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AUTHOR   Reeve, Fiona; Gallacher, Jim; Sharp, Norman; Osborne,
                Michael; Land, Ray; Whittaker, Ruth; Dockrell, Richard;
                Neal, Peter
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ABSTRACT
            The DEAL (Developing Employment-based Access to Learning)
project evolved from a Scottish access to education initiative as a vehicle
for enabling workers and their employers to benefit from continuing education
through work-based learning. Through DEAL, educational institutions in the
United Kingdom have formed partnerships with a number of employers in the
public and private sectors. Employers are involved in all aspects of program
design, including provision of candidate support structures and assessment
mechanisms. Four programs have resulted from implementation of the DEAL
model: a bachelor's degree in postqualifying social work; a flexible route to
the diploma in social work; a portfolio access program; and a work-based
learning program for information technology. A process was developed for
implementing the DEAL model within small and medium enterprises. Eight issues
emerged as critical for the DEAL model, including the following: lifelong
learning; the nature of academic and employer partnerships; employers as
"champions" of their employees; the types of employers interested in DEAL;
dual accreditation; and quality assurance within work-based learning. (The
bibliography lists 18 references. Appended are the following: lists of
members of the project's support committees; Scottish Credit Accumulation and
Transfer framework; and list of acronyms. (MN)

FINAL REPORT

FLEXIBLE
LEARNING
AT WORK

The fundamental

aim of the DEAL

Project is to enable

people in

employment and

their employers to

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continuing education

through work-based

learning.

Scottish Enterprise

A Scottish Enterprise
Funded Project

in Partnership with

GLASGOW
C
CALEDONIAN
UNIVERSITY

NAPIER UNIVERSITY

THE DEAL PROJECT

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THE DEAL PROJECT

Developing Employment - based Access to Learning

FINAL REPORT
JUNE 1995

Fiona Reeve, Jim Gallacher, Norman Sharp, Michael Osborne, Ray Land,
Ruth Whittaker, Richard Dockrell, Peter Neal

Glasgow Caledonian University
University of Stirling
Napier University

Further copies of this report are available from:

Centre for Continuing Education
Glasgow Caledonian University
Cowcaddens Road
Glasgow
G4 0BA

THE DEAL PROJECT

Developing Employment-based Access to Learning (DEAL) Project

FINAL REPORT

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00HOW TO USE THIS REPORT

Section 1

Section 1.0 of this report provides a brief overview of the DEAL Project including a summary of the DEAL model for work-based learning and its benefits for employees, employers and educational institutions.

Section 2

Section 2.0 is intended to introduce the reader to each of the four programmes which resulted from the implementation of the model. Since it is not possible to describe each project in detail within this report, a brief summary is given here. Readers who wish to receive further details of a particular programme are encouraged to contact the person named at the end of each summary.

Section 3

Section 3.0 considers how the DEAL model may be applied within Small and Medium-sized Enterprises (SMEs). The issues which arise from working with SMEs are identified here and conclusions are drawn regarding the necessary conditions for effective partnership.

Section 4

In section 4.0 of this report we reflect on issues which have been particularly important in the development of the model and its implementation. Whilst we cannot hope to consider all issues in depth we hope that our reflections have some relevance for others engaged in work-based learning developments.

THE DEAL PROJECT

I. INTRODUCTION

1.1 Background to the Project

The Developing Employment-based Access to Learning (DEAL) project was established in June 1992 with funding from Scottish Enterprise for two years. The project, which evolved from a Scottish Wider Access Programme (SWAP) initiative, has been jointly undertaken by Glasgow Caledonian University, University of Stirling and Napier University.

The fundamental aim of the DEAL project is to enable people in employment and their employers to benefit from continuing education through work-based learning.

The project set out initially to analyse the potential for work-based learning, assessment and accreditation in a range of subject areas and at a range of levels from Access to post-graduate within specific companies. An additional aim was to identify the potential scope for more flexible delivery of qualifications which are relevant to the needs of employers and employees. In the achievement of these aims the project has developed a model for work-based learning which is built on the notion of partnership between employers and educational institutions. Within such partnerships work-based learning opportunities leading to recognised awards may be negotiated between the learner, the employer, the educational institution and, where appropriate, the professional body.

The DEAL project represents a continuation of the work of the participating institutions in the areas of learning contracts and the development of work-based learning opportunities (Marshall I and Mill M, 1993; Carmichael, 1992; Osborne et al, 1993; Scottish Applications of Learning through Experience (SCALE), 1992; Brodie et al, 1994). The project has also benefited from the experiences of many other recent initiatives in this area, for example the work of the Council for Adult and Experiential Learning (CAEL), the Learning from Experience Trust (LET), the Partnership Project at the University of Portsmouth (Lyons, 1993) and in particular the Accreditation of Social Services Experience and Training (ASSET) project at Anglia Polytechnic University (Maisch and Winter, 1992).

1.2 Work-based Learning through Partnership

A central aspect of the DEAL model is working in partnership. Through DEAL educational institutions and employers have joined forces to develop work-based learning programmes. These partnerships go further than traditional forms of cooperation with employers such as the secondment of employees onto taught courses, the placement of students within employment, and consultation on new taught courses. In contrast our employer partners have been involved in all aspects of programme design, including the provision of candidate support structures and assessment mechanisms. By including employers in active working groups, see Appendix A, it has been possible to incorporate the contributions of 'on the ground experts' into developments. It is at this operational level that the notion of partnership has been fully realised within DEAL.

1.3 The Partners

The three universities undertaking the DEAL project have formed partnerships with a number of employers of different sizes within both the public and private sectors. Glasgow Caledonian

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University has established a partnership with Strathclyde Regional Council to develop strategic work-based learning programmes within social work education and training. This partnership then widened to include Dumfries and Galloway Regional Council and smaller agencies from the voluntary sector. During the course of development strong links were forged with other educational institutions such as Cumbernauld College, Clydebank College, Langside College, Paisley University and the University of Strathclyde. Indeed the latter became an equal partner in the development of the BA in Post Qualifying Social Work which has now been validated at both Glasgow Caledonian University and the University of Strathclyde.

The University of Stirling formed a partnership with Zeneca Fine Chemicals Manufacturing Organisation, formerly ICI, in order to develop and pilot a Work-based Access Programme for chemical process operatives. This programme was further piloted in partnership with OKI (UK) Ltd and two smaller companies Tenma (UK) Ltd and VSEL Offshore.

In the east Napier University established partnerships with Coopers and Lybrand and Hewlett Packard in order to develop a work-based learning programme for Information Technology employees.

For further details of the outcomes of these partnerships see Section 2.

1.4 The DEAL Model

The DEAL model for work-based learning programmes has been considered in relation to four main groups; employers, employees, education institutions, and professional bodies. Each of these groups will have their own particular concerns which have been incorporated into the model. Their distinct roles have been highlighted in the summary below.

Design
- The education and training needs of the employer and the employees are analysed.
- These needs are translated into learning outcomes which are then grouped into modules.
- The modules are located at the appropriate educational level within existing or new work-based learning awards.

Implementation
- Employees, in negotiation with the employer and the academic institution, develop Action Plans which take account of:
- prior learning from experience;
- current opportunities for learning through work;
- in-house training courses; and
- resources from academic institutions.
- Employees are supported throughout the programme by a workplace supervisor, or mentor, and an academic tutor.

Assessment
- Employees compile portfolios of evidence of their learning as they work through the
- Assessment can involve both workplace assessors and academic tutors.
- The final assessment of portfolios for academic credit is carried out by the institution, and, where appropriate, for professional credit by the professional body.

1.4.1 The Design Stage

The identification of the needs of the employer and the employees is a crucial stage in the establishment of a work-based learning programme. It is important that senior representatives from the employer partners are fully involved in this process if long term needs are to be accurately identified in addition to short term goals. This analysis should consider the possible role of dual accreditation, that is, do employees wish to work towards a vocational qualification, or an award from their professional body, at the same time as an academic programme?

The next stage is the translation of the identified needs into learning outcomes. Clearly these outcomes must be capable of recognition within the 'structure of knowledge' of the educational institution if professional and academic credit are to be linked. The learning outcomes are then grouped into appropriate modules which may or may not match existing provision. Although the framework of existing awards are used whenever possible, new awards can be developed as appropriate. In the latter instance dual validation may be necessary in order to secure the approval of the professional body.

The emphasis on learning outcomes at the heart of the DEAL model is a conscious recognition of the need to separate the actual learning that has taken place from the particular learning opportunity that has been utilised. Such an approach acknowledges that a variety of different pathways may be appropriate for different individuals in different employment contexts. For example, the pathways appropriate to individuals within large organisations with extensive in-house training facilities are likely to be significantly different from those within small or medium-sized enterprises.

1.4.2 The Implementation Stage

The DEAL model aims to support and stimulate meaningful learning activity for candidates whilst encouraging them to take responsibility for their own learning. It builds upon the notion that reflection is the key to learning from experience. Within professional development it utilises the concept of the "reflective practitioner", a notion usually associated with the work of Argyris and Schon (1974). They argue that continuous professional development "requires developing one's own theory of practice under real-time conditions". The DEAL model supports such learning through providing opportunities for candidates to reflect critically and constructively on their work and performance. Thus the learning process must be related closely to the candidates employment context. Again in small organisations this may be a highly individualised process, while in large organisations we may see the development of 'well trodden' rather than individualised pathways.

The DEAL model encourages candidates to draw up an Action Plan which identifies their learning route for the achievement of the agreed outcomes. The Action Plan is derived through a process of negotiation with the employee, the employer and the educational institution. The agreed Action

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Plan should therefore reflect a consensus view of the most effective learning route for the individual's particular circumstances (Evans 1989). Where appropriate, the Action Plan can integrate the Assessment of Prior Experiential Leaning (APEL) with current experiential learning, in-house training inputs and resources from academic institutions. In short candidates are encouraged to achieve the learning outcomes because of, not in spite of, their workplace context.

The candidates are supported throughout the programme by a workplace supervisor or mentor and an academic tutor. The balance of support from each source depends on the nature and level of the particular programme. In general, however, the DEAL model promotes the notion of a support team who come together at key stages during the implementation of the action plan to review completed work and to help the candidate in preparing for future tasks. Depending on the nature of their role appropriate training must be provided for the workplace supervisor or mentor to ensure the quality of the candidate's learning experience.

1.4.3 The Assessment Stage

The DEAL model utilises the concept of a portfolio of evidence as a vehicle for assessment. Within their portfolios candidates must provide evidence for the achievement of each module outcome. This evidence is wherever possible related to the employment context of the individual candidate. Thus it is clearly the candidate's responsibility to draw together their own evidence into a coherent portfolio. The overall portfolio should contain an appropriate balance between evidence of practical work and evidence of reflection on that work: this is assessed on a criterion-referenced basis. Our experience in DEAL indicates that the process of gathering evidence is most efficient when planned learning, rather than prior learning, is being undertaken: thereby it occurs as candidates work through the programme rather than retrospectively.

Where the outcomes of the programme relate specifically to the candidate's own performance in their job, evidence from observation is usually required. This evidence from observation is assessed by a workplace assessor who has undertaken sufficient training to equip them for this role. For example within the BA in Post Qualifying Social Work the supervisor who observes the candidate's practice must have completed the Staff Development and Supervision Module which is accredited at M level. A particular focus of this module is the practical application of assessment criteria which reflect appropriate academic and professional standards.

The DEAL model aims to place work-based learning and its assessment firmly within the normal quality assurance procedures of the university. Thus portfolios are double marked, and examined by external examiners, before their assessment decision is considered by the assessment board for that programme. Therefore, rather than remaining a marginal activity, work-based learning becomes integrated into the mainstream of the institution's activities (Winter, 1994).

Clearly where dual accreditation is sought for a work-based learning programme the assessment procedures and quality assurance mechanisms of the professional body must be satisfied. In the case of the BA in Post Qualifying Social Work the candidate's portfolio is first provisionally assessed by a combination of workplace supervisor and academic tutor, it is then passed to another tutor, who has not been involved in supporting the candidate, for final assessment. An external examiner acting on behalf of the professional body then considers this assessment and awards professional credit as appropriate.

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1.5 The Benefits of the DEAL Model

The benefits of the DEAL model and work-based learning in general are summarised below. Clearly many of the advantages of the DEAL model derive from the relationship between the final programme, the needs analysis at the start of the process and the extensive use of formative evaluation. The direct relevance of a programme generated in this way is not only that it will result in an immediate impact on performance in the workplace but that the emphasis on constant re-evaluation of goals and methods will ensure the programme adapts to changing needs as they occur within industry. Indeed the programmes may have a multiple effect in that candidates increase both in confidence and understanding and adaptability. For institutions the model represents a means of increasing responsiveness and flexibility which is now central to the mission statements of many universities.

For employers:
- meets staff development goals for improved business performance and service delivery
- located in the workplace
- no replacement costs or costs reduced
- increases employee motivation
- increases employee retention
- updates skills
- adaptable to large or small businesses
- access to recognised quality assurance frameworks

For employees:
- opportunities to gain new qualifications
- credit gained for existing knowledge, understanding and skills
- opportunities to develop new knowledge, understanding and skills
- convenience of work-based study
- improved career prospects

For academic institutions:
- increased flexibility of provision
- widening access to new student groups
- opportunities to develop new approaches to teaching and learning
- opportunities to develop new approaches to assessment
- work-based learning within a quality assurance framework

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2. IMPLEMENTING THE DEAL MODEL

The DEAL model has been implemented by the three universities in partnership with a range of employers. Four work-based learning programmes have been developed using the model. These programmes span the educational continuum from the Access level through to the post-experience and postgraduate level. A brief overview of each programme is given below, and the availability of more detailed information is indicated.

2.1 The BA in Post Qualifying Social Work

2.1.1 *Project Partners*
This programme was developed by Glasgow Caledonian University in partnership with:
* Strathclyde Regional Council;
* Dumfries and Galloway Regional Council;
* The West of Scotland Voluntary Agencies Forum;
* Strathclyde University.

2.1.2 *Identified Needs*
The education and training needs of professionally qualified social workers and their employers were identified by the programme working group as:
* a programme to support continuing professional development;
* a work-based learning route incorporating APEL;
* identification of pathways to achieve the new Post Qualifying Award of the professional body, the Central Council for Education and Training in Social Work (CCETSW);
* dual accreditation of the programme (academic and professional credit).

2.1.3 *Background to the Programme*
Using the DEAL model a programme has been developed which enables qualified practitioners to continue their professional development through work-based learning. The programme is entirely based in the workplace and it actively utilises this environment for planned education and training. The programme is designed to support the development of the 'reflective practitioner', as described by Argyris and Schon (1974), by providing opportunities for candidates to reflect critically and constructively on their practice. The structure of the programme enables this process of reflection to be articulated and subsequently assessed. The programme utilises the work of the ASSET project of Anglia Polytechnic University (Maisch and Winter, 1992).

The workplace supervisors are a major source of support for candidates undertaking this programme. Therefore, in order to prepare supervisors for this extensive role, and their role as assessors, a Staff Development and Supervision Module has been developed. This module includes units on the Principles of Adult Learning, Assessment Strategies, Constructing Portfolios and Planning Staff Development. The module has been validated at M level (20 credit points) by Strathclyde University and is taught jointly with staff from Glasgow Caledonian University. The

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requirement that supervisors undertake an extensive programme of training is a vital component within the quality assurance mechanisms of the programme.

The BA in Post Qualifying Social Work has been validated at level three within the Scottish Credit Accumulation and Transfer (SCOTCAT) system, see Appendix B, by both by Glasgow Caledonian University and Strathclyde University. The programme has also been approved by CCETSW. Successful students will therefore receive a university degree and the Post Qualifying Award of the professional body.

2.1.4 The Programme
- The programme is entirely based in the workplace.
- It consists of 14 modules which support continuing professional development in General Social Work and in Child Care.
- Candidates undertake 7 modules to receive the BA degree and the Post Qualifying Award, usually over 2-3 years.
- Modules are written in terms of learning outcomes which embrace both the competences of practice and reflection on practice.
- Candidates must satisfy Core Assessment Criteria which define the academic and professional standards required by the programme.
- For each module candidates draw up an Action Plan which relates the module outcomes to their own work context and responsibilities.
- Candidates utilise a variety of learning opportunities including in-house courses, directed reading, discussion groups and 'reflection-in-practice' on their own work.
- Candidates are supported by a team consisting of a trained workplace supervisor and a university tutor. The main support is given in the workplace by the supervisor. Candidates also have access to a peer support group.
- Candidates produce a portfolio of evidence from their own work which demonstrates the achievement of each learning outcome. Examples of evidence include practice notes, letters, care plans, and a reflective analysis of their practice. Evidence must be linked to the Core Assessment Criteria.
- Candidates must be observed in practice by the supervisor on at least one occasion per module.
- Portfolio evidence is provisionally assessed by the tutor or, in the case of largely practice based evidence, by the supervisor.
- Final assessment is undertaken by a university tutor who has not been involved in supporting the candidate.
- The portfolio is then made available to the academic and professional external examiners.
- Successful candidates are awarded both the BA in Post Qualifying Social Work and the Post Qualifying Award of CCETSW.

2.1.5 The Candidate Experience
In preparation for their new roles within the programme 15 supervisors have now undertaken the Staff Development and Supervision Module.

Since the programme was validated in June 1994, 13 candidates have embarked on the programme.

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These candidates are currently working towards their first modules.

The above candidates and supervisors have in the main been drawn from Strathclyde Regional Council, although one candidate from the Catholic Care Consortium, a voluntary agency, was among the first cohort.

Some of these candidates have already reported that their work for the programme has had a beneficial effect on their practice by, for example, highlighting the need for creativity in their approach. A more extensive evaluation of the impact of the programme on practice will be undertaken shortly.

2.1.6 Further Information
If you wish to receive further information regarding the BA in Post Qualifying Social Work please contact: Fiona Reeve, Centre for Continuing Education, Glasgow Caledonian University, Cowcaddens Road, Glasgow, G4 0BA.

2.2 The Flexible Route to the Diploma in Social Work

2.2.1 Project Partners
This programme was developed by Glasgow Caledonian University in partnership with:
* Strathclyde Regional Council;
* Dumfries and Galloway Regional Council;
* The West of Scotland Voluntary Agencies Forum.

2.2.2 Identified Needs
The target group for this development consists of social care workers who hold an HNC in Social Care with a Scottish Vocational Qualification (SVQ) at Level 3 and who wish to become qualified social workers. The needs of this group and their employers were identified as:
* the need for greater numbers of qualified social workers;
* a work-based learning route to the intermediate stage of the Diploma in Social Work (DipSW) operated by the West of Scotland Consortium for Education and Training in Social Work;
* recognition of the learning involved in the HNC with SVQ in Social Care;
* approval of the route by the professional body CCETSW.

2.2.3 Background to the Programme
The starting point for this development was a matching exercise between the learning outcomes and assessment methods of the HNC with SVQ in Social Care and those of Part 1 of the Diploma in Social Work (DipSW) operated by the West of Scotland Consortium for Education and Training in Social Work. This exercise resulted in the identification of additional outcomes which candidates with the HNC and SVQ would need to achieve in order to demonstrate learning which was broadly equivalent to Part 1 and which could form the basis for progression to Part 2 of the Diploma. These outcomes were then grouped into modules using the DEAL framework.

In accordance with existing Diploma procedures, candidates who wish to undertake this programme are selected by their employer and an academic institution. In the case of the Flexible Route selected candidates are guaranteed a place at either Langside College or Strathclyde University for Part 2 of the Diploma provided they successfully complete the programme. Since these candidates are not yet operating as social workers, particular emphasis has been placed within the programme on the use of open learning materials which are supported by group work, guided by a tutor who is either a member of staff of the agency or of the academic institutions. These group sessions aim to draw upon the previous learning experiences of the candidates and enable them to relate their new learning to the social work setting.

Candidates on the Flexible Route are assessed according to the same criteria as, and by processes consistent with, Part 1 of the Diploma. This assessment process is currently channelled through the Accreditation of Prior Learning (APL) procedures of Langside College. The DEAL proposal for a Flexible Route to Part 1 of the Diploma was supported by West of Scotland Consortium for Education and Training in Social Work, a group consisting of employers and academic institutions. The Consortium then submitted the proposal for approval to the professional body CCETSW. Following approval by CCETSW the Consortium has established a Route Committee to oversee its operation and ongoing developments.

2.2.4 The Programme
- The programme is entirely based in the workplace.
- There are 6 compulsory modules including: The Law and Social Work; Social Work Practice and Values; Health and Disability Issues; People who are Offending; Poverty and Welfare Rights; and the Direct Practice Module.
- Modules are written in terms of learning outcomes.
- Candidates draw up an Action Plan for each module detailing how they intend to meet the learning outcomes.
- Candidates utilise a variety of learning opportunities in a group context including: open learning materials; guided group discussion; role play; reading lists; and existing in-house courses.
- Candidates are supported throughout the Flexible Route by a workplace supervisor. An In-house Co-ordinator also acts in a supportive capacity to both candidates and supervisors. All candidates will have access to a learning support group.
- Candidates prepare a portfolio of evidence of their learning. The portfolio for each candidate must contain: the DipSW Law Assignment; a Reflective Commentary which analyses their learning in relation to the non-law outcomes; an Integrative Practice Study which is based on the placement, and draws together the knowledge, skills and value base of Part 1 of the DipSW; and a Final Placement Report, containing an analytical account by the candidate of their placement experiences.
- Portfolio evidence is assessed by a tutor from the APL unit of the college/university with which the candidate is registered, and, either the In-house Co-ordinator, or a Practice Teacher.
- The assessment process is channelled through the APL unit of the college/university with which the candidate is registered, thus portfolios are subject to the quality assurance procedures of that institution.
- On successful completion of the Flexible Route candidates may progress to Part 2 of the DipSW.

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2.2.5 The Candidate Experience

Seven candidates, five from Strathclyde Regional Council and two from the Catholic Care Consortium, embarked on the programme in September 1994. These candidates have so far completed five of the modules and at the time of writing are undertaking the remaining Direct Practice Module.

The experiences of this initial cohort have indicated that the opportunity to work in groups has been an important factor in maintaining the motivation and progress of candidates. The individual support of workplace supervisors has also proved to be an essential element of the programme.

Candidates are already reporting that they are implementing ideas gained from the programme both in their own workplace and through the placement element which takes place in a different setting.

2.2.6 Further Information

If you wish to receive further information regarding the Flexible Route to the Diploma in Social Work please contact: Fiona Reeve, Centre for Continuing Education, Glasgow Caledonian University, Cowcaddens Road, Glasgow, G4 0BA.

2.3 The Portfolio-based Access Programme

2.3.1 Project Partners

This programme was developed by University of Stirling in partnership with:
- Zeneca Fine Chemicals Manufacturing Organisation;
- OKI (UK) Ltd;
- Tenma (UK) Ltd;
- VSEL Offshore.

2.3.2 Identified Needs

This programme was aimed at employees who lacked the formal entry requirements or confidence and self assurance for university study, but were unable to attend a conventional taught Access course, due to work commitments and varying shift patterns. For the programme to be successful in the eyes of the three participating groups (employers, employees and educationalists), it must not only address organisational development requirements, but also consider those of the learner as well. As can be seen below a congruence of personal and organisational needs existed. Their needs were identified as:
- development opportunities for those assuming greater responsibilities;
- the need for a progression route which builds on previous courses;
- a work-based route which would fit in with varying shift patterns;
- access to higher education;
- accreditation of their prior experiential learning.

2.3.3 Background to the Programme

When work began on the programme the initial project partner, Zeneca (formerly ICI) was experiencing considerable restructuring which included the introduction of a multi-skilling policy. As a consequence traditional semi-skilled manual workers would require additional management skills and knowledge to allow them to operate effectively in their new roles. In recent years Zeneca had introduced a programme which focused on technical skills at a relatively low level; however, the need for higher level less technical knowledge remained to be addressed. As a result of this technical programme the workforce had developed a positive attitude towards learning and requested further study. Thus it was decided that a Portfolio-based Access Programme should be developed to enable these employees to access degree study on a part-time basis.

For the second pilot cohort it was decided that participants should be drawn from organisations with decidedly different requirements to those of Zeneca. The first pilot had demonstrated that the model could be applied in the context of a large industrial manufacturing organisation, albeit that refinements were required in some aspects of the provision. Within the second cohort the project team wished to examine the feasibility of introducing the model to other manufacturing sectors, and to small and medium sized organisations. It is for these reasons that OKI, Tenma and VSEL Offshore were selected to take part.

The University of Stirling already provided a taught access programme that incorporated a significant degree of flexibility. While incorporating increased flexibility in terms of pace, timing and location of delivery was not unduly problematic, the accreditation of experiential work-based learning presented a more substantial obstacle. This process requires that the individual's own learning outcomes are recognised and accredited against the course structure. However, as Otter (1992) states, "a degree is currently described in terms of processes - three years full time study - rather than achievement, and as a result, notions of quality are based on the process, rather than the outcome". Thus to accredit experiential learning framed in terms of outcomes against a conventional course is problematic.

The first step in this process, therefore, involved the re-expression of the University of Stirling's taught Access course in terms of outcomes rather than inputs and processes. This analysis revealed generic intellectual skills which could be classified under three broad headings: personal effectiveness and critical reflection; collection and organisation of materials; analysis synthesis and review. Thus, the first stage of the programme required that candidates produce evidence that they had used or developed these skills in their work or leisure activities. In order to prepare these candidates for degree study, however, it was necessary to contextualise these skills within an academic framework. This process was facilitated during the latter stages of the programme by providing a series of seminar exercises as indicated below.

2.3.4 The Programme

- The programme is entirely based in the workplace.
- The generic skills required by the programme are incorporated into a general learning checklist (derived from Buckle (1987)).
- Candidates draw up an Action Plan for the first stage of the programme, detailing how they intend to provide evidence against the checklist.
- Candidates are supported throughout the programme by a workplace mentor. A university

tutor also acts in a supportive capacity to both candidates and mentors.
- Candidates prepare a portfolio of evidence of both their prior certificated and their prior experiential learning. The portfolio may contain: reports; minutes of meetings; accounts; time sheets etc. Candidates must explain how each piece of evidence demonstrates that they have developed the skills on the checklist.
- Each portfolio is double marked on a criterion-referenced basis.
- During the second stage of the programme candidates take part in two seminars in which they explore familiar work-based issues, such as managing change, contextualised within an academic framework from disciplines such as management science. An input on Study Skills is integrated into the first of these exercises. Following each seminar they submit an assignment which is double marked and graded by a university tutor.
- During the third stage of the programme candidates demonstrate whether they have internalised the generic skills by transferring the academic skills from the familiar disciplines to less familiar disciplines, eg. sociology and politics. Again participants attend two seminars and complete a written piece of work for each. The assignments are double marked and graded by university tutors.
- Successful candidates are guaranteed a place on the evening part-time degree at Stirling University.

2.3.5 The Candidate Experience

Of the initial Zeneca cohort of six, three completed the course gaining an Access certificate (two subsequently proceeding to a part-time degree at the University of Stirling). One candidate chose to complete a vocational award at Level 3 of the Training and Development Lead Body (TDLB) that was offered through the programme as an alternative or complement to the Access course. The remaining two candidates neither completed the programme nor gained any certification for their efforts. While it is unwise to draw conclusions from a small sample, the pilot did demonstrate that the concept was sufficiently robust to merit refinement and further testing.

An evaluative study of the first cohort, including those involved in managing the learning process within the company, revealed a number of relevant points. As might be expected the motivations for involvement in the programme were many and various. They did, however, cluster into five broad headings: articulation, recognition, access, career advancement, and personal development. The responses to two sections of the evaluation questionnaire addressing development and delivery of the programme confirmed that the timing of guidance is crucial. Candidates felt that support, information and mentoring must be available whenever and wherever required, and that high quality written material available throughout the programme would reduce time wastage and the risk of confusion and associated de-motivation. When asked to comment on the content and delivery of the programme the respondents were broadly satisfied. In particular Zeneca's training officer commented that "DEAL helped people see their workplace not just as a place of work but as a place of learning". As one candidate commented in his evaluation of the programme, "the portfolio made me view my work from a different perspective". Specific reference, however, was also made to the study skills element of the course highlighting its value to participants.

In the second year of the DEAL project a second pilot study took place. This pilot included a second cohort of Zeneca staff and, as indicated above, employees from OKI (UK) Ltd, Tenma (UK) Ltd and VSEL Offshore. This second pilot took into consideration a number of the points raised during the evaluative study, the principal changes to the delivery centring on the provision of guidance. During the first pilot the support came exclusively from university staff and, although

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they were generally available at the end of the telephone, such support did not seem to fully satisfy candidates. It was considered that this form of support, although useful, satisfied the needs of the participants for a short period of time. At certain stages of the programme participants required a large amount of encouragement and more extensive written information. In the second pilot participants were more fully briefed and supplied with more comprehensive written material during the initial stages of the programme, allowing them to make more informed choices, while fully understanding their commitment to the pilot. The appointment of a workplace mentor, drawn from the employers' workforce, ensured more regular support was available.

While the second pilot was more extensive, involving a larger number of participants, eleven, chosen from four companies, the candidate results are nearly identical. Four of the participants left the programme prior to completion, and of those remaining five had gained an Access certificate, and either had, or were about to, enrol in a degree programme at the time of writing this report. The remaining two of the pilot were yet to complete and may join the numbers from this project accessing higher education.

2.3.6 Further Information
If you wish to receive further information regarding the Portfolio-based Access Programme please contact: Richard Dockrell, Educational Policy and Development, Airthrey Castle, University of Stirling, Stirling, FK9 4AW.

2.4 A Work-based Learning Programme for Information Technology Employees

2.4.1 Project Partners
This programme was developed by Napier University in partnership with:
- Coopers and Lybrand;
- Hewlett Packard.

2.4.2 Identified Needs
This programme was aimed at Information Technology employees who lacked any formal qualifications in this area but who had built up considerable skills and knowledge through their work. This client group was unable to attend conventional taught courses on a regular basis due to full-time work commitments. Their needs were identified as:
- a work-based learning route;
- accreditation of their prior experiential learning;
- multiple entry and exit points.

2.4.3 Background to the Programme
The unprecedented development and expansion of Information Technology-based industries in the nineteen-eighties saw the rapid career development of groups of non-graduate employees with technical skill and managerial ability. Such employees had gained substantial experiential learning

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but had identified shortcomings in the theoretical underpinning of their knowledge and practice, and in the wider conceptual frameworks in which such knowledge is situated. Napier University was approached by training managers in Coopers and Lybrand and Hewlett Packard with regard to the provision of an appropriate part-time degree programme, which could address these learning needs as far as possible through a work-based learning route, whilst offering formal recognition of the employees past experiential learning.

This request came at a time when much of the University's provision was undergoing radical revision and redesign to offer greater flexibility, choice and access. The key components of the revised provision in relation to the needs of the Information Technology employees were a modular programme couched in terms of student learning outcomes, a Credit Accumulation and Transfer Scheme (CATS) and a centrally approved facility for the Assessment of Prior Experiential Learning (APEL).

2.4.4 The Programme
* The programme is based on the use of student driven learning contracts.
* Candidates register within the University CATS framework to negotiate and receive approval for a recognised programme of study.
* All modules are framed in terms of learning outcomes.
* All credited learning must be mapped on to approved Napier University student learning outcomes.
* Learning credit can be gained through a combination of negotiated work-based programmes of study, accreditation of prior learning, exemption credit, part-time on-campus modules and open learning.
* Each candidate produces a portfolio of diverse evidence for both their off-campus and prior experiential learning.
* Guidance on portfolio compilation is provided by an APEL Counsellor.
* Assessment of all portfolio evidence undertaken by specialist subject assessors.
* Candidates are supported throughout their studies by a workplace mentor and a personal tutor within the University.

2.4.5 The Candidate Experience
At Napier a significant factor in the establishing of appropriate learning programmes was the approval of an open learning route for CATS students who are now eligible to be enrolled on a Combined Studies Degree in Computing and Business Information Management. In early discussions with the participants at Coopers & Lybrand, it became clear that not all modules within a Computer Science degree were appropriate. The Project Team made the decision to test sample modules from within the new Business Information Management degree and a package of Level 1 learning outcome modules was offered to Cooper & Lybrand participants. It was felt that a combination of modules from two named awards would be more appropriate to the needs of individual learners. Working within the SCOTCAT framework allowed individuals to overcome the limitations of a 'named route' and to tailor their study programme much more closely to their work place environment.
However, in practice the BSc undergraduate programme was found to be inappropriate since it is a broad-based course providing an education for graduates taking up employment across a wide spectrum of employers. In contrast, our work-based learners had by their career choice and

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employment gained specialised computing skills and educational requirements. For example a systems designer developing an aircraft simulation system needs and uses quite different skills than someone developing information systems for an insurance company. These specialised areas of learning could be accommodated more easily within the post-experience M level. A revised CATS MSc enabled the inclusion of study programmes identified as appropriate for an information technology environment. These courses are modular in nature and offer a wide variety of subject material directly tailored to specific workplace settings. Fortunately, we have been able to transfer existing DEAL students on to suitable study programmes without any loss of credit already gained.

Within this revised framework we were able to address the need for flexibility within learning programmes, due to the very fast-changing technology within the working environments of our pilot students. We were also able to resolve concerns regarding APEL. Initially, the intention was to accredit any prior learning before devising a learning programme. For those work-based students with substantial experience, this meant getting bogged down in a lot of portfolio building before any of the 'new learning' they had signed up for could begin. This has now been addressed within the new framework.

2.4.6 Further Information
If you wish to receive further information regarding this programme please contact: Ray Land, Education Development Unit, Napier University, 219 Colinton Road, Edinburgh, EH14 1DJ.

3. IMPLEMENTING THE DEAL MODEL WITHIN SMEs

3.1 Introduction
The preceding section of this report describes the development of the DEAL model in larger organisations. In the latter stages of the project (final six months) it was felt that the application of the work-based learning could be applied profitably to small to medium-sized enterprises (SMEs).

There are perceived difficulties in encouraging SMEs to undertake training and development of their employees. However, evidence for such beliefs is mainly anecdotal as relatively little is known about the training and human resource management issues in smaller businesses (Johnson & Gibbins 1991). More recently (Storey & Westhead 1994) have argued that it is anyway difficult to isolate the impact that training has upon small company performance.

However, Johnson & Gibbins (1991) do provide evidence which indicates that firm specific and on-the-job training dominates human resources development in SMEs, that external courses are often seen as inappropriate and that few firms see an explicit link between training and business development.

3.2 Rationale
It would appear that practices developed during the DEAL project would help towards overcoming some of the problems that SMEs face. Organisational needs could be met flexibly and with minimum disruption and at the same time the longer term needs and aspirations of employees met also.

It was recognised that there could be specific differences between implementation in larger and smaller organisations and that research about how these should be addressed would be an integral part of the SME stage. Amongst such issues identified were:
- how can the benefits of work-based learning and accreditation be translated into bottom-line improvements for SMEs?
- can the flexibility offered by DEAL to employers/employees be accommodated cost effectively by individual university departments?
- how readily will other departments, not involved in the initial projects, absorb and accommodate the principles of DEAL which will be necessary if the ideas are to be promoted to a wider employer base?
- support for participants on DEAL programmes is vital; can methods be devised to provide this support across a range of smaller firms?
- is there an optimum size of SME for whom DEAL would be more appropriate?
- if DEAL is to be user lead, how do we persuade SMEs to tell us what they want; is it better done through organisations made up of supporting SMEs?

3.3 Strands of the SME Stage
The SME stage of the DEAL project had three distinct strands.

a. Identification and implementation of partnerships between SMEs and educational institutions which parallel the existing DEAL programmes in large organisations and monitoring of the results.

b. Research into the likely usage and promotion of DEAL within SMEs through support organisations, eg Local Enterprise Councils, Enterprise Trusts, Trade Organisations.

c. Identification and then encouraging involvement of departments within the three participating institutions which had expertise in areas likely to be of benefit to SMEs and employee development using work-based learning.

3.4 Results

OKI (UK) Limited has a policy of working with smaller business in the Cumbernauld area and offering support in a number of ways. As outlined in section 2.3 they viewed the Access Programme (University of Stirling) as being of benefit to themselves and indicated to a number of smaller companies that they were happy if employees joined the OKI Access group.

In the event two companies Tenma (UK) Limited and VSEL Offshore did so. One employee from each company participated in the programme using OKI facilities and the OKI mentor. The 'hub' principle of supporting SMEs in this way was successful. Both participants were awarded Access certificates and have gone on to part-time higher education. The usefulness of the larger company was acknowledged but there was still a need for a champion (see Section 4.3) in the smaller firms and some in-house mentoring was necessary.

Many SMEs have computing operations and could welcome development of employees in Information Technology. It was agreed that the Department of Business Information Management (Napier University) would consider offering and delivering modules by work-based learning to smaller organisations with whom they already worked on undergraduate placements. Eight companies were approached and one took the opportunity to examine the appropriateness of the programme for their computer managers. However, whilst one manager was keen to proceed difficulties arose over the cost of providing assessment and developing the programme for one individual. These were not resolved within the timescale of the project.

Discussions were held with ten support organisations. Interest and acceptance of the principles were shown by the vast majority. Three departments previously uninvolved were also approached and two areas for development identified, Business Information Management (Napier) and Energy and Environment (Glasgow Caledonian). There are therefore indications of the potential for further development of this work.

3.5 Conclusions.

a. With a suitable large firm partner SMEs can undertake successful work-based learning and move employees into higher education. In-house mentoring and support is still required however.

b. Recruiting smaller companies is a time consuming and therefore costly process but DEAL does appear to interest support organisations as a potential aid in SME development.

c. University Departments have to be able to see the benefits to themselves, as well as to the SMEs, in participating in DEAL type activities.

d. There are cost implications for developing the model in smaller firms undertaking work-based learning. Satisfactory ways of meeting this problem, for example through cooperation with larger companies must be devised if this work is to be developed.

Note:
The Department of Employment and Forth Valley Enterprise are now funding a work-based learning project in smaller companies (the LISC Project) managed by the Department of Education Policy and Development at the University of Stirling and building on the work of DEAL in SMEs (see Osborne et al, 1995).

4. CRITICAL ISSUES FOR THE DEAL MODEL

4.1 Lifelong Learning

In recent years the rapid progress of technological change, coupled with economic uncertainties and recession have led to the re-evaluation of traditional career patterns within the UK. Many commentators such as the TEC National Council (1994) have argued that employees can no longer look forward to a secure job for life performing one particular job role. Instead they are being encouraged, by the government amongst others, to engage in re-skilling, to diversify and develop in order to ensure their own future employment. Thus employees are being encouraged to change their views of education and training from considering it as a once in a lifetime preparation for work to viewing it as an integral and continuing part of work itself. Above all as Taylor and Spencer (1994) note it is a "strategic aim of the present government"... to promote ... "individual interest in and responsibility for 'economically orientated vocational learning'". It is also recognised in work parallel to that of Taylor and Spencer (1994) that employer encouragement of employees' aspirations to pursue learning can be a vital component in achieving these ends (Metcalf et al, 1994).

The development of new work-based learning routes may be one means by which these aspirations can be met. The DEAL project has certainly benefited from this increased emphasis on learning at work. Both employers and candidates have been keen to link up with the collaborating universities in order to place such lifelong learning within a structure which is not only coherent in itself but also leads to recognised awards. Candidates on our programmes have been particularly keen to cooperate in schemes that both enable them to gain recognition of their existing learning through APEL and to progress with further structured work-based learning.

4.2 The Nature of Academic and Employer Partnerships

The notion of partnership is an essential feature of the DEAL model. We recognise that the development of an effective work-based learning programme requires the active participation of representatives from a number of traditionally distant, or even hostile, cultures. To some extent there remains in existence an academic/employer divide with preconceptions on both sides leading to misapprehension and distrust. Employers have often accused the academic community of being unresponsive, elitist and even irrelevant.

In their turn academics have assumed that employers are largely unconcerned with education and learning and that they value the cheapest short term solution over quality. There are also concerns that work-based programmes have a narrow intellectual base and that in certain instances they are no more than a crude validation of existing skills based on an unsophisticated behavioural model. Such a perception is reflected in assertions that universities engaged in such initiatives are acting as 'degree mills' and are doing nothing to develop the workforce. Above all academics fear that employers wish to interfere with academic freedom. While these views are not universally held, they do represent widely shared opinions.

Clearly these attitudes have not prevented many fruitful attempts at cooperation between employers and academics. Employers have become involved in education and learning by sponsoring employees on courses, by resourcing university tuition in the workplace, by providing placements for university students and by advising on new course proposals. However, the development of a

relevant work-based learning programme requires more than these levels of cooperation, it requires the real understanding that can be established between the two parties working in partnership. Not only will employers have an important role in designing a curriculum that is relevant to the needs of the employee and the employer but they may also share key responsibilities in areas such as candidate support, the provision of learning opportunities and assessment. The loss of control that academics fear from working with employers could to some extent become their opportunity to learn from the workplace, and to utilise this expertise to the benefit of all students, both work-based and on-campus. The particular role of the academic will be to help provide an coherent framework for learning within the workplace, which can articulate with present university structures, in particular the quality assurance procedures, and enable employees to gain recognised awards.

At an operational level the DEAL project has brought together representatives of both cultures into active working groups. This approach demonstrates the willingness of higher education to be more responsive to the needs of an increasingly important market, the corporate customer. Thus, university provision is gradually altering its focus from one that has overwhelmingly concentrated on a supply side approach. Being needs driven and demand influenced (though not led) in higher education is becoming more acceptable. It follows that, whilst an initial programme framework may be proffered by the academic institution, it must be tested against the reality of the employment context. Our employer partners have been invaluable, not only in pointing out the difficulties of proposals, but also in identifying where existing or new in-house procedures may be helpful. They have also encouraged the team to re-evaluate existing university procedures, leading to increased flexibility where appropriate. However, they in turn have developed an understanding of the importance of university quality assurance procedures in assuring the validity of the awards. Furthermore attitudes to development are altering; employers are increasingly more comfortable with the view that development in the workplace must be considered more broadly than merely skill acquisition for a short term quick fix. Thus contact between the two cultures has not only benefited the development of new work-based learning programmes, but also contributed to the breaking down of traditional barriers.

4.3 The Role of 'Champions'
Clearly such an approach requires that the employer partners are committed and motivated to succeed. Throughout DEAL we have been fortunate in receiving that commitment from our partners. Our experience has also highlighted the importance of identifying influential champions from employment who are able to promote and implement change within their own organisation. Within the workplace a senior manager may provide direction to development by ensuring that the work-based learning programme is relevant, not only to today's needs, but to future company policy. Since work-based learning involves utilising the skills and abilities of a range of staff throughout the organisation, for example in mentoring and assessing candidates, it is vital that time and resources are seen to be guaranteed at a senior level. Indeed the active commitment of senior staff will be important in ensuring the credibility of the programme for both learners and line managers.

4.4 What Types of Employers are Interested in DEAL?
A number of employer partners have become involved in DEAL during the first two years of the project ranging from large private and public sector concerns to small and medium sized

enterprises. One common feature of these employers appears to be their positive attitude to education and training in general, for example some companies were Investors In People or working towards that award. In the case of Zeneca this positive attitude prevailed despite the major restructuring which occurred as a result of its de-merger from ICI. Throughout this period the company continued to participate in the Portfolio-based Access Programme.

In the case of the larger employers DEAL was able to utilise existing staff development mechanisms such as company mentoring schemes or in-house training courses. Where no established mechanism existed to support the programmes our employer partners were willing to assist in developing new in-house procedures. As we have noted in Section 3, in our work with smaller employers we have to some extent utilised a 'hub' approach. Smaller companies such as Tenma have linked up to a larger local company, in this case OKI (UK) Ltd, for mentoring and peer group support. Within social work the small voluntary agencies have retained their own support mechanisms whilst utilising particular training opportunities within Strathclyde Regional Council.

4.5 Work-based Learning and the Candidates

4.5.1 Work-based Learning and Access to Higher Education

The DEAL Project has shown that opportunities exist to develop work-based learning programmes at a range of levels from access to post-qualifying, in a range of very different occupational settings, and involving a number of different disciplines. The Portfolio-based Access Programme has demonstrated the opportunities to develop new and more flexible access level provision for returners to education. The flexible route to the DipSW, and the work-based learning programme for information technology employees, have shown how new routes to qualifications can be provided for those who have reached a plateau, which is limiting further career development. The BA in Post Qualifying Social Work has provided the opportunity to develop post-qualifying programmes, which can contribute to the continuing professional development of the participants. At a time when the importance of opening up new flexible learning opportunities within higher education has become a major issue in national and institutional policy, DEAL has shown the potential of work-based learning for people in employment, who have often in the past been severely limited in terms of options for further development.

4.5.2 Barriers to Participation

While work-based learning has this potential to widen access it must also be recognised that there may be barriers to participation. In the first place employees need the support of their employers if they are to have the opportunity to participate in these programmes. While the employers involved in the DEAL Project were all very supportive in this respect, they were clearly a self-selecting group, with a strong commitment to the development of education and training policies. This commitment is clearly not shared by all employers, and there are dangers that opportunities associated with work-based learning will therefore not be equally available to all employees. In particular it seems likely that large organisations, with well developed training policies, will be most likely to participate in this type of programme, while the smaller SMEs, with less resources, will find participation difficult. In response to these problems we have sought to develop strategies to involve SMEs, and these have been outlined in Section 3.

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Secondly, it is clear that even when opportunities for participation are provided not all employees respond positively. For example, in the Portfolio-based Access Programme it has proved difficult to attract as many shop floor workers as initially hoped, with most coming from clerical or supervisory positions. While our systematic knowledge regarding the motivation of participants is limited, a number of factors have been identified as being of importance in discouraging participation. Firstly, some employees may not be interested in the opportunities provided, perceiving them to be of value in terms of the training needs of their employers, but of limited value in terms of their own personal development. Secondly, in some cases, employees may need considerable support and encouragement if they are to embark on what they may perceive as an ambitious and demanding course of study, particularly if their history of prior achievement within the formal educational system has been limited. Thirdly, non-participation of employees may be due, in part, to the fear of failure. Clearly candidates undertaking work-based learning risk opening up their work practices to the scrutiny of others, including assessors from an unfamiliar academic world. They risk not meeting the standards of the programme and the subsequent loss of self esteem that may result. In particular, they risk losing the confidence of their employer, and possibly moving from a position of safety within the organisation to that of uncertainty. Finally some employees may be keen to participate in the work-based programmes provided, but may feel that they will be given insufficient time by their employers to make the opportunity a reality, particularly if they also have significant domestic commitments.

4.5.3 Candidate Support

Candidate support is a crucial element within the DEAL model. The learner centred approach which is a key feature of all of the DEAL programmes also requires that candidates are able and willing to take responsibility for their own learning. Time and effort will be needed for action planning and evidence gathering on an individual basis so it is essential that candidates understand the nature of this approach at the outset. While many of our candidates have been attracted to the programme precisely because of this individual approach, some have found the transition to this approach difficult. As indicated in Section 1.4.2 we have tried, wherever possible, to promote the use of a support team made up of a university tutor and a workplace mentor or supervisor. Thus the responsibility for support may vary between the supervisor/mentor and tutor according to the nature of the programme. Within one employment setting, Strathclyde Regional Council, the use of a supervisor within the programme has provided an opportunity for that organisation to re-emphasise the existing role of line managers in promoting staff development.

Work-based learning candidates face problems which are distinct from those of the more traditional campus-based university population, including mature students. Their difficulties are more akin to those experienced by candidates involved in open and flexible learning. For example, support has focused on helping candidates to match their work-based learning to the outcomes of the programme. Candidates also seek guidance on presenting their evidence in portfolio form, and in particular on the level of analysis required within the portfolio. The two problems of lack of familiarity with the discipline and lack of experience with the process of evidence gathering and assessment were addressed in the Portfolio-based Access Programme by identifying two distinct mentor functions, the "process mentor" and the "subject mentor". While both functions were initially provided by the academic institution, it was the practice to encourage employers, wherever possible, to adopt one or both of the mentoring functions as the project progressed.

Since the programme to some extent focuses on the individual another important aspect of support is to ensure that the candidate does not feel isolated in the workplace. In some cases this has been achieved by bringing candidates together for group discussions on particular aspects of the programme or by forming peer support groups which are directed by the candidates themselves. The latter mode of support has proved particularly helpful to candidates undertaking the BA in Post-qualifying Social Work since they are working in a diverse range of settings spread throughout Strathclyde Region.

4.5.4 Observable Effects on Candidates

At this stage it is difficult to report on the full effects on employees of their participation on the DEAL programmes. Initial impressions indicate that candidates have to some extent experienced 'widening horizons' as a result of undertaking the programmes. As Charlie Campbell one of the first Zeneca cohort on the Portfolio-based Access Programme commented "the portfolio . . . made me view my work with a different perspective". Within the BA in Post Qualifying Social Work, candidates are already reporting that their work for the programme is encouraging them to take a more creative approach to their practice. In addition the DEAL programmes with their emphasis on individual portfolios of learning, including APEL portfolios, appear to have a confidence building effect on successful candidates as they review the knowledge and skills that they already employ within their work. Four of the successful candidates from the Portfolio-based Access Programme have enrolled on degree programmes within the University of Stirling. Thus, participation on a work-based learning programme has for some candidates provided a stepping stone to further learning. It remains to be seen in what ways employers capitalise on these changes.

4.6 Work-based Learning and Academic Institutions

Since the traditional focus of the university sector has been the education of school leavers work-based learning has been viewed as a marginal activity, if indeed it was considered to lie within the remit of these institutions at all. Although universities often incorporated periods of work experience into vocational courses in many cases no learning objectives were set and the learning that may have resulted was not assessed. In recent years, however, a number of factors have led universities to re-consider the role of work-based learning within their institutions. The new emphasis on lifelong learning mentioned above and the increasing numbers of mature students applying to university are just some of the developments that have led to new interest in this area. Whilst many institutions wish to broaden their activities to include aspects of work-based learning there remain concerns regarding the maintenance of standards, the involvement of outside bodies in degree programmes and the place of competence within the university system.

The DEAL project provided a forum for the participating institutions to explore these issues and to arrive at solutions which are responsive to their different needs and concerns. For example, within the different DEAL programmes a broad view of competence is employed which requires that candidates demonstrate not only the ability to perform tasks, but also an understanding of why particular actions or strategies were successful. Within those programmes operating at the higher undergraduate levels, for example the BA in Post Qualifying Social Work, core assessment criteria which emphasise the importance of traditional university requirements such as analysis and synthesis have been used to map out the relationship between work and university learning.

The project has facilitated the development of procedures which bring work-based learning within the mainstream of institutional activities. In this respect the notion of a champion for work-based learning is also relevant to the university context. If work-based learning programmes are to achieve and maintain their credibility within the institution and with employers, it is essential that they are seen to be supported and valued by the universities themselves. Thus senior staff in the institutions have a key role in promoting and facilitating the development of work-based learning programmes.

One important aspect of the project is that it has resulted in new and stronger relationships between the institutions. At a more local level the project working groups have acted as a link between different university departments and faculties, drawing expertise into the groups as necessary. Thus in some ways DEAL acted as a catalyst for change, pushing forward the debate both within departments and on an institutional level.

4.7 Dual Accreditation

As we have seen it is within the design stage of the DEAL model that the question of dual accreditation should be addressed. Clearly it is important to identify at an early stage whether employers and employees wish to obtain both academic and professional credit for the work-based learning programme. We have found that where dual accreditation is desired the relative importance of the two awards to employers and employees varied. The former were more interested in linking the programme to a framework of professional credit which they believed could be more easily related to organisational need, whilst the latter were keen to gain an academic degree which would be recognised more widely.

When pursuing dual accreditation for the BA in Post Qualifying Social Work the project team had to be able to work within the different structures of the academic and professional bodies. We found that many features were common to the two frameworks such as the use of similar credit accumulation and transfer schemes and the inclusion of APEL procedures. The concept of the reflective practitioner was also familiar to both audiences. Indeed the use within the programme of learning outcomes which embraced both practice and reflection on practice was welcomed at both professional and academic validation. These outcomes were designed to be used in tandem with Core Assessment Criteria which embraced both academic and professional standards. Thus the programme was able to provide a workable academic and professional model of learning. It may be interesting to note that, within the context of a general Scottish Degree, the use of criterion referenced assessment was not a concern at academic validation.

However, despite large areas of commonality there were also considerable differences. For example, the professional body were keen to impose an entry requirement based on the possession of two years experience, whereas the academic institutions were more concerned with the individual candidates' ability to benefit from the programme. Another area of concern for the professional body was the strong partnership which had been formed between the institutions and the largest employer, Strathclyde Regional Council. With their wider view of the professional context, they were concerned to ensure that other employers participated equally in developments. In contrast, at academic validation the panel were reassured by this close relationship, since they felt it helped to ensure that the candidates received the in-house support they required. Despite these differences our experience has been that dual accreditation is possible, and that the benefits for candidates and employers are considerable.

More significant problems were encountered when developing the Flexible Route to the DipSW. During the course of developments the professional body CCETSW began to review the structure of the Diploma itself. The effects of this review on the programme were numerous, for example the postponement of an access with credit scheme for the duration of the review caused a major redesign. Thus, when seeking professional accreditation, the team had to accept that major changes to the programme structure could result from decisions made outwith the institution.

4.8 Quality Assurance within Work-based Learning

As we have noted, the DEAL model aims to move work-based learning from the margins of institutional life into mainstream provision. An essential prerequisite for this transition is to ensure the credibility of work-based learning both internally and externally. All parties concerned with implementing work-based learning, candidates, employers and university staff alike, must have confidence in the programmes and in particular in their quality assurance procedures.

In moving into the mainstream work-based learning can benefit from the existing institutional model of quality assurance. For example, the use of external examiners has proved particularly helpful in establishing clear standards for the assessment of portfolios within the Individual Pathways Project (Brodie et al, 1994). The DEAL work-based learning programmes have also adopted a policy of second marking where this is normal university practice. However, these institutional models may have to be augmented to suit the particular conditions of work-based learning. For example, guidelines regarding the verification of evidence will be of particular concern when examining portfolios of evidence. Despite their scarcity within mainstream provision, the use of explicit assessment criteria which define the standards required by the programme have proved helpful to candidates and assessors alike. Thus institutional models of quality assurance may in turn benefit from the lessons of work-based learning.

The importance of appropriate training for supervisors or mentors in ensuring the quality of the learning experience became clear when implementing the DEAL model. All supervisors and mentors were briefed for their work within the programme. However, where they provide the main focus of support for candidates more extensive training was required. For example, within the BA in Post Qualifying Social Work, the supervisor's role is both to support candidates and to act as the assessor of evidence from observation. Therefore, in order to ensure that the quality of support received by candidates, and that the standard of assessment was satisfactory, it was essential that all supervisors undertake a M level module which provided training for these new roles. The group work within this module also provided an opportunity for supervisors to discuss the tensions inherent in combining these two roles. The provision of training of this nature was an important feature of our success at academic and professional validation. In other contexts, the structure of the Training and Development Lead Body (TDLB) awards may be helpful in setting the standards for workplace education and training.

By combining existing institutional quality assurance procedures with new policies designed for work-based learning, and by providing training which ensures the quality of candidate support, the DEAL model avoids the use of some of the more cumbersome procedures associated with the vocational qualification movement. This streamlined process attracts the support of employers and employees who wish to both avoid an overtly bureaucratic assessment process and to link up with accepted standards.

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APPENDIX A

THE DEAL STEERING COMMITTEE

David Vass	**Zeneca Fine Chemicals Manufacturing Organisation - Chairperson**
Gerry Devlin	Scottish Wider Access Programme - West (to February 1994)
Myra Duffy	Scottish Wider Access Programme - West
Richard Dockrell	University of Stirling
Val Edgar- Neville	Napier University
Tessa Fenoughty	Glasgow Caledonian University (SIPS)
Jim Gallacher	Glasgow Caledonian University
Brendan Harris	Strathclyde Regional Council
Brian Knights	Scottish Wider Access Programme - West (from February 1994)
Janet Laurie	SCOTVEC (from 1993)
Ray Land	Napier University (from May 1993)
Robin Magrath	Scottish Enterprise
Iain Marshall	Napier University (to May 1993)
Margaret Mill	Napier University (to May 1993)
Peter Neal	DEAL Project Officer - SMEs (from December 1993)
Mike Osborne	University of Stirling
Fiona Reeve	DEAL Project Officer (from April 1993)
Keith Scott	Zeneca Fine Chemicals Manufacturing Organisation
Norman Sharp	Higher Education Quality Council
Dorothy Welch	Scottish Wider Access Programme - East
Ruth Whittaker	Glasgow Caledonian University
Bill Yule	Glasgow Caledonian University

THE DEAL ACCESS WORKING GROUP

Mike Osborne	**University of Stirling - Chairperson**
Gerry Devlin	Scottish Wider Access Programme - West (to February 1994)
Myra Duffy	Scottish Wider Access Programme - West
Richard Dockrell	University of Stirling
Brian Knights	Scottish Wider Access Programme - West (from February 1994)
Elizabeth Lister	Scottish Wider Access Programme - East
Fiona Reeve	DEAL Project Officer (from April 1993)
Keith Scott	Zeneca Fine Chemicals Manufacturing Organisation
Dorothy Welch	Scottish Wider Access Programme - East

THE DEAL SOCIAL WORK WORKING GROUP

Norman Sharp	**Higher Education Quality Council - Chairperson**
Jim Adam	Paisley University (to April 1993)
David Batson	Dumfries & Galloway Regional Council
Ian Brodie	Glasgow Caledonian University
Kate Cameron	Strathclyde University
John Campbell	Strathclyde University
Mary Coles	West of Scotland Consortium For Education and Training in Social Work
Theresa Cowe	Strathclyde Regional Council
Gerry Devlin	Scottish Wider Access Programme - West (to February 1994)
Liz Fuller	Strathclyde University
Jim Gallacher	Glasgow Caledonian University
Brendan Harris	Strathclyde Regional Council
Bryan Healy	The Glasgow Council for Voluntary Services
Andrew Hosie	Strathclyde University
Dennis McCullough	Strathclyde University
Lea McKay	Paisley University (from April 1993)
Stewart Moore	Clydebank College
Barbara Nelson	Clydebank College
Fiona Reeve	DEAL Project Officer (from April 1993)
Christine Ross	Commission for Pastoral & Social Care
Sally Smith	Cumbernauld College
Ruth Whittaker	Glasgow Caledonian University
Sandy Fraser	Strathclyde Regional Council (to April 1993)

THE DEAL EMPLOYERS' PANEL

David Vass	**Zeneca Fine Chemicals Manufacturing Organisation - Chairperson**
Richard Dockrell	University of Stirling
Jim Gallacher	Glasgow Caledonian University
Ray Land	Napier University (from May 1993)
Ingrid McClements	Glasgow Council for the Voluntary Sector
Martin McCrindle	OKI (UK) Limited
Robin Magrath	Scottish Enterprise
Peter Neal	DEAL Project Officer - SMEs (from December 1993)
Fiona Reeve	DEAL Project Officer (from April 1993)
Norman Sharp	Higher Education Quality Council

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THE DEAL PROJECT TEAM

Norman Sharp	Project Coordinator, June 1992 - Jan 1993
Jim Gallacher	Project Coordinator, Jan 1993 - June 1994
Mike Osborne	Project Manager, University of Stirling
Ruth Whittaker	Project Manager, Glasgow Caledonian University
Margaret Mill	Project Manager, Napier University (to May 1993)
Ray Land	Project Manager, Napier University (from May 1993)
Richard Dockrell	Assistant Project Manager, University of Stirling
Fiona Reeve	DEAL Project Officer (from April 1993)
Peter Neal	DEAL Project Officer - SMEs (from December 1993)

APPENDIX B

The SCOTCAT Framework
The SCOTCAT framework embraces all of the higher education institutions in Scotland. The framework has been established in recognition of the need for a more flexible and open system of higher education in Britain. The underlying principle on which it is based is that appropriate learning wherever it occurs, provided it has been or can be assessed, should be given credit towards an academic award. It is therefore an important framework through which the transfer of credit may take place between higher education institutions. It also includes a general agreement on credit transfer with the Scottish Vocational Education Council (SCOTVEC). Additionally guidelines are available on the general credit tariff relating to a variety of professional qualifications.

The SCOTCAT frame work utilises the following general tariff.
- 120 Scottish credit points at level SD1 can lead to the award of a Certificate of Higher Education.
- The addition of 120 Scottish credit points at level SD2 can lead to the award of a Diploma of Higher Education.
- The addition of 120 Scottish credit points at level SD3 can lead to the award of a degree.
- The addition of 120 Scottish credit points at level SD4 can lead to an Honours Degree.

Postgraduate Awards are based on credit awarded at M level.
- 60 Credit points at M level can lad to the award of a Postgraduate Certificate.
- 120 Credit points at M level can lead to the award of a Postgraduate Diploma.
- 180 Credit points at M level can lead to the award of a Masters Degree.

It is important to stress that each individual institution is responsible for its own specific credit accumulation and transfer arrangements in relation to the SCOTCAT framework. All decisions relating to admissions to a particular institution are therefore the sole responsibility of that institution

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APPENDIX C

Acronyms

APEL	Assessment of Prior Experiential Learning
APL	Accreditation of Prior Learning
ASSET	Accreditation of Social Services Experience and Training
CAEL	Council for Adult and Experiential Learning
CATS	Credit Accumulation and Transfer Scheme
CCETSW	Central Council for Education and Training in Social Work
DEAL	Developing Employment-based Access to Learning
DipSW	Diploma in Social Work
LET	Learning from Experience Trust
LISC	Learning in Smaller Companies
SCALE	Scottish Applications of Learning through Experience
SCOTCAT	Scottish Credit Accumulation and Transfer
SCOTVEC	Scottish Vocational Education Council
SHEEC	Scottish Higher Education Employers' Collaboration
SME	Small and Medium sized Enterprises
SVQ	Scottish Vocational Qualification
SWAP	Scottish Wider Access Programme
TDLB	Training and Development Lead Body
WBL	Work-Based Learning

THE DEAL PROJECT

Scottish Enterprise

A Scottish Enterprise Funded Project

in Partnership with

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&Lybrand

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Organization/Address: EPD University of Stirling STIRLING FK9 4LA

Telephone: +44 1786 467956

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