



**BSc (Hons) Business and Technology: a
case
Study in integrating and embedding
employability**

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Summary

Through the evaluation of a single course at Sheffield Hallam University, we have identified core attributes, transferable to any course, that enhance student employability. These attributes are summarised by the Sheffield Hallam Employability Framework, which is combined with:

- a learning environment which encourages autonomy and personal development
- a student-centred approach to support and guidance
- a strong emphasis on Personal Development Planning (PDP)
- an innovative approach to learning, teaching and assessment
- a strategic and collaborative approach to curriculum design and course management, based on strong relationships with key stakeholders such as careers guidance, employers and external advisors.

This case study, through the provision of practical examples, demonstrates how these features have been implemented in an undergraduate programme of study – the BSc (Hons) Business and Technology degree. It provides evidence that ‘integrated embedding’ of employability is the most effective way to achieve full engagement by students and to enhance their employability within the context of widening access to higher education.

Objectives

As part of the process of applying for a Centre for Excellence in Teaching and Learning (CETL) in Employability at Sheffield Hallam University, teaching programmes were evaluated. The evaluation team wanted to identify examples at Sheffield Hallam of excellence in embedding and enhancing employability. Courses selected through Learning, Teaching and Assessment networks were rigorously evaluated through student outcomes and interviews with staff about practice. The evaluators looked for triangulation by reviewing evidence from course meetings and external examiners’ comments as well as consulting final year students in a structured group session about what helped them.

Four programmes met the stringent criteria set by the team. For one, the Business and Technology degree, there were excellent key performance indicators on employability, and both students and employers provided unsolicited support and evidence of employability enhancement.

I have used the skills learned on my course and throughout my placement, time and time again (student)

It was evident that his [the student’s] perspectives during problem solving and general discussions were wider and more comprehensive than one would normally expect from a business studies student (employer)

This case study identifies the key features of the Business and Technology degree that have enabled it to yield such excellent outcomes; similar features could be adopted by other courses across Sheffield Hallam and other higher education institutions.

Rationale - the case for integrated embedding

At Sheffield Hallam, we believe that the way to achieve full engagement by students and to impact on their employability is via what we call 'integrated embedding' because it:

- demonstrates commitment to and valuing of employability (Harvey & Howard, 1999; Harvey, 2001, 2002)
- encourages student engagement (Drew, 2001)
- supports the transfer of learning (Lave & Wenger, 1991)
- ensures equity of provision and engagement with a diverse student population (CHERI, 2002; Morey et al, 2003, HEFCE, 1997)
- integrates programme and central employability provision (Harvey, 2002)
- ensures the development of employer contacts and employability resources (Harvey & Howard, 1999; Harvey, 2001, 2002)
- ensures that quality processes are applied.

Courses designed with add-on modules or which focus on selected aspects of employability do not address all the above. By contrast, integrated embedding is achieved when:

- there are learning outcomes (LOs) relating to all the features, within modules through programme levels
- learning and teaching methods support the LOs
- the LOs are validly assessed
- assessment criteria and feedback enable improvement
- the above elements are aligned, with the features interrelated, forming a holistic student experience.

Context

The BSc (Hons) Business and Technology course is a four-year sandwich degree, incorporating a year long placement in industry in the third year of study. The course aims to enhance the employability of all its students by providing a vocational, commercially relevant programme of study developing technically literate, reflective practitioners for managerial roles in commerce and industry. The course has been designed specifically to be accessible to a diverse student population. The course has over 200 students drawn from a diversity of backgrounds and achieves excellent employability outcomes in relation to the modest entry qualifications of its students. The course demonstrates outstanding retention rates, first destination statistics and good degree statistics in relation to the University and across the higher education sector.

The embedding of employability is integral to the culture of the course and this view of employability mirrors that of the University, focusing on the enhancement of lifelong employability, reflecting research on the graduate attributes sought by

employers: intelligent, flexible, self-aware lifelong learners with communication, interactive and team working skills, who add value to and transform organisations.

This course culture, developed over a number of years, can be summarised by:

- a learning environment in which mutual respect and honesty encourage autonomy and personal development
- a student-centred approach to support and guidance
- a strong emphasis on Personal Development Planning (PDP) linked strongly to learning from work, career management and the provision of opportunities
- an innovative approach to learning, teaching and assessment – the course was an early adopter of e-learning
- a strategic and collaborative approach to curriculum design and course management building on excellent relationships with Careers and Employment Service, Learning and Teaching Institute, employers and external advisors.

Description

The Framework builds on its definition of employability (*'enabling students to acquire the knowledge, personal and professional skills and encouraging the attitudes that will support their future development'*) by specifying curriculum features that, together, develop student employability. Its coherent conceptual base draws on a model of employability development and is firmly rooted in relevant literature, research and many years of practice. Brown and Drew (2005) discuss it in detail, but the Framework's essential features are:

- progressive development of autonomy
- skills development (intellectual; subject; professional; key skills).
- Personal Development Planning (PDP).
- inclusion of activities similar to those required in external environments i.e., 'the real world' (to encourage transfer)
- reflection on the use of knowledge and skills (to encourage transfer)
- encouragement of career management skills
- engagement with learning from work (LfW)
- preparation for professions
- engagement with enterprise.

Evaluation

How does the Business and Technology degree enhance employability so well? We feel certain that it is through the integrated embedding of employability. Here are examples of how the course meets each aspect of Sheffield Hallam's Employability Framework with summaries of the supporting evidence.

The progressive development of autonomy

This is characterised by ongoing but decreasing student support; increasingly critical feedback; increase in peer support and tasks with more responsibility. For example:

Year 1: Through structured Personal Development Planning (PDP) sessions, embedded within a content focussed module, students are supported to clarify expectations, identify strengths and weaknesses and submit personal development

action plans which are assessed by personal tutors. Personal Tutors provide structured feedback at key points throughout the year.

Year 2: Students share coursework online, receive immediate feedback and present their final assessment to employers as well as academic staff.

Placement Year: All students are required to undertake a training year in which the need to work without close supervision is a key attribute required by all employers.

Final Year: Students undertake a business consultancy project where tutors role-play as employers. Students are also required to undertake a dissertation based on their work experience in which they apply academic theory from their course to a real-world problem.

Among the supporting evidence and outcomes, we cite the students' approach to learning in the final year (e.g., use made of dissertation supervisors); improving grades against learning outcomes through the levels; good quality work in relation to modest entry qualifications; a final dissertation (which contextualises skills developed); formalised feedback from external examiners; workplace supervisors; employers, and excellent (and rising) attainment statistics since 2000.

Skills development

There is a strong focus from Day One on the continual development of skills. For example:

Skills expectations are clarified at induction, e.g., The ESECT Employability Card Sort is used to help students to reflect on expectations, linking to Personal |Development Planning (PDP) sessions and leading to first assessment.

Intellectual skills are embedded in subject Learning Outcomes at each level of the degree (see skills matrix in Appendix 1).

Specified key skills learning outcomes/assessment criteria are applied in all modules, developing through the course. Assessment tasks require the development and demonstration of specific skills, with support and guidance (e.g. Use of Key Skills Online).

Among the supporting evidence and outcomes are very good retention rates; high levels of student achievement against learning outcomes; students' success in getting placements and final employment; feedback from graduates and employers; external examiners' comments on performance; the Annual Quality Review and destination statistics.

Personal Development Planning (PDP)

The Dearing Report of 1997 recommended the adoption of Student Progress Files at all levels of higher education as a 'means by which students can monitor, build and reflect upon their personal development'. They have been systematically built into the Business and Technology programme to support PDP and provide a coherent focus for the continual development of skills throughout the student's academic career.

PDP (see Appendix 2) is supported and assessed across all levels and integrated into the preparation for and assessment of the training year. It is a support mechanism to enable students to:

- develop skills of reflection on their academic, personal and professional development within clearly defined (safe) boundaries
- increase self-awareness of, and confidence in, their own skills, qualities, attitudes and capabilities
- set goals and action plans to develop, monitor and review their own progress

- improve their own learning and attainment by developing as an autonomous learner
- compile a record of their learning experiences and achievements, progress reviews, personal reflections and action plans
- plan realistically and manage their own career development.

For example, at each level of the course a module provides the focus for development and assessment of PDP, for which students can access online materials in the university's Virtual Learning Environment. PDP focuses on process (review-reflect-action plan), not just on the production of a progress file:

- Year 1: Focuses on personal development. Students review and reflect on experiences and compare their action plan against personal expectations. Action plans are assessed against criteria (the whole staff team is involved).
- Year 2: Focuses on work experience/placement preparation. Action plans reflect on students' current position, identify goals and identify employability 'gaps', e.g. should they participate in Hallam Volunteering?
- Final Year: PDP is located in the Professional Practice module in which students reflect on placement experiences and identify career action plans.

Among supporting evidence and outcomes we again cite the high retention rate (above 85%); students demonstrate their ability to reflect and create action plans and they can articulate where this located within their course. Comments received from tutors indicate how well focussed these students are compared to those on other courses.

'Real world' case studies and activities

We know that examples of these can be found at all levels, including reports, presentations and team work.

- Year 1: students undertake market analysis with information gathering, extensive use of IT (spreadsheets, databases, etc).
- Year 2: students evaluate new product development opportunities, develop customer database.
- Final Year: students participate in a year long small business planning simulation assessed by externals – bank managers, 'business angels'.

Among supporting evidence and outcomes we cite levels of achievement against learning outcomes; students' preparation for work activities, examples of students' work, feedback from workplace supervisors on students' performance in work tasks; and the fact that 10-15 externals take part in the Final year simulation – they come because it provides them with new ideas.

Reflection on the use of knowledge and skills

PDP runs throughout the course and includes assessed reflective activities. Some examples:

Year 1: students do a 'mock' presentation, reflect on it and receive feedback before an assessed presentation.

Year 2: students give peer feedback on reports prior to final submission.

Final year: In their Professional Practice Module, after placement, students display posters about their placement, how they got it, and what they learnt. Year 2 students and employers attend, assess the posters and give feedback.

Among supporting evidence and outcomes we cite their action plans that show that students are able to make connections between the course and work.

Encouragement of career management skills

PDP has a strong career management focus from the start, and in each year employers are encouraged to participate as the Careers and Employment Service.

- Year 1: students reflect on their position and goals, produce CVs and covering letters to a job specification (see Appendix 3).
- Year 2: Students prepare an action plan for how to 'plug' any employability gaps (perhaps through extra-curricular activities). Students are supported in their job application skills by a Blackboard placement site which advertises opportunities, provides access to company and job specifications, and offers other resources such as Key Skills Online; Careers Service web site.
- Final year: Students are required to identify, in their placement report, goals for the next 5 years and prepare an assessed action plan to achieve them.

As evidence we cite students' success (over 80%) in getting placements and jobs within six months of graduation; the range of jobs students are willing to consider; our observation that students more autonomous; the effects of feedback on changing student behaviour and improving their grades.

Learning from work linked to a compulsory training year

The BSc (Hons) Business and Technology is a 4 year sandwich course incorporating an industrial training placement which is typically 48 weeks long. Students with relevant prior work experience may be able to gain credit through the APEL (Accredited Prior Experiential Learning) process and can then complete the degree in 3 years full-time.

During the placement year the employer and the University share responsibility for supervising the student. The student's academic tutor and the course placement tutor monitor progress and provide support to the student, employer and work place supervisor. Students gain credit for the placement (10 credits in the final year) by undertaking the module Professional Practice whilst on training placement.

The placement year is a vital element of the course (arguably the most important) in which students gain real work experience. The placement must involve responsibility, but it should also consolidate and put into practice students' prior learning, so that they practise and develop their skills and formulate career plans (see Appendix 4).

All students do a Placement & Professional Practice module or a module about learning from other work experiences (such as a year out, setting up their own business, multiple work experiences).

While on placement students have a mini-appraisal three times with their workplace supervisor. They must also submit assessed deliverables: a report, with an action plan for the next 5 years; the employer's assessment against stated criteria, and a poster. Quality of the placement is ensured through moderation, tutor visits, other visits if there are problems, and email contact.

Learning from Work module: for those not on placement there is a Blackboard site with peer support and tutor support online.

As evidence we cite improvement in coursework after placement; students cope well with placements and are able to contextualise their learning; the rate of employment on graduation is very high; external examiner and employer comments are favourable, and so are students' placement reports.

Enterprise (modules at all levels integrate this into the curriculum)

From its outset Business & Technology has provided its students with a range of experiences during which to practise the skills and apply the knowledge gained in other parts of the programme. The enterprise theme is a series of elective units. There are no pre-requisites to impede progression or students joining at various points along the way. These modules form a coherent series which, if taken completely, make up a mini-strand. As any engineer will know the process of design is not linear, requiring as it does iteration and invariably modification, before an idea is realised. The enterprise modules endeavour to break down the process into a number of stand-alone – yet identifiable – phases of the process, which when combined and mastered will provide the student with the tools to maximise the chances that a novel idea will succeed. If individuals are entrepreneurial then giving them the relevant tools will make them more successful. Likewise if some individuals are not entrepreneurial then providing them with these tools will make them better employees.

For example, our students in Year 1 identify opportunities to market a product; in Year 2 they explore how others identify opportunities and develop products, and as a case study they innovate for a customer; in the final year they prepare a business plan for a small business. They also engage in extra curricula activities, such as the 'Learn to Lead' course run by Sheffield Chamber of Commerce, or participating in the IBM business Planning Competition.

As evidence, we can point to students being very willing to work in SMEs (the placement trend is to work for SME; over the two years five students have set up businesses during their placement year, and after the course two students have started their own micro-businesses. Achievement of learning outcomes is reflected in increasing grades through the levels showing value added. We can also cite employers' comments on the commercial awareness of students, and feedback from students and externals.

Discussion

This paper has identified practical ways in which the features of Sheffield Hallam University's Employability Framework can be made to 'come alive' in a real programme of study. In addition, this case study also illustrates the types of evidence that can be gathered to determine whether employability has indeed been enhanced. The methods, summarised below, used by the Business and Technology degree to embed employability offer a strong base from which to extend practice across Sheffield Hallam and other higher education institutions.

The programme shares the pedagogy of the Employability Framework, referring to experiential learning, to the 'reflective practitioner' and to the importance of context, with learning (e.g. skills development) situated in the subject, real world activities and Learning for Work. There is a clear articulation of aims, learning outcomes and practices. The programme leaders believe in empowerment, in valuing students and their owning of their learning.

The programme uses a variety of learning, teaching and assessment methods in meeting students' differing needs (e.g., problem based learning; a blend of direct contact, module tasks and Blackboard). Assessment is used for learning, with clear assessment criteria and extensive feedback.

The programme has a stable and effective course team with strong leadership, adopting team teaching, formal staff roles, funded projects and champions to develop innovation and support the embedding process. The team sees active collaboration with external contacts as crucial in embedding practice, and there is extensive

collaboration other Faculties and Sheffield Hallam infrastructure elements (e.g., Careers Service).

Formal review and action planning points are embedded within the programme. At least every six years, revalidation provides a major opportunity for re-planning, involving employers and other stakeholders. Annual programme reviews draw on staff reflections, course team or moderation meetings and student, employer and external examiner feedback, to identify actions and check progress from previous reviews.

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Appendix 1 Key Skills development across Year 1 (Skills Matrix)

The Skills Matrix below simply extracts from module documents from year 1 those skills that are explicitly addressed within each module. It is therefore easy to see that there is an appropriate balance of provision to meet the Learning Outcomes of the programme. Shading is used to show where a skill is developed and assessed in a given module. The elective modules are identified with lighter shading to show how they too fit into the overall provision across the programme.

Key Skill

Year 1 Module

	Introduction to ICT	Interfaces	Understanding Organizations	Customers and Quality	Analytical Methods for B&T	Concept Realization
Problem Solving						
Information Gathering						
Communication						
Information Technology						
Numeracy						
Working with Others						
Reflection						
Setting Goals						

Appendix 2 Personal Development Planning (PDP)

Key Features

- PDP is embedded into a key module at each level
- Skills are assessed in individual modules – governed by a skills matrix for the whole course.
- PDP assessment is focussed on process of Review, Reflect and Action Plan, supported by evidence NOT FILES
- Blackboard has been used to enable and support the process but the activities also make use of meetings and paper based resources with some electronic submission and feedback.
- PDP/Placements Tutor co-ordinates the process from level 4 to level 6
- PDP is strongly linked to placements at all levels
- PDP assessment is performed by Personal Tutors at level 4 and Visiting Tutors (placement) at level 6.

Year 1

- PDP embedded within 20 credit module Interfaces
 - 30% of module assessment is based on PDP
 - other assessed work in module relates to development of relevant skills
- PDP starts in induction and is 'front-loaded'
- Support materials for PDP accessed thro module Blackboard site.
- Module co-ordinates support for key skills through a seminar programme, Personal Tutor meetings and Blackboard site.
- PDP assessment performed by Personal Tutors
- Skills Audit and Personal review
- CV and Covering Letter
- Progress Review
- Reflection on level 4 and Action Plan for Level 5

Year 2

- PDP focuses on support for placement
- PDP embedded within 20 credit module Web Technology
 - 20% of module assessment is based on PDP
 - other assessed work in module relates to placement preparation
- Support materials for PDP accessed thro module Blackboard site – electronic submission and email feedback
- Module co-ordinates placement support such as CVs, Application Forms etc..... thro seminars and review meetings, links to careers
- PDP assessment focuses on Action Planning and Reflection on Placement Process.

Placement Year

- Students visited twice by tutor
- Students are encouraged to keep a logbook or learning diary which might include:
 - job description, roles, responsibilities etc....
 - notes of meetings with supervisors
 - evidence of action planning
 - evidence of meetings attended or workshops
- Employers required to assess the student at two points in the year

- Formal assessment in level 6 module Professional Practice (10 credits)
Final Year
- The focus and assessment of PDP is the 10 credit module Professional Practice – this has three elements to it:
 - Placement report – a report which describes and reflects on the placement experience
 - Poster Day – open to year 1, year 2, employers ..
 - Employer assessments.
- Input from careers encouraging career management skills at the start of the final year

Appendix 3 Year 1 PDP Activities

The following assessment activities contribute 30% of the assessment mark to a 20 credit year 1 module which also focuses on the development of IT skills.

1. Skills Audit and Action Plan

Students are required to submit for the first assessment a 250 word commentary reflecting on personal and academic achievements to date. Identifying those areas in which students feel they need to improve and an action plan to explain how they will improve attainment in these areas. This assessed and handed back in the first meeting with the student's Personal Tutor.

2. CV and Covering Letter

Students are required to a CV and covering letter in application for the post of Marketing assistant at a ghost company. This is handed back in the second meeting with a Personal Tutor.

3. Progress Review and Tutor Assessments

Students are required to attend 3 meetings with their Personal Tutor and a formal Progress Review with their year tutor. These meetings include a discussion of marks and attendance as well as achievements and general overall progress.

4. Review of Year 1 and action plan for year 2

Students are required to submit a 500 word commentary reflecting on their first year in HE, personal and academic achievements. They are also required to submit an action plan identifying those areas in which they feel they need to improve, with appropriate actions, to gain the most from their second year of study.

Appendix 4 Placement Year

Educational Aims

The placement year will provide all students with:

- Preparation for a career in business and management by experiencing an extended period of training within an organisation.
- Relevant work experience providing the opportunity to put prior learning into practice, illustrating the level and extent required in employment
- Personal and professional development through exposure to a supportive work environment and professional colleagues.
- The context and focus for a final year dissertation enabling the student to focus on the analysis of a real business problem.
- The opportunity to formulate future career plans based on experience of working in a commercial environment.

Learning Outcomes

At the end of the placement year the student will be able to:

- Demonstrate an in-depth knowledge of organisations, their management and the changing external environments (economic, technical, social, political) in which they operate. (KNOWLEDGE AND COMPREHENSION)
- Summarise essential and other important aspects of a business or technical subject, and synthesize information, making and justifying links between subject areas. (COGNITIVE)
- Make and justify decisions about information and situations which are complex and (maybe) unpredictable. (SUBJECT SPECIFIC)
- Identify, justify and use methods of analysis and enquiry which are appropriate to solve business related problems (including those self initiated). (SUBJECT SPECIFIC)
- Select and use appropriate techniques, process and terminology depending upon the task and the business or technical context. (SUBJECT SPECIFIC)
- Extend and improve knowledge, learning and performance by applying methods and techniques, learnt for example in a new situation. (PROFESSIONAL)
- Draw upon the knowledge and experience of others to establish the range of skills and knowledge of workplace issues demanded in areas of employment relevant to their own future careers.(PROFESSIONAL)
- Articulate and reflect on the key elements of a successful job application procedure, within the context of developmental work on preparation for employment (PROFESSIONAL)

Evaluate, reflect on and form action plans to improve their own skills in relation to employability, within the context of the course and take responsibility for own learning and development. (PROFESSIONAL / KEY SKILLS).