

## CHAPTER B2

# Developing Professional Capability through Professional Training at the University of Surrey

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Dr Jenny Willis is an independent educational consultant and researcher with particular interests in the conceptualisation of professional capability and the design of curricula which enable this. A fuller account of her background accompanies Chapter A3 of this book.

### Summary

In this chapter, the author demonstrates how the University of Surrey has retained its place in the vanguard of professional training, developing graduates with the professional qualities, skills and competences sought by employers, and which equip them for life in general. She argues that visionary leaders have been crucial to the institution's success in adapting to changing eras and delivering a unique educational experience. A brief history of the University's evolution over more than a century identifies issues central to professional development/ WIL / COOP. These are then expanded through discussion of conceptual and epistemological themes such as the assumed objectives of Higher Education, models of experiential learning and competing academic values. The writer rejects the notion that developing employability should be the primary role of Higher Education. The University of Surrey's framework for professional training is explored against the context of changing internal and external factors. The underlying expectations of the formal professional training programme, assessment processes and students' perceived benefits are considered. In the final section of the chapter, the scope for developing professional capability is broadened to include not only the formal curriculum and the placement year, but also the life-wide experiences to which students are exposed throughout their years as a student, in their studies, leisure, volunteering and other activities. Key individuals and coordinated strategies are seen to be essential to the success of effecting change. The chapter concludes by demonstrating how collaboration between *inter alia* Professional Training, the Surrey Centre for Excellence in Learning and Teaching, the International and Careers Offices, has provided a new framework against which cutting-edge research is being conducted, leading to new understanding of what professional capability is and how we can facilitate opportunities for students to develop their professionalism.

### Key words:

Adaptability; employability; experiential and life-wide learning; leadership; professional capability; professionalism; work integrated learning; coop education

## Introduction

This chapter traces the development of professional training at the University of Surrey, one of the world's pioneers in providing educational opportunities through which undergraduates can develop their professional capability alongside their academic development. The University calls this model of education Professional Training, elsewhere in the UK it is known as work placement (Jackson 2010a), elsewhere bearing titles such as Work Integrated Learning (WIL), and Co-operative Learning (COOP). The very plurality of descriptors for this form of professional development conceals an even greater confusion over what 'professional capability' actually means. Is it simply a synonym for being 'employable', as might be assumed from the importance placed in the UK on graduate league tables<sup>1</sup>? Behind even this disarmingly innocuous term, there lurks a wide debate on what 'employability' itself comprises. Through this account of one university's experience of developing professional capability over more than a hundred years, spanning three very different centuries, we shall explore some key issues. We argue that the University's success lies in the vision of strong leaders and their willingness to adapt to changing needs whilst remaining true to the institution's founding principles.

## Setting the context: evolution of the University of Surrey

*From 19<sup>th</sup> century Battersea to 21<sup>st</sup> century Guildford*

Battersea College



University of Surrey

A visitor to the University of Surrey's home page will be greeted with the information that

The University of Surrey is an international university with a worldwide reputation for excellence in teaching and research. It offers students a unique combination of high academic standards, employment success and a prime location in beautiful surroundings, yet with ease of access to London. Our undergraduate and postgraduate students experience a first-rate working environment and a lively social life. ([www.2.surrey.ac.uk](http://www.2.surrey.ac.uk))

Today, the University campus is situated some 30 miles south-west of London, adjoining the cathedral town of Guildford, Surrey, and offers undergraduate and postgraduate degrees in a wide range of subjects in the Arts, Sciences, Engineering and Technology. There are currently 14,441 students, recruited from the UK and around the world, 2,300 members of staff and growing international partnerships as far afield as the Nanjing University, China and Universidade de São Paulo, Brazil. But this is all a long way from the University's humble origins.

The University of Surrey began life as Battersea Polytechnic, in south London, one of three 'technical and recreational' institutions established in the area by a Charities Commission of 1887 and funded partly through 'whisky money', the revenue raised on beer and spirits (see Douglas, 1991). The mission of these institutions was to

promote the education of the poorer inhabitants of the metropolis by technical instruction, secondary education, art education, evening lectures, or otherwise, and generally to improve their physical, social and moral condition. (Arrowsmith 1966:1)

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<sup>1</sup> Destination of Leavers from Higher Education statistics are produced annually by the Higher Education Statistics Agency, showing the occupation of UK graduates 6 months after graduation

Battersea Polytechnic opened in 1894, offering classes in Mechanical Engineering and Building Trades, Electrical Engineering and Physics, Chemistry, 'Women's Subjects', Art and Music, to students who were enthusiastic but often had only elementary education. Under the leadership of its first Principal, Sidney Wells, the Polytechnic's academic ambitions quickly outgrew the limitations of socialisation and preparation of workers for 'the trades'. As the institutional magazine would later record,

Mr Wells foresaw the possibilities of the Polytechnic as a centre for Higher Education and, while in sympathy with the social work, he felt that this should be subordinate to education.  
(Battersea Polytechnic Magazine 15, lxvi, pp 2-3, 1923 I3/0026)

Thanks to Wells' prescience, when the First World War arrived, Battersea was able to play a significant role in the training of engineers, chemists and other specialists, leading to its programmes being approved at degree level and accredited by professional bodies such as the Institute for Chemistry. By 1921, it was offering research degrees at Masters and PhD levels, approved by London University. In an interesting portent of today's international strategy, Battersea established a strong link with the Polish University College, helping in the training of scientists and engineers to rebuild Poland after the Second World War.

So, in less than fifty years, Battersea Polytechnic had transformed into an institution specialising in academic courses with a professional application. In 1953, its Principal, Dr West, declared that it 'might safely claim to be the foremost Technical College in the country for advanced level work' (quoted in Douglas 1991:61). Yet at its heart was one constant: professional development of the individual.

External drivers were again to favour Battersea's advancement: in the aftermath of world war, it became clear that the UK was less technically prepared than many other nations. In response, the government launched a 5-year programme of expansion in technical education, including the award of a new Diploma in Technology, equivalent in status to a degree, delivered through a network of colleges that would become known as Colleges of Advanced Technology (CATs). In 1957, Battersea Polytechnic became Battersea College of Technology. The institution had already introduced pioneering 'sandwich' diploma courses of the nature now politically desired. These integrated a period of work-based, industrial learning into the academic programme, and were offered either as "thin sandwich" courses (5 year programmes with 6 months in industry and 6 months in college every year) or as "thick sandwich" courses (4 year programmes with two years in college, one in industry and the final year in college).

Now, through a combination of internal ideology and external conditions, Battersea College of Technology had established its unique reputation for an academic qualification integrated with professional development. The next step was for it to acquire university status and the right to confer its own degrees, a move facilitated by changes in educational policy which allowed CATs to have these powers and to pay salaries commensurate with those of the existing universities (Robbins 1963). A new location would be sought for the expanding institution. To their mutual benefit, the status of university made Battersea College a desirable asset for Guildford, whilst the institution enjoyed the reflected glory of a cathedral city and a rural setting. Now named the University of Surrey, the erstwhile college received its Royal Charter in 1966.

#### *Recent developments at the University of Surrey*

The University's vision set out in its Charter was and remains

the pursuit of learning and the advancement and dissemination of knowledge, in Science and Technology and all that pertains to a fuller understanding of humanity, in close **co-operation with the industrial life of the country and with commerce and the professions**; so that by its discipline and inspiration and by the sharing of their life and interests its Members at all levels may grow in wisdom as well as knowledge and be enabled, according to the best of their several talents and abilities, **to enrich their own lives and the life and livelihood of the community.**

<http://www2.surrey.ac.uk/about/corporate/governance/charter/>

The author's emphases draw attention to an inherent concern not only to contribute to the industrial and social welfare of the nation but equally importantly to develop the individual student. Recent governmental rhetoric acknowledges these traditional expectations of a university education, but commitment is at best luke-warm:

Alongside its social and cultural role, higher education is, and will continue to be, central to this country's economic performance in the twenty first century. (BIS 2009:7)

In 1972, the University of Surrey was a member of the Commission for Integrated Sandwich Courses (UCISC) that established a code of practice for industrial placements. These criteria will be discussed later, but continue to underpin the University's model of professional development. As a former CAT, the University's programmes of study and their applied nature were consistent with central demands of Higher Education (HE), nevertheless, like its sister institutions, it was being forced to change by numerous external pressures, from academic to economic, which effectively reduced its autonomy. Jackson (2002) and Willis (2010) provide succinct accounts of these drivers.

Over the intervening years, professional training has been Surrey's claim to distinction and in 2004, the University made a successful bid to become a Centre for Excellence in Teaching and Learning<sup>2</sup> based on its claim for providing excellent undergraduate education through its professional training scheme. But within the bid there was recognition that there was scope for further development of this model of education. In January 2006 the Surrey Centre for Excellence in Professional Training and Education (SCEPTRE <http://www.surrey.ac.uk/sceptre/>) was established with the mission to support the further enhancement of this educational model. It has done much to advance our understanding of professional capability and more recently to extend the opportunity for developing capabilities that is relevant to the professional world through a wealth of extra-curricular learning experiences.

Increasingly, notions of employability have come to dominate the University's promotional materials. Prospective students are told:

The University of Surrey has the best employment record of any UK university.

That's a bold statement to make, but with the latest statistics showing we have the lowest unemployment figure in the country, and the best average unemployment rate of any university over more than a decade, the evidence is clear. (<http://www2.surrey.ac.uk/undergraduate/>)

The reasons for this focus are well-rehearsed: in the globalised, competitive world of the 21<sup>st</sup> century, sponsors and employers demand graduates who are ready for the workplace, and fee-paying students expect value (= graduate employment) for their money. Transferable skills and expectations of lifelong learning have become common parlance since the Dearing Review of Higher Education (1997). If there were any doubt about the government's agenda, in 2009, the Department for Business, Information and Skills announced:

We will ask all universities to publish a statement on how they promote student employability. Universities must be free to define what works best for students in different courses and different institutions. But it is a top concern for business that students should leave university better equipped with a wider range of employability skills. All universities should be expected to demonstrate how their institution prepares its students for employment, including through training in modern workplace skill such as team working, business awareness and communication skills. This information should help students choose courses that offer the greatest returns in terms of graduate opportunity. (BIS 2009:8)

Accompanied by a drive to widen access to HE (HEFCE 2006, Aim Higher) – whether in the interests of the individual or of the economy - and of an annual survey of student satisfaction<sup>3</sup>, England's universities have been forced to review their curricula, their pedagogies and priorities. Hence, the University of Surrey today retains its expertise in the sciences and technology, but has extended its curriculum to offer undergraduate and postgraduate degrees in a wide range of subjects from performing arts to business management and law, health and biosciences.

### *Summary*

This brief account of the University's evolution has touched upon many of the issues central to developing professional capability. To list just some of them:

<sup>2</sup> The Higher Education Funding Council for England established 74 Centres for Excellence in Learning and Teaching in 2005. Funded for a 5-year period, they were part of a drive to raise standards in university teaching and learning

<sup>3</sup> Since 2005, The Higher Education Funding Council for England has commissioned the National Student Survey of HE, the results of which are published as league tables

- There is no commonly agreed term for the forms of education that explicitly set out to develop professional capability which involve learners in actively engage in learning to be professional through their engagement in an epistemic community of practice – what is known variously as WIL/ COOP/ professional training
- Underlying these terms are differing notions of what professional competences are or should be
- Numerous models exist of where and how these competences are developed and assessed
- Whose interests are best served through such competences ranges from the individual to the national
- The forces driving change in higher education, including the place of professional development, are increasingly external rather than institutional.

Before we examine how the University of Surrey seeks to develop professional capability, let us address some of these fundamental issues.

## Concepts and definitions

### *Experiential learning: WIL/ COOP/ Professional Training/ Work-Based Learning*

These terms all represent forms of 'experiential learning', a concept described by Kolb (1984:38) as 'the process whereby knowledge is created through the transformation of experience'. Knowledge is no longer perceived as neatly packaged, static, forms of data; instead it becomes something which is constructed by the individual and which is subject to constant change and reconstruction according to workplace relationships and interactions (Hager 2004). Heron (1999) conceptualised this as a 'multi-dimensional' model of learning, comprised of four dimensions: the experiential, the imaginal, the propositional/conceptual and the practical. One of the most difficult tasks for advocates of experiential learning, including professional training, is to convince colleagues and the public of its academic credibility. An interesting discussion of the power struggles associated with enquiry-based forms of learning can be found in Usher and Edwards (1994).

Whilst the terms listed above share notions of experiential learning, they also imply individual concepts, some of which are themselves hostages to fortune. What, for instance, is the 'workplace' of today? Lee et al. (2004) remind us that political, economic and social factors are transforming traditional assumptions of a fixed place and time.

Even if consensus were reached on where professional learning takes place, how learning opportunities are structured formally within the curriculum vary considerably. The notion of applying theoretical knowledge to practice, of progressing from propositional to procedural knowledge, is misleadingly simplistic. As Yorke notes:

Work-based learning covers a spectrum of activities, amongst which are sandwich courses, co-operative programmes, job-shadowing, joint industry/university courses, new traineeships and apprenticeships, placements/practica, fieldwork, post-course internships, on the job training and work experience unrelated to academic study. (Yorke 2005:7)

### *Formal and informal learning*

But herein lies another issue: learning is not confined to the formal curriculum. Bateson (1972), for instance, distinguishes between three levels of learning: conditioning/acquisition of 'knowledge'; learning the 'hidden curriculum', and questioning/ reconstruction. Some (e.g. Lee et al. 2004) recognise that learning may be unintentional, whereas others argue that it

is usually intentional but not highly structured and includes self-directed learning, networking, coaching, mentoring and performance planning that includes opportunities to review learning needs. (Marsick and Watkins 2001:25/6)

Eraut (2000, 2001) prefers the term 'non-formal' learning, proposing that this includes implicit, deliberative and reactive learning, which may not be immediately apparent, adding to the already immense difficulties of assessment, to which we shall return shortly.



## *Professional capability and employability*

We began this discussion by asking whether professional capability was synonymous with 'employability'. We would propose that employability is one, but only one, potential outcome of becoming professionally capable.

In the last decade, our understanding has come a long way since an early preoccupation with generic and transferable skills, and distinctions between these and subject knowledge. Researchers at the Open University began to describe employability as

a construct that goes well beyond the boundaries of 'key skills' and similar terms. It sits at the conjunction of a number of discourses that include the subject discipline(s) studied; both the individual and social psychology; communication; organisational sociology; and perhaps elements of management and finance. (Yorke and Knight 2006:21)

Taking forward their work, they developed a model for developing employability through the HE curriculum comprised of four elements: Understanding, Skills, Efficacy Beliefs and Metacognition (USEM). In other words, employability required the development of subject knowledge, propositional learning; opportunities to apply this through practical situations where additional skills can be acquired; personal qualities such as motivation and self-confidence, and critical reflection by the learner on how (s)he learns. This model of curriculum does not necessarily require a period of professional placement, but the University of Surrey's annual survey of students returning from professional training consistently finds that its students report development in all four domains (Willis 2009). Furthermore, the following employer speaks for many when he says

Graduates who have undertaken an industrial placement are able to 'hit the ground running' much faster than those who have no or little experience. (*Adrian Jefferies, Castrol-BP, Pangbourne WACE Employer Award Winner 2007*)

Clearly,

employers value graduates who have 'soft' skills, graduate attributes and complex achievements, all of which can be described as **'wicked' competences**: an achievement, such as creativity or critical thinking, cannot be precisely defined, takes on different shapes in different contexts and is likely to keep on developing (Knight 2007:1)

but how to convince traditional academics that these 'wicked competences' are as valuable, if not more so, than propositional knowledge? Inextricably entwined with such opposition is the difficulty of evaluating objectively and equitably such subjective qualities. Interested readers are referred to Boud and Symes (2000), Smith and Betts (2000) and Hays et al. (2002) for discussion of these issues.

In 2007, the Confederation of British Industry and a group of leading employers produced a definition of employability which has carried forward into current documentation. The term describes

A set of attributes, skills and knowledge that all labour market participants should possess to ensure they have the capacity of being effective in the workplace – to the benefit of themselves, their employer and the wider community.

Skills include self-management, team working, business and customer awareness, problem solving, communication and literacy, application of numeracy, application of IT.

Underpinning all of these attributes, the key foundation, must be a positive attitude: a 'can-do' approach, a readiness to take part and contribute, openness to new ideas and a drive to make these happen. (CBI 2009:8)

The new element here is recognition that the possession of skills and knowledge, the ability to reflect and manage, are useless unless accompanied by certain attitudes and dispositions. Barnett (2009) describes these attitudes as a 'professional will' and tasks HE with the role of developing a willingness to learn.

## *Life-wide learning*

Aided by the capacities afforded by information technology to collate and track data on individual achievement, recent years have seen the unification of many of the issues touched upon in this discussion, culminating in a recognition that learning is not confined to a single period or a single dimension of experience. In 2005, Barnett and Coate envisaged the formal HE curriculum in terms of 3 actions:

Curricula in Higher Education in the 21<sup>st</sup> century can be understood as intended educational processes that give expression to 3 domains – of knowing, doing, being. (Barnett and Coate 2005:49)

Since then there has been a move towards recognition that 'knowing, doing and being' permeate all aspects of life. To distinguish between longitudinal (lifelong) and lateral (contemporaneous) learning in different aspects of a person's life, Jackson developed the term 'life-wide' learning and SCEPTRe is encouraging the University of Surrey to adopt a life-wide conception of education within which the enterprise of developing professional capability sits.

Whole life' learning embraces learning in the classroom, on work placement, in paid or unpaid part-time work, in co-curricular settings and many other aspects of life. These contexts constitute a learners own 'life-wide curriculum' and by recognising this we can enable learners to integrate learning gained from experiences from all parts into their higher education experience.

[\(http://lifewidelearning.pbworks.com/\)](http://lifewidelearning.pbworks.com/)

Under this umbrella SCEPTRe is seeking to bring together numerous central and institutional initiatives designed to enhance the student experience, from the consequences of the Leitch Review of Skills (2006), to proposals for changing the system of degree classification and award of a Higher Education Achievement Report (Burgess 2007), and the University of Surrey's annual action plans. At the time of writing this chapter, SCEPTRe is coordinating work at the University of Surrey on a bespoke model for giving recognition to the achievements of its students both within and beyond the curriculum. Whilst not driven by the financial constraints which may reduce the proportion of students able to undertake a period of integrated professional placement, the initiative will also enable all students, irrespective of whether they have had a formal placement, to reflect on and enhance their professional capabilities.

## *Summary*

This review of some key concepts, definitions and the evolution of thinking, sets the background against which the remainder of this chapter will discuss the University of Surrey's approach to developing professional capability. Some issues to bear in mind are:

- Professional capability is seen by the University as being more than employability, though this is one of the anticipated outcomes of being professionally capable
- The University recognises that professional capabilities can be developed both within and beyond the formal curriculum
- Professional Training has been an integral part of all subjects at the University of Surrey, contrary to its more common association with vocational subjects
- Whilst professional development has been a constant throughout the existence of the University and its predecessor institutions, visionary leaders have been able to pre-empt and respond to changing social, political and academic conditions.

## **Developing professional capability at the University of Surrey: structural dimensions**

The title of this chapter refers specifically to the University's model of Professional Training, but it will, by now, be apparent that it is not only within the integrated Professional Training modules and placements that such development occurs. It is, nevertheless, due to the foundations built by the University's traditional success in these means of developing professional capability that Surrey has been able to move forward.

## *Framework for Professional Training*

We noted earlier that the University was a member of the Commission which, in 1972, established a code of practice for sandwich course placements. The criteria proposed in that code were that:

- Placements should be a compulsory part of the course
- Students on placement should be paid employees of the host company
- The university should be responsible for securing and approving the placement
- Students should keep a formal record of their placement
- Students should be visited at least three times on a full year placement
- Performance in the placement should be assessed
- At least 50% of the assessment must arise from an assessment by the employer
- The assessment must be recognised either by inclusion in the final overall assessment of the degree or by a separate award.

Today, the University of Surrey's regulations for Professional Training derive from these criteria and are aligned with the UK Quality Assurance Agency for Higher Education's code of practice for professional training, (QAA 2007, Section 9). While placements are not compulsory the university operates a policy that all undergraduate courses should provide the opportunity for students to undertake a structured and supported work placement. The next discussion outlines the University's structural and procedural arrangements; the following section will address conceptual dimensions.

### *Structure of placements*

In order to qualify as Professional Training, the minimum period of placement is set at 30 weeks duration (for a single, unpaid<sup>4</sup> placement) and 46 weeks (for one or more periods). There is an increasing tendency for students to have a single, long placement, where they have the option (Willis 2009b: 5-6). In some subjects, e.g. Dietetics/Nutrition, placements are held annually throughout the programme, in compliance with National Health Service requirements. With such exceptions, placements take place during the third year of a four-year degree. Students pay a reduced fee to the University during this period, in exchange for support and assessment before, during and after the placement.

### *Overall management*

Overall responsibility for ensuring Professional Training standards lies with the Professional Training and Careers Committee (PTCC), a senior Committee which reports to Senate via the University Learning and Teaching Committee. The Committee includes representatives of all Faculties, SCEPTR<sub>E</sub>, the Careers and other relevant central services, students and employers. It meets 3 times a year, so in practice much of the everyday management lies with the Chairman (a senior academic) and Secretary (an administrator from the Quality Support Office), working in turn with devolved teams within each subject and Faculty. In this context, the title Chairman is misleading, his role equating rather with that of a Dean.

The present chairman, Professor Neil I Ward, has sought to develop an active sense of community, bringing together academics, administrators, employers, students and other Services at biannual meetings. These complement the formal meetings of PTCC, widen participation and offer opportunities for colleagues to share practice and develop new ideas. The formal structure for both PTCC and the wider Professional Training community is illustrated in Figure 1. Formal reporting lines and executive responsibilities are coloured as plain blue, whilst managerial and administrative roles are shaded grey-blue.

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<sup>4</sup> The term 'unpaid' includes placements where any payment received is below the minimum threshold for paying tax



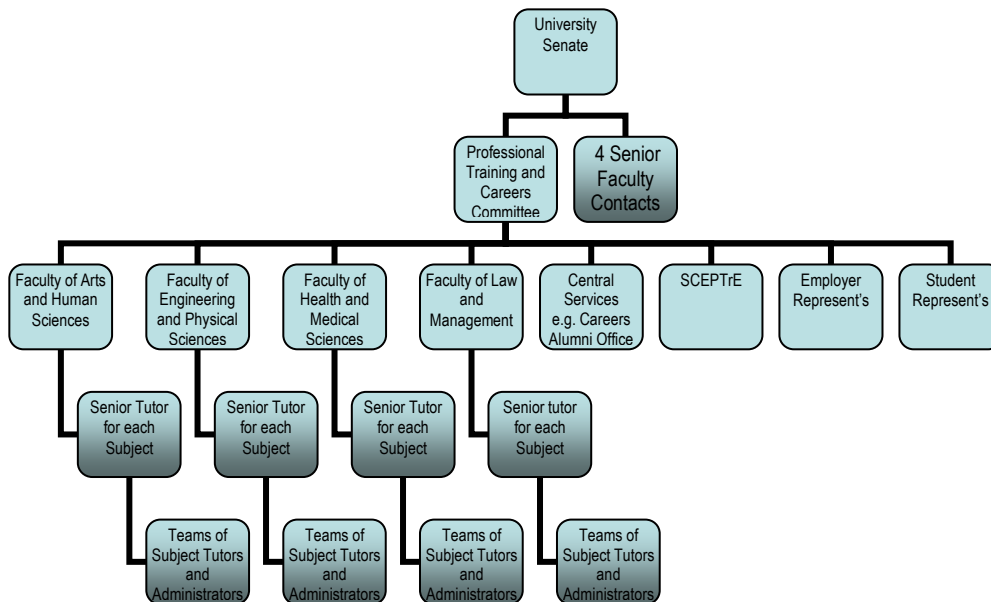


Figure 1 the Professional Training Community, University of Surrey

This figure shows the constitution of PTCC (row 3), followed by the tiers of responsibility within each of the four Faculties. Here, a Senior Tutor is named for each department, providing the first point of contact for 2-way communication between the departments and the centre. The Senior Tutor is an academic experienced in Professional Training. (S)he leads a team of tutors whose responsibility it is to visit and support the students during their placements, and to contribute with the host employer to the student's assessment.

Another recent innovation has been to have a single named contact within each Faculty. These individuals are experienced professional training tutors who are not only the primary point of contact between the Chairman and Faculties: in addition, they represent and deputise for the Chairman when necessary, and are being prepared for future senior roles by taking the lead in developing specific initiatives e.g. rationalisation of the information regarding Professional Training available on line and in published form, centrally and by Faculties.

### *Financing Professional Training*

It has already been noted that students pay a reduced fee to the University during their placement year. This varies according to the nature of the individual registration status, as a Home, EU or Overseas student. The location of a student's placement has no bearing on the fee paid.

The Chairman of PTCC manages an annual six-figure budget. Using a formula which includes the number of students going on placement and their locations, he allocates a sum to each Senior Tutor. They are responsible for managing this equitably and efficiently so that all students on placement receive the requisite number visits from their visiting tutor. To assist them in this, the authors of this paper worked with Faculty colleagues in 2007 to establish a set of guidelines that complied with other University policies on external travel and accommodation.

In order to manage within the annual budget, the Secretary provides monthly financial statements for each subject, and alerts the Chairman to any potential problems.

### *Finding a placement*

The original code of practice cited above suggests that the University should be responsible for finding and approving each placement. Whilst the later remains correct, current regulations move responsibility for finding the placement from the institution to the individual. In small departments such as Music, it is both feasible and preferred by staff for them to direct students to a suitable placement. In subjects such as Psychology and Management, where hundreds of placements may be needed, it is impractical to be so directive.

Collating and advertising placements is a joint venture, with offers coming directly to PTCC, to SCEPTrE, to individual academics, to the Alumni Office and to the Careers Service. The formal route is for on-line offers to be sent to the Careers Office, who retain a copy and forward them to relevant departments. They, in turn, publicise the offers on notice boards and/or on dedicated on-line sites. The degree of administrative assistance departments are able to provide to students is dependent upon the staffing structures they have. At present, these are highly variable.

Students are able to obtain on-line and face-to-face guidance on making applications and CV writing both within their departments, in the Careers Office and in student support services such as the Student Personal Learning and Study Hub (SPLASH, see <http://www.surrey.ac.uk/Skills/splash/> ). Departments also provide handbooks on all aspects of the professional training year, its aims, management and assessment arrangements.

In order to address the shortage of specialist placements, some subjects operate a contentious selection process, wherein only those who have attained a certain predicted grade in their academic performance are permitted to undertake a placement. This maintains high standards and assures employers of academically able students, but it prevents those whose talents may lie outside academic excellence from having the opportunity to develop them over an extended period of professional training.

PTCC's annual survey of student satisfaction, completed by students on their return to the University for their final year of study, gathers data on the number of applications they made before being successful in finding a placement. Any anomalous situations are followed up with departments.

### *Professional visits*

It will already be evident that a degree of flexibility is built into the Professional Training scheme, allowing for the differing needs of disciplines. So, whilst 3 visits from the Visiting Tutor is the normal requirement, some subjects e.g. Psychology and Sociology, replace the middle visit with a Return Day to the University. Falling in the second semester, this brings students back for a communal meeting where they exchange experiences, may make formal presentations on their placements, and select their modules for the final year of study. Placements for most students in these subjects are in the UK, making this model practicable and economically efficient.

The University has well-established links with employers around the world. For instance, in 2008/09, students went to placements in Australia, Belgium, Dubai, Finland, France, Germany, Hong Kong, India, Italy, New Zealand, Peru, Singapore, Taiwan, and the USA (Willis 2009b). Visiting such placements is costly therefore a variety of strategies is adopted to reduce these expenses: in Chemistry, for instance, partnerships with local universities enable academics to make reciprocal visits to students based in those regions. The School of Management also has many overseas placements, and maximises its budget by visiting several students on each visit to a country.

In the interests of continuity, it is recommended that a single individual should conduct all visits to a student. However, Biosciences have a rational scheme whereby the first visit is made by the student's personal tutor, and a different academic tutor, with expertise relevant to the placement, visits thereafter.

It must also be admitted that Professional Training lacks the prestige of research, and some academics are resistant to becoming involved in it. Consequently, in some departments, Senior Tutors are hard-pressed to find sufficient appropriate Visiting Tutors. Arrangements have been put in place to include preparation for the skills this role requires through the Postgraduate Certificate in Academic Practice (PGCAP), which all academics new to the profession must undertake when they begin working at the University (see <http://www2.surrey.ac.uk/cead/opportunities/PGCAP/> ). Excellence in Teaching and activities such as Professional Training are now one of the criteria for promotion. Unfortunately, such initiatives fail to reach some dyed-in-the-wool academics for whom anything other than research is demeaning.

### *Quality Assurance and evaluation of Professional Training*

- Comprehensive regulations
- Oversight of PTCC when programmes are submitted for validation
- Involvement of external examiners –when outcomes contribute to degree classification
- Annual evaluation of quality of placements

### *Research and development*

The University's policy for curriculum renewal expects all programmes to be reviewed, including external peer review every five or six years. This is the point at which significant changes are made to professional training within a particular programme. Ongoing research aimed at gaining better understandings to support and improve students' experiences of higher education has traditionally been undertaken by individual tutors who wanted to help their students with little recognition from the University. With the creation of SCEPTrE, a Fellowship policy was established to encourage and give formal recognition to tutors who wanted to undertake a research project. A number of Fellowships have been used to develop new curriculum practices (<http://sceptrefellows.pbworks.com/>). SCEPTrE has undertaken a number of on-line surveys and sponsored competitions aimed at gaining new insights into students' placement experiences and their perceptions of their own development arising from such experience. In addition, a number of research consultants have been commissioned to support SCEPTrE's research programme. In particular, Professor Michael Eraut has helped the University adapt the body of research knowledge into how professionals learn through work to the placement/professional training context. (Eraut, M. (2009, 2010)). This has provided the University with new insights into the meaning of professional capability.

### *Summary*

This outline of structural and management arrangements for professional training at the University of Surrey has illustrated that:

- the interests of the student should be paramount
- in order to achieve this, some flexibility is necessary, hence the regulations allow for some local variability
- the current Chairman has sought to enhance a sense of community embracing all those involved in professional training at the University
- the devolved model of local autonomy is facilitated by good communication systems and provision of central guidance to ensure commonality
- the commitment and availability of sufficient members of staff are essential to effective support of students
- professional training continues to be perceived by some traditionalist as academically inferior to other forms of Higher Education.

This final bullet point brings us back to questions of ideology, to which we now turn.

## **Developing professional capability at the University of Surrey: conceptual dimensions**

### *The aims of Professional Training*

The placement year is known as Level P (Professional), and is an intermediary level between the second and third years of a first degree. The University regulations describe the aims of this year as follows:

#### **Level P descriptor:**

- Develop and/or apply theory and develop skills independently in external educational settings or in practical and operational contexts;
- Develop knowledge and skills which can contribute to subsequent project work and study;
- Develop transferable skills and improvement in presentation, communication, team-working and interpersonal skills in a professional context.

(University of Surrey Calendar, Section C, General Regulations, Professional Training, Section 3.2.

Available on-line at [http://portal.surrey.ac.uk/calendar/generalregs/12professionaltraining-02.jsp#P650\\_20367](http://portal.surrey.ac.uk/calendar/generalregs/12professionaltraining-02.jsp#P650_20367) )

This description clearly reflects some of the objectives discussed earlier, namely the enhancement of subject-specific and transferable skills, the advancement of academic knowledge and application of theory to practice. There is reference to the future value of such learning, and there is recognition that learning may occur in different locations. What the descriptor does not include is any reference to the role attitude plays in becoming professionally competent.

## Assessment and accreditation

The previous section noted the role of the visiting tutor in assessing the student's professional training performance. The workplace supervisor (or delegate) is also responsible for assessment, and the student should be involved in discussion of formative and summative feedback.

The period of placement carries 120 P (Professional) credits<sup>5</sup>. These credits are usually accredited separately from the degree, and an additional, professional, award is made. In a few subjects (Engineering, as shown in table 2, below), the marks are converted into academic credits and contribute to the degree award. Table 1 summarises the forms of assessment and the weighting they carry in the University of Surrey's model.

**Table 1 Assessment of Professional Training at the University of Surrey**

[Areas below may be combined]	% of 120 P credits
Student performance in workplace assessed by employer	30-50
Student report(s)	30-50
Oral presentation by student	up to 10
Report by visiting tutor	5-20
Student participation in briefing and debriefing	up to 20
Additional academic work during placement	up to 30

As this table indicates, flexibility is once more facilitated. Modes of assessment may be combined, and the proportion of credits awarded for a given mode may vary within the range shown. When a programme of study is first approved or subsequently revalidated, PTCC is charged with examining the professional training arrangements, including those for assessment and accreditation, and reporting to the Validation Panel, in order to ensure that programmes conform to the regulations. The authors of this chapter were the first to compile an overview of how subjects actually apply this framework to their assessment of placements. Table 2 reproduces the findings of this exercise, showing results as at 2009.

Where professional training is accredited through another body, e.g. the Nutrition Society, the cells are left blank (though, in fact, since this tabulation was compiled, arrangements have been made to bring such subjects into the standard model). The coloured cells represent which forms of assessment are used and the number of P-credits they bear. It should also be noted that students of Foreign Languages and Law have two placements, hence total assessments for each carry 60 P-credits. Physics has a complex formula for converting assessments marks into a proportion of the 120 P-credits.

The use of colour coding in this table highlights the individuality of departmental responses to the forms and weighting of assessment taking place. It appears to show that mere attendance of a briefing or debriefing receives accreditation in some subjects. When probed, this equates to integrated modules where students are prepared for placement e.g. in the production of a Curriculum Vitae. The bright yellow column seems to suggest that only some subjects have an explicit expectation of critical reflection, but this is also implicit within student reports, presentations and the logs they complete in some subjects. These examples remind us of the partial nature of a tabulation such as this: it does not allow for the human element that lies behind differences. Furthermore, it may tell us vaguely what outcomes are expected, but it does not explain what is actually assessed nor how students are expected to achieve what is assessed. Qualitative investigation is necessary to examine and learn from good practice, a subject to which we shall return.

<sup>5</sup> A 3-year Honours degree in England carries 360 academic credits

**Table 2 Assessment and Accreditation of Professional Training at the University of Surrey, 2009**

ASSESSMENT AND P CREDITS		ASSESSMENT MODE						
Faculty	Programme	By workplace	Student report	Presentation	By visiting tutor	Attendance of briefing/ debriefing	Additional academic work	TOTAL P CREDITS
FAHS	Music	40	10 + 30	10	20	10		120
	Music & sound Recording	40	20 + 30	10	20			120
	Dance & Culture	*			* = 70	10	40 Reflection	120
	Economics L100	60	35	10	15			120
	Psychology	45	40	10	25			120
	Sociology	45	40	10	25			120
	Applied Psychology and Sociology	45	40	10	25			120
	Politics	50			20	5 + 5	40 Essay	120
	Foreign language	30	10*** + 60	With***	20			120
	Foreign language	15	10 + 25		10			60 (20 weeks)
FHMS	Biosciences (1 placement)	40	10 + 50		20			120
	Biosciences (2 placements)	30	30 + 30		30			120
	Chemistry BSc	3 x 5 + 25	15 + 40	10	3 x 5			120
	Chemistry MChem	2 x 2.5		15 + ** IndustD	2.5 + 7.5		** Poster	30 P credits
	Nutrition/Nutrition Food Science	40	10 + 50		20			120
	Dietetics							
	Nursing Studies							
FEPS	Computing	**	40		** 30 + 35		15 log	120
	Mathematics		40		30 + 35		15 log	120
	Electronic Engineering	65	15 + 25				15 log + paperw	120
	Physics	30	45	5	20			% of 120
	MMAE / ETITB	45	25 + 25	5	20			-10% Of degree
	Civil Engineering	45	25 + 25	5	20			-10% Of degree
FML	Management	20	60		10	20 46 weeks	10 PTO module	120
	Law (per placement)	30	10		10	10		60

*Student perceptions of professional learning*

Aims and outcomes may, of course, differ widely. PTCC's annual survey of students returning from placement elicits quantitative and qualitative feedback on their experiences and the contribution they feel placement has made to their personal and professional development. One of the present authors has transcribed and analysed the data for the last seven years and has found consistent evidence (Willis 2009b) to suggest development along the 4 pathways of the USEM model discussed above. A few examples from the most recent survey will illustrate the impact students feel their placements have had:

My confidence has grown and I know now that if I set my mind to things I can achieve them. I have gained skills to help me to survive in a professional competitive environment. I have matured a lot and gained knowledge about the music festival and large events industry. I also now have a clear idea on my future career choice. *(Student of Music, placement 2008/09)*

I think it makes you look at your academic work from a different perspective. Being able to apply what you are learning to past work experiences is invaluable. Hopefully future academic work will be of a higher quality and understanding. *(Business Management Student, placement 2008/09)*

Being able to work on multiple tasks, prioritise work and stick to deadlines under high time pressure. Also, having a taster of life as a professional, such as getting up early, commuting and, where necessary, staying extra hours at work has built my confidence. I appreciate time much more now having seen how it is limited yet with so much to do in it. *(Student of Law and French, placement 2008/09)*

If I was in charge, they'd be almost compulsory – especially for less-highly scoring students. The shift in attitude makes the final year much more accessible, and the increase in employability is invaluable especially with applicant numbers up and industry confidence down. Career-wise, it's changed my life. *(Student of Chemical Engineering, placement 2008/09)*

Whilst these quotations have been selected to reflect a range of disciplines, they are typical of the views put forward year on year.



## Summary

Arrangements for Professional Training and placements are:

- Required to conform with a common descriptor of the broad outcomes expected
- Monitored through PTCC and the Validation and Review process
- Based on a formula for assessment and accreditation, which enables local flexibility
- Produce high degrees of student satisfaction with the personal and professional development they experience.

The discussion to date has focused specifically on the Professional Training year, and its place within a 4-year programme of study. However, as has emerged at points in this narrative, professional capability is not confined to one year, nor to the formal curriculum. In this final section, we consider some additional initiatives at the University of Surrey that are helping us to understand what professional capability is, and how we can try to enhance students' opportunities for developing it.

### Professional capability: the broader picture

#### *An integrated strategy*

We suggested in the introduction that visionary individuals have played a crucial part to the development of professional learning at the University of Surrey. Credit must also be given to Professor David Airey who, as Pro-Vice-Chancellor (Learning and Teaching), ensured that the University's Strategy for Learning and Teaching included a range of separate but inter-dependent elements. The vision for 2004-2014 was

a professional ethos and relevance to the world of work and the changing needs of the work place; for many programmes this will include a period of supervised professional placement. (University of Surrey Learning and Teaching Strategy 2004-2014, Strategic Objective ii)

and a promise that

the learning and teaching will maintain and develop a distinctiveness in relation to its links with the world of work and the skills which it provides to the students as well as to the graduate's overall quality of life; as a part of this, arrangements will be made for the students to engage in reflective development planning that will be recorded in a Personal Development Plan. (Learning and Teaching Strategy 2004-2014, Strategic Objective iii)

Complementing this strategy were others which would impact on the scope of Professional Training, notably the Internationalisation Strategy, the importance of which was marked by the appointment in 2009 of a Pro Vice-Chancellor to oversee it. Immediate objectives are for

Global strategic partnerships to be expanded in India, China, Korea, Brazil and USA.  
Collaborative research and enterprise with overseas partners to be expanded. Programmes to be reviewed to meet international needs and global credit-bearing award in Languages and International politics to be further developed. (Internationalisation Strategy, University Plan Dec 2009:4)

These developments build on a long-established and thriving European scheme, Erasmus Exchange, now comprising study or work placements in the EU, in which the University of Surrey has been a UK leader for many years (for a full description of the scheme, see <http://www2.surrey.ac.uk/exchanges/outgoing/Info%20for%20Erasmus%20Exchanges/>).

The context was thus set for review of the curriculum, a firm commitment to professional development, and some of the means of realising the strategy were identified: a policy and support for personal development planning would be effected through creation of a new support unit, SPLASH (see above), the process to be managed individually through technology<sup>6</sup>. These new departures for the University followed a change in Vice-Chancellor; they coincided with the creation of SCEPTre and subsequent arrival of its Director, Professor Norman Jackson, who brought the vision and

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<sup>6</sup> The model or e-portfolio eventually selected was PebblePad. Information at <http://www.pebblepad.co.uk/>

networks essential to coordinating the conceptual dimensions surrounding professional capability. Working in partnership with PTCC, his team could provide professional support for academic and administrative staff; in partnership with the Careers Service, employer links were cemented further.

Arguably, though, SCEPTRe's greatest achievement has been to initiate research into the very crux of this chapter: what it means to be professionally capable. The creation of internal and external Fellowships has funded academics to explore subject-specific issues and models of professional development, and distinguished academics such as Professor Professor Michael Eraut, Professor Ron Barnett, Professor John Cowan and Dr Colin Beard who have contributed to conferences and workshops. Space does not permit us to do justice in this chapter to the many initiatives SCEPTRe has introduced, so readers are encouraged to dip into them on the Learning to be Professional wiki (<http://learningtobeprofessional.pbworks.com/>). We conclude with some examples that will illustrate how we are researching the nature of professional capability and the growing conceptualisation we have developed.

### *Researching professional capability*

Over the last four years, SCEPTRe has led university-wide exploration of various aspects of learning and teaching in higher education, bringing in prestigious figures in the field to contribute to debate and research. Internally, creative individuals have been given funding to lead local investigations and projects, forming an ever-growing snowball for innovation. Links on the web summarise current activities relating to Learning to be Professional as:

- Fellowship scheme – including Fellowships for people in other institutions
- Curriculum Innovation Awards
- Programme of seminars on 'Learning to be professional through a higher education'
- E-Book 'Learning to be professional through a higher education'
- Regular drop-in sessions to support sharing practice within the community of Professional Training practitioners
- Programme of research aimed at understanding how our curriculum designs support the development of professional capability <http://learningtobeprofessional.pbworks.com/>

Focusing on the latter, we consider briefly an example of how SCEPTRe's research comes together and is enabling us to have a better understanding of professional capability. Readers interested in more detail than is permitted in this chapter are referred to the sources cited.

### *Towards an understanding of professional capability*

In 2008, SCEPTRe commissioned Professor Eraut to conduct a qualitative exploration of students' perceptions of becoming professionals (Eraut 2010). This research was informed by a longitudinal study undertaken by a team including Eraut (Eraut et al. 2004) into the workplace learning of 92 newly qualified nurses, graduate engineers and training chartered accountants. From this work (Eraut 2007), he had identified 8 learning pathways, trajectories, along which learners develop professionally, and detailed the factors associated with development of each. His typology is reproduced in Table 3. It has been colour-coded by Willis (2009a) for reasons which will be discussed below.

Progression along pathways will be subject to individual contexts and opportunities, and will vary according to the individual's level of experience. As the model indicates, workplace learning involves elements of performance, applying knowledge to practical situations, development of transferable skills such as decision-making, and personal dispositions. This recalls the work of Barnett, Knight and Yorke, discussed earlier.

It also confirmed the findings of the annual PTCC survey of students returning from placement, and emergent findings from a qualitative investigation being undertaken in 2009 by Willis as a SCEPTRe fellowship. Analysis of student feedback for placements 2007/08 (N = 455) showed that perceived learning fell within four categories:

- personal qualities e.g. feeling more mature, increased motivation, increased proactivity, a 'better work ethic', being more open minded
- generic skills: team work, independence, inter-personal skills e.g. relationship with clients, communication (oral, written, email, telephone), time management/prioritisation, organisation, report writing, making presentations, IT competence

- subject specific skills e.g. sales and marketing, cutting and editing DVDs, simultaneous translation
- subject knowledge e.g. business operation, ethics in the NHS, hotel computer systems

**Table 3 A Typology of Workplace Learning Trajectories (from Eraut 2007)**

Learning Trajectory	Details
TASK PERFORMANCE	Speed and fluency Complexity of tasks and problems Range of skills required Communication with a wide range of people Collaborative work
AWARENESS AND UNDERSTANDING	Other people: colleagues, customers, managers etc. Context and situations One's own organisation Problems and risks Priorities and strategic issues Value issues
PERSONAL DEVELOPMENT	Self evaluation Self-management Handling emotions Building and sustaining relationships Disposition to attend to other perspectives Disposition to consult and work with others Disposition to learn and improve one's practice Accessing relevant knowledge and expertise Ability to learn from experience
ACADEMIC KNOWLEDGE & SKILLS	Use of evidence and argument Accessing formal knowledge Research-based practice Theoretical thinking Knowing what you might need to know Using knowledge resources (human, paper-based, electronic) Learning how to use relevant theory in a range of practical situations
ROLE PERFORMANCE	Prioritisation Range of responsibility Supporting other people's learning Leadership Accountability Supervisory role Delegation Handling ethical issues Coping with unexpected problems Crisis management Keeping up-to-date
TEAMWORK	Collaborative work Facilitating social relations Joint planning and problem solving Ability to engage in and promote mutual learning
DECISION MAKING AND PROBLEM SOLVING	When to seek expert help Dealing with complexity Group decision making Problem analysis Formulating and evaluating opinions Managing the process within an appropriate timescale Decision making under pressure
JUDGEMENT	Quality of performance, output and outcomes Priorities Value issues Levels of work

These were remarkably similar to the forms of development entailed in Eraut's learning trajectories. By colour coding his trajectories (as shown in Table 3) it was possible to map the student data against them. Details of this research can be found in the Fellowship report (Willis 2009a) at <http://sceptrefellows.pbworks.com/Jenny-Willis>.

Having tested the methodology, it was next applied to a richer data source: student narrative accounts of how they perceived themselves to have become professional. 28 extended accounts had been entered in SCEPTRE's 2008 competition, Learning to be Professional: the story of my placement. These were analysed and 32 common themes emerged, shedding light now on the activities that students felt to have been influential upon their professional

development. These, too were mapped against Eraut's learning trajectories, using the established colour coding, to produce the analysis shown in Table 4.

**Table 4 Developing Professional Capability, from (Willis 2009a)**

EMERGENT THEMES	LEARNING TRAJECTORIES								N
	1	2	3	4	5	6	7	8	
Responsibility/trust									24
Delegation to/training others									9
Budget management									3
Feeling valued									18
Seeing through start to end									9
Unpredictability, ad hoc tasks									10
Variety									20
Apply coursework/vice versa									20
New skills/knowledge									23
Challenge									23
Demotivation through lack of									1
Enabling career decision									17
Inspiring/enthusiastic staff									12
Role models in workplace									4
Networking									11
Hospitality/socialising events									12
Communication different levels									19
Workplace behaviour									16
Being part of team									26
Independence									19
Time management, prioritising									19
Organisation									19
Punctuality									6
Attention to detail									10
Job application processes									10
Benefits of work experience									10
Report writing									7
Written skills									10
Presentation giving									7
Cultural awareness									6
Volunteering additional tasks									9
Additional qualifications									3

**Learning Trajectories:**

- 1 Task Performance
- 2 Awareness and Understanding
- 3 Personal Development
- 4 Academic Knowledge and Skills
- 5 Role Performance
- 6 Teamwork
- 7 Decision Making and Problem Solving
- 8 Judgement

The coloured cells indicate where a strand of professional capability is perceived to have been developed, and the columns categorise it within one or more learning trajectories. So, for instance, reading horizontally, delegation to, and training of, others relates to both role performance and team work. Reading vertically, for example, seven different strands relate to task performance. The right hand column shows the number of narratives where a theme was present.

Perhaps the most important finding arising from this analysis is that being able to see through a task from start to end, as in a project, potentially supports professional development on all eight pathways. The model therefore informs curriculum planning which builds in opportunities for developing specific capabilities, and it provides a tool for monitoring individual development (Willis 2009a).

This example illustrates how complex and iterative the process of conceptualisation is: individual creativity has been able to take forward predecessors' ideas in a spiralling understanding of the issues. At the time of writing (January 2010),

further research has been commissioned by SCEPTRe designed to examine how professional competence is facilitated throughout the formal (3 or 4 years) undergraduate curriculum, not only through professional training.

It is apposite, then, to end this discussion with another example of how prescient SCEPTRe has been in recognising the scope of professional competence, situating it within the concept of life-wide learning and pre-empting current central moves towards a Higher Education Achievement Reports (see <http://www.hefce.ac.uk/learning/diversity/achieve/>).

### *Accrediting professional capability*

Again, a coincidence of factors have contributed to the push for a new means of recognising and accrediting professional capability: internally, the previous award, Associate of the University of Surrey, had been discontinued, but there was a strong desire (and, some feared, need, if students were to comply with assessments) to continue to give recognition for completion of a period of professional placement. External factors included the advent of student records of achievement (following Dearing, 1997), and the demand from employers for greater information to support differentiation and selection of employees (Burgess 2007). The University already had a robust volunteering scheme, which carried accreditation (<http://www.ussu.co.uk/volunteering/content/233983/accreditation/>), and, as is today common, many students have part-time jobs which provide a source of income to finance their degrees. Both of these dimensions offered opportunities for development of professional competences. The task was, how to bring together these and other dimensions to produce an award which was meaningful to students, employers and academics, manageable and complementary to the degree?

Over the last 2 years, SCEPTRe has set about persuading constituencies of the value of such an award, and produced prototypes of what such an award might comprise. A full account of the complete process behind the proposed new award can be found in Jackson (2010b). Essentially, it envisages an Experiential Learning Award which would give recognition to personal development outside the curriculum, e.g. in voluntary work, in non-degree related work, mentoring. To test the viability of assessing and accrediting performance outside the curriculum, pilot projects by SCEPTRe in 2009 and 2010 have been addressing the process of supporting and evaluating students' critical reflection and professional development through the part-time work they undertake to finance their studies.

These examples bring the discussion full-circle to the question of what professional capability actually means for the 21<sup>st</sup> century. We draw the discussion to a close with some conclusions on how one university has sustained its reputation for developing professionally capable graduates.

### **Conclusion**

We began with reference to the University of Surrey's reputation for being consistently successful in league tables of graduate employability. It should by now be apparent that we do not equate finding a graduate job with being a capable or potentially capable professional. We have suggested that graduates of today need to be knowledgeable and skilled, but must possess the dispositions that make them willing and adaptable employees.

In the course of its evolution, the University has had a common mission to develop the 'whole individual', whilst offering programmes which provide students with opportunities to acquire professional experience through an integrated year of professional training. The feedback they give us repeatedly is that they have 'grown up' and now understand 'the real world'. Surely this is testimony to a life-wide, life-changing, experience?

How has the University sustained its success? As we have seen, strong, visionary, individuals have been crucial. They have had clear strategies which, whilst retaining the institution's core values, have enabled it to evolve and push the boundaries of what higher education can achieve.

We are not complacent: we readily recognise the fortitude required to bring about institutional change. At times, developments have been assisted by external drivers which have left universities with no option but to respond or go under. We do, however, believe that the individuals named in this account have been highly capable academics, always looking to the future and predicting new directions. Relying sometimes on their formal authority, sometimes on their charisma as leaders able to inspire others, they have brought the University of Surrey to a position where it is now able to play a leading part in the reconceptualisation of what Higher Education, and professional capability, means for modern society. It has succeeded in balancing devolved management of the professional training process with a consistent, but



flexible framework, monitored and supported where needs arise. Working with partners and building on grounded research, Surrey is ready for its next great step: expanding its international networks.

## References

- Arrowsmith, H. (1966). *Pioneering in Education for the Technologies: The Story of Battersea College of Technology: The Story of Battersea College of Technology*.
- Barnett, R. (2009). *Willing to be a Professional*. University of Surrey SCEPTrE conference, *Learning to be a Professional*. Presentation, March 2009. <http://learningtobeprofessional.pbwiki.com/Ron-Barnett>.
- Barnett, R. and Coate, K. (2005). *Engaging the Curriculum in Higher Education*. Buckingham: SRHE and Open University Press.
- Bateson, G. (1972) *Steps to an Ecology of Mind*. New York: Ballentine Books.
- BIS, Department for Business, Innovation and Skills (2009). *Higher Ambitions. The future of universities in a knowledge economy*. HMSO.
- Boud, D. and Symes, C. (2000). 'Learning for real: work-based education in universities.' In Symes, C. and McIntyre, J. (eds) *Working knowledge: the new vocationalism and higher education*. Buckingham: SRHE/OU Press, pp. 14-19.
- Burgess, R (2009). 'Universities likely to swap degree grades for report cards'. *The Guardian*, 5 November 2009.
- Confederation for British Industry (2009). *Future Fit. Preparing graduates for the world of work*. HRE\_091 [www.cbi.org.uk/higher\\_education](http://www.cbi.org.uk/higher_education)
- Dearing 'Higher education in the learning society' (the Dearing Report), *The National Committee of Inquiry into Higher Education*, HMSO (1997). Available online at [www.leeds.ac.uk/educol/ncihe/](http://www.leeds.ac.uk/educol/ncihe/).
- Douglas, R. (1991). *Surrey: The Rise of a Modern University*. Great Yarmouth. Galliard Ltd.
- Eraut, M., Steadman, S, Furner, J., Maillardet, F, Miller, C. and Ali, A. (2004) *Learning in the Professional Workplace: Relationships between Learning Factors and Contextual Factors*. AERA 2004 Conference, San Diego.
- Eraut, M. (2007) 'Early Career Learning at Work. Insights into professional development during the first job.' *Teaching and Learning Research Briefing* Number 25 March 2007. [www.tlrp.org](http://www.tlrp.org).
- Eraut, M. (2009) *How Professionals Learn through Work*. <http://learningtobeprofessional.pbworks.com/Learning+to+be+Professional+through+a+Higher+Education+e->
- Eraut, M (2010) *Improving learning in the work placement environment: Developing and piloting of a research tool at the University of Surrey*. In N Jackson (Ed) *Learning to be Professional through a Higher Education e-book Chapter B1 Available on-line at: http://learningtobeprofessional.pbworks.com/Improving-learning-in-the-work-placement-environment*
- Hager, P. (2004) 'The conceptualisation and measurement of learning at work', in Rainbird, H., Fuller, A and Munro, A. (eds) (2004) *Workplace Learning in Context*, London & New York: Routledge.
- Hayes, R.B. et al. (2002). Selecting performance assessment methods for experienced physicians. *Medical Education* 36 (10), pp. 910-917.
- HEFCE (2005). Last accessed 16 November 2009 at <http://www.hefce.ac.uk/Learning/TInits/cet/>.
- HEFCE (2006). Aim Higher. [http://www.aimhigher.ac.uk/sites/practitioner/news/news\\_archive/2006/january\\_2006.cfm](http://www.aimhigher.ac.uk/sites/practitioner/news/news_archive/2006/january_2006.cfm).
- Jacksons, N. (2002). *Pressures for Curriculum Change*. LTSN Generic Centre. [www.ltsn.ac.uk/](http://www.ltsn.ac.uk/).
- Jackson N J (2010a) *Work Integrated Learning in the English Higher Education System*. In N Jackson (Ed) *Learning to be Professional through a Higher Education e-book Chapter B1 Available on-line at: http://learningtobeprofessional.pbworks.com/Work-Integrated-Learning-in-English-Higher-Education*
- Jackson, N. (2010b). From 'Work Integrated' to 'Life-Wide' Learning: Changing a University's Conceptions of Curriculum Special Work Integrated Learning Issue of HERD
- Knight, P. (2007). *Fostering and assessing 'wicked' competences*. Milton Keynes: Open University.
- Kolb, D. (1984). *Experiential Learning- Experience as the Source of Learning and Development*. London: Prentice-Hall.
- Lee, T., Fuller, A, Ashton, D., Butler, P., Felstead, A. Unwin, L and Walters, S. (2004). *Learning as Work: Teaching and Learning Processes in the Contemporary Work Organisation*. Centre for Labour Market Studies, University of Leicester. [www.clms.le.ac.uk/research/learningaswork.html](http://www.clms.le.ac.uk/research/learningaswork.html)
- Leitch, S. (2006). 'Prosperity for all in the global economy – world class skills' HMSO 12/06 349624. Available at [www.hm-treasury.gov.uk](http://www.hm-treasury.gov.uk) under Independent Reviews/Leitch Review of Skills.
- Marsick, V.J. and Watkins, K. (2001). 'Informal and Incidental Learning' *New Directions for Adult and Continuing Education*, No. 89, pp.25-34, Spring 2001.
- National Institute of Adult Continuing Education (NIACE). (2007). *Basic Skills and Employability 2007*. The Basic Skills Agency.
- Quality Assurance Agency for Higher Education (2007). *Code of Practice for the Assurance of Academic Quality and Standards in Higher Education*. Section 9: Work-based and placement Learning September 2007.
- Robbins, L. (1963). *The Robbins Report on Higher Education*. HMSO.

- Smith, R. and Betts, M. (2000). 'Learning as partners: realising the potential of work-based learning'. *Journal of Vocational Education and Training* 52(4), pp. 589-604.
- Surrey Centre for Excellence in Professional Training and Education <http://sceptreserver.co.uk/sceptre>
- University of Surrey (1966). Royal Charter. Available at <http://www2.surrey.ac.uk/about/corporate/governance/>.
- University of Surrey (2004). *Learning and Teaching Strategy 2004-14*. Available at [www.surrey.ac.uk/](http://www.surrey.ac.uk/).
- University of Surrey, University Plan 2009/10, Internationalisation Strategy, page 4. Available at <http://www2.surrey.ac.uk/about/corporate/documents/>.
- Willis, J. (2009a). *Professional Training, Critical Reflection and Peer Support: Making the placement year work for others*. Report available at [www.sceptrefellows.pbworks.com.Jenny-Willis](http://www.sceptrefellows.pbworks.com/Jenny-Willis).
- Willis, J. (2009b). *Professional Training Survey Report Placements 2008/09*. University of Surrey, internal report.
- Willis, J. (forthcoming, 2010). *How do we develop professional capability through the undergraduate curriculum?: A Work Integrated Learning Perspective*. [www.sceptreserver.co.uk/sceptre/](http://www.sceptreserver.co.uk/sceptre/).
- Yorke, M. (2005). *Issues in the assessment of practice-based professional learning*. Milton Keynes: Open University.
- Yorke, M, and Knight, P. (2006). *Embedding employability into the curriculum*. *Learning and Employability Series 1*. York The Higher Education Academy.