well, so it has made me feel better about my course and things really. ... So it's more background knowledge of things I can put into essays just when I read through books and talk about visiting a crime scene and the people that have to be there I know how it works now, I've seen it so it makes me envision it a lot better

(K14, Forensic Biology, Chester, six weeks, forensic assistant at a police HQ and CSI assistant)

They used to be just like stories in a way when you read the text books. Now I can relate. I can read a case study and I can see why they are doing that, as opposed to that and relate to my experience. So yeah, it does seem a lot more real, because I've been in a similar situation I can see it from a work perspective rather than learning.

(L7, Business and Technology, SHU, academic year, marketing assistant, mortgage company)

Everything I do in my final year seems relevant now. It really does seem like it's all fitting together now. Even one of my modules is pretty much tracing over what I did at [the bank].

(K15, Computing, SHU, academic year, IT support, large bank)

I'm probably going to draw on my experiences, yes. I think it would be pointless not to. I've learnt so much; why not use it? You can read all the theories in the books, but if you can't apply it then what's the point of it? It makes you think, "Hang on, I've seen that in action, I've seen that being used," and it makes you understand it a lot more because you've actually seen it first-hand. So, that's quite good and you can get to grips with things you're learning because you've actually seen it.

(G4, Business Studies, SHU, calendar year, trainee auditor, accountants)

For one psychology student, the placement provided an understanding of research.

I took so much because, as I was pointing out before, the research that's done in the university setting as a student is just, it's nothing, and it doesn't, sort of, reflect at all what real research is about. I think that what I've taken away is a

better understanding of what research is about and what the point of it is really. I think it's hard to really see the point of doing all this research if you're just repeating what someone else is doing, but when you're repeating someone's research for a reason, to, sort of, validate a newer bit of research, then I see the point, because then you're making a point really that's moving forward. I think what it showed me a lot is that research is actually forward moving and that's it's not static, it doesn't stay in the same place and that it's constantly changing.

(B17, Psychology, Middlesex, academic year, research assistant, university department)

Assessed work, taught sessions and group working

Several of our students made a point that they could add in their experiences of work to seminar discussions and assignments:

...and then I can talk about my own experience. So yeah, you will see one third of that chunk of that essay about my own experiences.

(K8, Retail Management, Middlesex, academic year, trainee manager, department story)

In my work I question things a lot more. In lectures, for example, if a lecturer says something I'll say, "Well actually I didn't really find that, could you expand on that a bit more?"

(K10, Economics of International Development, Bath, academic year, research assistant, micro-finance firm, Zambia)

I've just done an economics essay, which I believe is to a good standard, I hope it is, and ... it's to do with a market within transport and your view on ...what type of market structure it is. I've done that essay on chilled distribution, based on the knowledge that I gained on placement.... So, the skills have been transferable,

(C4, Transport and Logistics, Huddersfield, academic year, traffic office, logistics company)

For others, the placement provides excellent material for final-year projects

I plan to do my dissertation based on out sourcing and I'm hoping to go back and interview some key [computer company] people. [The pharmaceutical retailer] is going to be one of the case studies, and I'm going to use [supermarket chain] which had it's own outsourcing project, which didn't turn out to plan, and have another look at [pharmaceutical retailer] and how it's worked and how it's worked to plan and bring in [computer company] who manage all the hardware.The PC's and the tills in store are XXXX-owned; they designed the software, and outsourcing has been a big topic in some of the modules: Business Solutions [final year module] looks at outsourcing.

(K23, Business and Technology, SHU, academic year, project assistant, large pharmaceutical retailer)

...the technology I used on placement to develop the system...I will be using in my final year project. That's my big benefit and its, sort of, a new technology which enables me to have an approach, kind of, different from the rest.

(G2, Computing, SHU, calendar year, computing engineer, pharmaceutical company) It's the case that I've been working with these things now, so I'm almost ahead of what we're learning at university, so it's really contributing to what I'm doing on my dissertation because of the areas that I've been in and I've actually researched and investigated into these new technologies that are coming out and

how they are actually used. The good thing is I've worked with them in an actual business environment.

(G5, Software Engineering, SHU, calendar year, student software developer, data processing company)

Before you go [on placement] they [the tutors] say...those who do a placement, their dissertation marks seem to be better, because obviously they have had a year to work around it.

> (B19, Economics and International Development, Bath, calendar year, research analyst, government department)

A member of staff at one institution stated that placement students tend to have good results in their final awards.

People who've done a placement are coming out with very good classifications.... It's very rare that somebody comes out with a bad mark on placement, we generally say to them, "If you do a placement and do two good assignments you can bump yourself up a grade in your classification." You go out on placement on a 2:2 and you come back and that year counts towards it and you can be on 2:1 into your final year.

(C16, course leader in computing, Huddersfield)

For some, the placement has provided an awareness of how to enhance working with other students, especially in group-work situations.

I've realised from industry that you can be assertive in a way that's not offensive and I've learned how to deal with group situations, specifically problem situations, in a better way. Currently, the groups that I'm working in at university don't have any problems, things are running as they should be and it's a case of building the management around them a little bit but being very careful how that works. You're always going to have someone in charge that's not the same ... as me, but if you have somebody in charge who's mature enough to understand where the direction is and that's something I really learned on placement is that you have to have direction. People need direction. If they don't have that they start foundering and things go awry.

(G5, Software Engineering, SHU, calendar year, student software developer, data processing company)

I like working as part of a team, but I did get annoyed because ... I don't like people taking credit for things I've done, I'd much rather they do it themselves or work together. This year I'm just, like, fine, I don't mind. I'll do the work. I want to get a good degree mark. If you just want to coast on the back of it, that's fine, but at the end of the day you're going to get caught out in your job or whatever because you're going to be not joining the team. So it's up to you, if you want to keep on doing that, but at some point you're going to get pulled up on it.

> (T8, Business and Management, Leeds, 14 months, manager/client relationships, large computer company)

I've come back and occasionally I want to shake some of the people that I'm in lectures with because they're just, sort of like, "What? We have to read another reference, other than the paper we've been told to read?" And it's just, like, "Well, yeah, there's a new paper." But they're just like, "What we have to go

and look it up and read it all?" ... Things that seem a big deal, if you haven't done a year in industry, just become second nature; you just do them.

(K7, Pharmacology, Kings, academic year, laboratory researcher, large pharmaceutical company)

What many of the above quotes point to is students becoming more actively engaged in their learning, as a result of their placement experiences. Where the placement was compulsory part of the programme, some students commented that tutors expected them to draw on their placement experiences to illustrate and explore themes being addressed in coursework assignments.

However, even without that explicit expectation, we see students not only talking about an enhanced understanding of their subject and how it fits into a broader 'picture' but a willingness (and expectation also) to draw on wider literatures and not 'just' rely on resources and materials provided by tutors. Students perceived they were more focused on their studies, and in a sense adopting a more mature and independent approach to learning. Many were also now much more prepared to question and challenge information being conveyed in lectures.

S: I've taken International Trade before [the placement] and not really been able to set it in context or fully understand everything that's going on, but having seen it for a year taking place and looking at policy, then it's far more interesting. I just sit there and I go, "Oh yes, I understand that", and not only do I understand it, I go, "Those figures look wrong...how did they gather that data?" because I've spent a lot of time looking at data, so I understand the methodology behind figures, so I look at figures now and I go, "How have you made those? I think you're missing a few variables, I don't think they show what you claim they show."

I: Would you have done that questioning [before?]

S: No, I wouldn't have questioned it. University's supposed to teach you that...university's supposed to get you to go out there and explore the data, but I feel it's the workplace that taught me that.

(B21, Economics and International Development, Bath, calendar year, assistant globalisation desk officer, government department)

Not useful

There were a handful of respondents who were ambivalent about the academic benefit of the placement and focused solely on the personal development aspects.

It is more of a personal development I had rather than academic development, really. I don't think I would say that it is not going to help me with my course this year. I know from experiences of other people, different placements have helped other people in their work. Mine wasn't it. It was quite unfortunate, thinking of mine, it was good experience as a person but not for the degree.

(K13, Business Administration, Bath, two six-month placements (a) confectionary manufacturer (b) PR Company)

...leadership, management, planning and communication skills. It's something that helped me to understand it. It is hard to come together as a team and you need to keep those four things in mind to work as a team. I think professionalism and communication skills are the main things that were brought

out in placement that are useful for the final year. It wouldn't necessarily be the technical side of it.

(K16, Computing, SHU, academic year, IT support, chemical firm, Europe)

Finally students pointed to other drawbacks in taking the year out, although, again, these didn't outweigh the benefits.

I know this drawback seems a bit silly but I didn't graduate with half of my friends. When I came back for my fourth year I found it very difficult mixing again, making new friends and obviously we have to do group work. I, kind of, found it, like, a set back because the other time, all the people I knew in the first year who were, like, every time they gave group work we always stayed in the same group because we knew each other and we trusted that, "You're not going to let me down, you're going to work with each other."

(B7, Accounting with Economics, Middlesex, calendar year, accounts assistant, 5-star rated hotel)

I've gone worse...worse in academic terms. When I mean worse, I mean grade wise. I'm still glad I did it because to be honest I'm averaging 65 at the moment and yet I suppose if I didn't take the placement year I might have been able to push it for a first, but I doubt it, because I think biology quite skins you. Management seems to give quite a few out, but biology they don't give them out really. So I suppose...it might bring my average down but in the end I probably will get a 2:1. So, when I say it's been worse academically, yeah, I think it will make my average lower than it could have been. But in the end it's still beneficial.

> (T7, Biology and Management, Leeds, academic year, distribution channel management, large computer company)

Yes, coming back to finish a degree that I don't really have as much interest in as I did. I'm finding it very difficult because when you are in the work environment everything you do has a business impact. You could be losing them thousands just by sitting there for ten minutes doing nothing so, you know, it's the kind of thing where you come back and you start questioning everything, you know, like, "Is this for me?" And, you know, sometimes you might be given a project to do and they're like, you know, "We don't want you to worry about the final outcome, we just want you to be creative", and you're like it sounds great but in a working environment if the customer wants a solution you can't worry about being creative, you've got to produce something.

> (C1, Multi-Media, Huddersfield, calendar year, technical support and events management, large software company)

...when I first came back I found it, I don't know, difficult to get motivated sometimes. I mean I'd sit down to do some work and I just...couldn't be bothered to read it....I was quite motivated (before) but I think coming back here it just, it took me a while to get back into it again, just ..into the student life and going to lectures and then, ...when they're finished and you come home, having to start work again on an evening, which I never used to have to do at

(C13, Transport and Logistics Management, Huddersfield, academic year, shipping worker, small firm)

CHAPTER 9: CONCLUSION

The bigger picture

While this study was being undertaken, a separate analysis of HESA data on students 'out' on year-long, or six-month placements, in any one year was being carried out as part of an internal enquiry by HEFCE officers (see Annex for details).

The data analysis shows that since 1999, the sandwich student population has been declining in relation to overall undergraduate student numbers. In 2004–05 sandwich students accounted for just over seven per cent of the UK undergraduate population (compared to more than nine per cent in 1999–2000). There has been a steady decline, in first-degree students taking-up placements in any one year in both pre- and post-1992 universities. The overall numbers have fallen by a third since 1998–99: from almost 29,000 to 20,400 in 2004–05. However, the largest part of this decline has been in the post-1992 universities. This is perhaps surprising given that sandwich degrees were once seen as a distinctive characteristic of undergraduate provision in the former polytechnics.

As we have noted earlier in our report, in a number of cases, the placement element is (now) optional and some staff in some of our case study institutions reported decreasing numbers of students opting to do placements. In other institutions, it was clear that sandwich placements were still a compulsory element of the first-degree programme and, even where it was optional, the majority of the relevant cohort chose to undertake a placement. Such findings serve to strengthen patterns of increasing diversity of student experiences amongst the UK undergraduate population

There have been one or two recent studies that have investigated the decline of placement take-up amongst certain groups of students (see, for example, London Metropolitan University, 2004). Such studies point to a cluster of reasons why students might now more readily opt 'out' of doing a placement. Further, the difficulties of securing suitable placements for the ever increasing numbers of students entering higher education should not be downplayed.

However, given the tangible benefits that students gain from placements (as demonstrated by this study) it would indeed be unfortunate if those benefits were increasingly more likely to be available to certain students (and less likely to be available to those who arguably might derive even greater benefit).

Building on learning from placement

Our study set-out to explore first degree students' perceptions of learning from work placements, investigate whether and how students are able to build on that learning in subsequent stages of their degree, and how that continuing development is facilitated back at the university. We were also interested to find out how students' values and ethical positions might be developed during placements.

From interviews with some eighty students (from seven different universities, and studying a range of different programmes) who had undertaken work placements, it is

clear that students continue to draw very tangible learning gains from work experiences planned as part of their overall programme.

For many of the students in our sample, the possibility of gaining experiences of work relevant to their first degree was one reason for choosing to do that programme in the first place. For a significant minority of our students, work placements were not a compulsory element of their course but they had nevertheless opted to undertake one.

As can be seen from our report, the placements undertaken varied considerably in length, size and type of placement organisation, as well as range and complexity of work activities undertaken.

Not all students in our sample viewed their experiences as wholly successful, but for all, the positive aspects outweighed the negative ones, and none now regretted having undertaken a placement. Further, it is clear that the majority of students were aware that, regardless of the actual job of work being carried-out, the personal and intellectual development they were able to derive from the placement period depended, to some extent, on what they were prepared to put into it. In a significant number of cases, students indicated that they had been prepared to undertake a wide range of tasks, take-on greater responsibility or take the initiative and 'grow' the placement by seeking-out opportunities to gain more responsibility. Of course, not all placements afforded such opportunities, particularly those of a short duration.

Personal development is clearly a major element of the placement experience. In interviews, students were well-able to articulate their sense of increased confidence, and development of interpersonal skills, and their sense of now being better organised and having good time-management skills. Many also recognised they had developed their capacities to manage projects, in the sense of planning and managing their own and others' inputs to particular tasks over a period of time. Their increased levels of confidence seems to derive from a blend of different experiences: through having sought and taken on responsibility for specific tasks and projects within their job, and acquitting themselves well; through a realisation that their communication skills had developed to a level where they felt comfortable communicating with people of different ages, interests and levels within and outside the organisation; through a more informed sense of how generic skills can be applied to a variety of working situations.

They are also more self-aware and perhaps self-critical (in the sense of having discovered how to take criticism) and more aware of others and how to work effectively in teams, made up of diverse people with different strengths and outlooks, to achieve an objective within a fixed timescale.

Intellectual skills development can be seen as the development of higher-level academic skills (of, for example, analysis, critique and synthesis) linked to increased subject knowledge. During the interviews, students put less emphasis on these aspects than on personal development. However, when questioned further, the majority were able to cite examples of both general and more specific aspects of subject-based knowledge they had gained during their placement (Table 3 above refers). Moreover, most now had a better sense of how their studies might fit into the broader picture of working life. Many spoke of the positive aspects of being able to see theories 'come to life', linked to their 'lived' experiences of trying to use prior knowledge in work

situations, which are often much messier and more complex than the ideals portrayed in course materials and texts. But against these learning gains, there seemed to be little indication of developing their academic abilities of analysis, critique and synthesis. To some extent, their comments showed improvement in these intellectual abilities, most jobs at least involved a considerable amount of analysis, but the respondents tended to take such improvement for granted.

A significant minority of students had also gained knowledge of, or become aware of, ethical issues relating to research specifically, and to business and finance more generally.

Notwithstanding the seeming lack of articulation of intellectual development, the overwhelming majority of students perceived positive changes in their approaches to study, as a result of the placement experiences. Such changes related both to issues of confidence and motivation to study generally, and to a sense of more active engagement with learning tasks. This included a better personal sense of the subject matter, or of a wider reading around a topic, or a greater readiness to question and critique taught material. In this way, students were now more likely to 'own' the learning rather than 'just' accept it.

Not all students interviewed had such positive views, and a small number spoke of the challenges of moving back into university life. These challenges related both to lack of motivation for further study and, for many, the fact that most of their original cohort had now completed their studies (having chosen not to undertake a placement). However, these drawbacks did not outweigh the benefits.

Alongside positive impacts on approaches to study, students' experiences of work placements had helped inform their future intentions, once they had completed their programme. A very small number were continuing to work (on a part-time basis) with their placement organisation. For the majority, the placement experience had helped shape their future plans in the following ways: previous ideas and plans had been confirmed (or rejected), new areas of interest within a broad subject area had been opened-up and future careers plans had been changed completely. Perhaps, if all students had a placement, personal development planning and the use of the university careers services would be more effective and timely.

It is clear from this study that in many instances, students who 'opt' to do a placement are in the minority within their cohort. But given such positive messages (as explored through this report) from students about the impact of work placements on their subsequent learning experiences (and future career plans) one must wonder why more students are not pushing to do them.

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Annex: Analysis of students on sandwich courses and on placement years

- 1. Analysis of student numbers on sandwich programmes in recent years shows a declining sandwich student population in relation to overall undergraduate student numbers. The vast majority of students classified as sandwich students are on first degree (as opposed to other undergraduate) courses (Table 1). In the period from 1998–99 to 2004–05, the number of undergraduate students on programmes classified as 'sandwich' rose from about 113,000 in 1998–99 to a high of just over 119,000 students in 1999–2000 but numbers have since fallen. In 2004–05, there were about 107,000 students registered on sandwich courses. This figure represents just over seven per cent of the total undergraduate population.
- 2. If we focus on just the full-time (and sandwich) undergraduate population, sandwich students now account for just over 11 per cent of the full-time undergraduate population.

Table 1: Full-time/sandwich undergraduate students at UK higher education institutions, 1998–99 to 2004–05

institutions, 1770–77 to 2004–03									
	1998–99	1999–00	2000-01	2001-02	2002-03	2003-04	2004-05		
Sandwich - First degree	106965	113950	112110	11375	110795	107485	103830		
Sandwich - Other undergraduate	5740	5320	4795	495	3510	3210	2940		
Total - 'sandwich'	112705	119265	116905	117870	114305	110695	106770		
All undergraduates	1230660	1247775	1260990	1318740	1379685	1408505	1444720		
'Sandwich' as % all undergraduate	9.16%	9.56%	9.27%	8.94%	8.28%	7.86%	7.39%		
All ft/sw undergraduates	848110	845340	841315	857440	913680	926285	943290		
'Sandwich' as % ft/sw	13.29%	14.11%	13.90%	13.75%	12.51%	11.95%	11.32%		

Source: HEFCE analytical Services Division analysis of HESA data.

Home and EU fundable students only. Definitions follow those used in HESA reference volume for 2004–05 for all years. Duplicate records removed so that the numbers slightly lower than in HESA 2004–05 reference volume.

3. More detailed analysis has shown that the 'number of students on sandwich courses' is a somewhat uncertain statistic, since institutions sometimes only return the mode 'sandwich' for the placement year, and some do not even return this mode at all, even in the placement year. In addition, not all of these students 'on' and returned as 'on' sandwich programmes actually take up their placement year. Table 2 shows the numbers of undergraduate students actually 'on' placements, year-by-year.

Table 2: Students on placements at UK higher education institutions, 1998–99 to 2004–05 (Modes: full-time, sandwich, optional and compulsory year out – study related)

All Undergraduate	30510	29385	27500	26730	22100	21455	21055
Other Undergraduate	1780	1425	1095	1080	1075	860	665
First degree	28730	27960	26405	25650	21025	20595	20390
	1998–99	1999–00	2000-01	2001-02	2002-03	2003-04	2004-05

Source and definitions as Table 1. Counts of placement students only include first year where the placement straddles two academic years.

- 4. The count of students on placements has declined over the whole period (Table 2). It is also clear that the decline in the numbers on placements has been greater than the decline in the numbers on sandwich courses. This may, at least in part, be due to changes in the way institutions have returned sandwich places. If institutions had made more consistent returns, by showing students as being on sandwich programmes for each year of their programme, that would reduce the measured decline in numbers of sandwich places.
- 5. However, if we assume that reporting patterns have not changed significantly, then there must have been a decrease in the take up of placement opportunities. Table 3 shows the numbers of students on placements as a proportion of the numbers of students on sandwich programmes.

Table 3: Sandwich students on placements at UK higher education institutions, 1998–99 to 2004–05 (Mode: sandwich only)

1990-99 to 2004-03 (whode, said when only)									
First degree programmes									
	1998–99	1999–00	2000-01	2001–02	2002–03	2003-04	2004–05		
On placement	23335	23760	22485	22245	20040	19240	18505		
In 'placement year'	24445	26695	25495	24110	22820	21895	20915		
% on placement	95.45%	89.01%	88.19%	92.26%	87.82%	87.89%	88.47%		
Other undergraduate programmes									
On placement	1645	1340	1015	970	915	675	615		
In 'placement year'	1920	1530	1295	1150	1125	865	795		
% on placement	85.68%	87.40%	78.42%	84.45%	81.01%	78.27%	77.14%		
		All ui	ndergraduat	e programm	ies				
On placement	24980	25100	23500	23220	20955	19920	19115		
In 'placement year'	26365	28225	26790	25260	23950	22760	21710		
% on placement	94.74%	88.93%	87.72%	91.91%	87.50%	87.53%	88.06%		

Source and definitions as Table 1. Counts of placement students only include the first year where the placement straddles two academic years. In 'placement year' refers to year 3 for first degree programmes and year 2 for other undergraduate programmes.

6. The number of students 'out' on placements and returned as being on a sandwich programme as a proportion of those on sandwich programmes has fluctuated, though over the whole period there has been a fall from 95 per cent in 1998–99 to 88 per cent in 2004–05 (Table 3).

7. Table 4 below shows the numbers of first-degree students 'out' on placements by type of institution. Although the absolute decline has been largest in the post-1992 universities, in relation to the numbers in 1988–99, both pre-1992 universities and colleges have seen a slightly bigger proportional decline over the whole period.

Table 4: First degree students on placements at UK higher education institutions, 1998–99 to 2004–05 by type of institution (Modes: full-time, sandwich,

optional and compulsory year out – study related)

	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04	2004–05
Pre-1992 university	11755	11540	10690	10690	7540	7990	8025
Post-1992 university	15110	14815	14410	13765	12255	11625	11060
College/ other	1865	1610	1305	1195	1235	980	1300
Total	28730	27965	26405	25650	21025	20595	20390

Source and definitions as Tables 1 and 3

8. The relative positions of the different groups of institutions are shown more clearly in Table 5. The share at the post-1992 universities rose to a peak of 58% in 2002–03, against 36% at the pre-1992 universities, but then fell to 54% in 2004–05 as the numbers continued to decline while the numbers at pre-92 universities stabilised. Over the whole period from 1998–99 to 2004–05, colleges and 'other' institutions maintained their share at around 6 per cent.

Table 5: 'Share' of sandwich first-degree students at UK higher education institutions, 1998–99 to 2004–05 by type of institution (Modes: full-time, sandwich,

optional and compulsory year out – study related)

	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04	2004–05
Pre-1992 university	41%	41%	40%	42%	36%	39%	39%
Post – 1992 university	53%	53%	55%	54%	58%	56%	54%
College/ other	6%	6%	5%	5%	6%	5%	6%

Source and definitions as Tables 1 and 3

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