A working paper by the Skills Research Initiative.

Title

Key Skills Framework: Enhancing Employability within a Lifelong Learning Paradigm.

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Abstract

Employability\(^1\) has become an area of interest among the general public and policy makers alike, with an increasing number of reports in the general media regarding the need for workers in certain sectors to up-skill due to the possible threat of job ‘displacement’. In addition, education and training policy documents emphasising that citizens should pursue Life Long Learning\(^2\) / Life Wide Learning to address the increased job related uncertainty attributed to the globalisation process and the concomitant competitive threats. Academics such as Barnett (2005) claim that we are living in an era of ‘super complexity’\(^3\) and rapid change where even trade unions are beginning to come to terms with the notion that in the present employment climate ‘change is a given rather then an exception’. Within this proposition of change, of global economics, of mobility of capital and labour, and social flux, the Irish economy has out-preformed many of her fellow European Union member states in terms of both GDP and GNP\(^4\). However the pertinent question now posed is how will Ireland maintain this competitive advantage moving forward? While the answer to this question is multi-dimensional and complex, requiring the expert inputs from various academics, professional bodies, and other interested parties, there is nonetheless a growing acceptance that education and training are fundamental to the development of a sustainable solution. This working paper presents a conceptual framework and signposts a research process presently being utilised by a research team to explore employability and a social construct. As such the reader is present with emergent work and invited to make a contribution to this early stage of the research process.

Conceptual approach

The purpose of this paper is to describe emergent work from one the Skills Research Initiative portfolio of research projects entitled “Key Skills Framework: Enhancing Employability within a Lifelong Learning Paradigm”. The aim of this research project is to develop, pilot, evaluate and then mainstream a Key Skills Learning model for up-skilling the emergent labour force in terms of generic transferable skills\(^5\) thereby enhancing employability. The intention is to:

- Critically review and identify the key generic skills that students, workers, employers and experts consider necessary in this new global employment environment.
- Produce, pilot and mainstream a high value quality assured Keys Skills Learning Module which fulfils the criteria of a Special Purpose Award Type at Level 6\(^6\) of the National Framework of Qualifications as detailed in the National Qualifications Authority of Ireland policy documents.
- The intention is to use a blended learning methodology to deliver a flexible user friendly education and training package which covers the identified key skills

The function of this conceptual paper is dissemination and dialogue, the SRI recognise that research reports and papers are usually presented \textit{ex post}, here we are presenting work as such before the event \textit{ex ante}. By adopting this approaching the SRI is endeavouring to establish a communication dynamic with interested parties external to the research. The research project team are endeavouring to share and exchange knowledge and experience relating to employability with our peers and communities of
practice. Thus the research is open to the external influence of contributors as its takes shape. The three main areas covered in this paper are:

(i) The initial stage of a systematic review of the literature relating to employability,
(ii) A provisional outline of a conceptual framework for research into employability,
(iii) The DIT as a case study site and how employability could enhance the learning and human capital of both undergraduate and apprenticeship students.

The mode of inquiry utilised for this paper is interpretative, the methodology is located in qualitative research discourse, and the method consists of literature review, document analysis and ‘critical self reflection’ as actors in the higher education sector. The ‘multi-disciplinary’ (see Rowland 2006) research team adopt an eclectic position to knowledge domains, utilising research from several disciplines in the broad episteme of social science. Within the limited space of this conference paper we seek to provide an initial literature review which should be considered as a ‘work in progress’, our intent is to identify what Guba and Lincoln (1989) term; ‘claims, concerns and issues’, these will be confined to three large areas of discourse: Policy; the scouring and mapping out of some of the macro (international), meso (European) and micro (Irish) policy initiatives and reports drafted by Governments and policy shapers which promote employability, we refer to this cluster of policy items as the ‘official employability discourse’. The journals; simultaneously using a ‘snowball’ technique we are trawling through the peer reviewed journals to make visible the diverse voice of academics, teachers, trainers and researchers, we categorise this loosely as the ‘non-aligned employability discourse’. Finally we endeavour to signpost some of the views of the more influential lobby group, students’ unions, professional associations, trade unions and specialist interest organisations, which we will refer to as ‘insular employability discourse’. The literature review process utilised is informed by the work of Hart (2005) and Creswell (2005) namely the five keys stages identified as part of a literature review; (1) Identify key terms (2) Locate literature, (3) Critically evaluate and select, (4) Organise literature, (5) Write the review.

Other ideas were obtained from Fisher (2006) paper, ‘Dissertation Literature Reviews and Doctoral Students – Evoking Creativity or Compliant banality.

The (new) organisation of work and employability

In modern western industrialised societies it is now generally accepted that the expectation of ‘lifetime employment’, ‘single employment’ or continuous employment in the one specialised field is the exception rather than the norm. While working environments have greatly improved in terms of pay and conditions the reverse side of the coin is insecurity of employment. With the introduction of part-time, short term, fixed term contracts, job sharing, contracting out work, project work and so forth, employees need to have the ability to cope with change. Some theorists (Sabel 1982, Brehony Deem 2005) claim that work organisation in modern industrial societies has moved from ‘fordism’ which is characterised by scientific management techniques, hierarchical structure, inflexible processes, specialisation and mass production to ‘post fordism’ which places an emphasis on, flexibility, decentralisation, team work, flat
structure, and ICT utilisation. Harvey (2000) claims that graduates were facing new realities in the organisation of work due to three main organisational change strategies, downsizing, delayering and flexible contractual arrangements. Other more political driving explanations highlight the incremental advancement of the neo-liberal agenda which can be located in the ideology promoted by Reaganism and Thatcherism during the 1970-80ths in the USA and the UK (see Beck 1999).

The neo-liberal political agenda has become a dominant ideology pursued by European political parties, bureaucrats and technocrats; as such it is reshaping the education landscape throughout Europe. The overarching principles of neo-liberalism are, free trade, free capital mobility, flexibilisation of labour, privatisation, restructuring of the welfare state, market economics, responsibility/choice moves from the state to the individual (see Hermann 2005). In an educational context neo-liberalism refocuses the pedagogical discourse relating to vocationalism versus liberal education (see Pring 1996). The emergent dominant official policy inherent in this modernisation agenda targeting education, places a distinct emphasis on the economic imperative of education, the return on investment or human capital theory (Becker 1964) and as such it leans towards ‘utilitarianism’ (Halstead 1996). If the post-fordism and neo-liberal thesis is accepted then the notion of employability could be perceived as a useful construct, which could assist the policy formulation process, with a view to preparing and equipping students / workers with skills in advance of the demand posed by the new reorganisation of work. It gives recognition to the new nature of work that workers are experiencing, mainly uncertainty. An employability approach within this context seeks to develop strategies and capabilities which assist workers to ‘gain and maintain’ employment by learning new transferable skills (see Hillage & Pollard 1998). Morley (2001) terms this process as ‘Producing new of workers’. She is critical of the motives behind the employability policy agenda both in a political and philosophical sense, claiming that education is being ‘Japanised’ incorporating the values and approaches of industry, accepting utilitarian education needs of modern capitalism. Further she suggests that the employability agenda is a ‘decontextualised signifier’ negating to cater for issues such as gender, race, social class and disability. Sanders and de Grip (2003) in their study on Low-skilled workers in the Netherlands postulate the emergence and shift of emphasis in the employability agenda; this is summated below snapshot developed from their more detailed work:

<table>
<thead>
<tr>
<th>Year</th>
<th>Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-60s</td>
<td>‘individuals potential to become employed and attitude’.</td>
</tr>
<tr>
<td>1970s</td>
<td>‘occupational knowledge and skills, ability’</td>
</tr>
<tr>
<td>1980s</td>
<td>‘meta-characteristics, attitude, knowledge, skills and career’</td>
</tr>
<tr>
<td>1990s</td>
<td>‘career focus, ability, capacity to deal with change’</td>
</tr>
</tbody>
</table>

This provides an interesting illustration of retrospective reflection, and how the emphasis changed from the broad notion of the individual’s potential to the more narrow focus of career path. Of course there are other dynamic and complex factors at play here shaping these changes such as, geo-politics, socio-economic technological and as Giddens (2003) notes during the above time frame the ‘reduction in time and space’ due to advances in technologies and access to mass transportation.

Before moving on it is necessary to explore some definitions of employability and the main inter-related tenets explicitly inherent in this concept. The UK, France, Germany Australia and the USA have been promoting the concept of employability and
developing skills categories since the 1980s. The USA, Australia and the UK use the following descriptive words, ‘core’, ‘generic’, ‘key’ skills which are considered essential for employability. The table 1 gives an example of other countries’ categorisation and terminology used in relation to employability skills. This table provides a researcher with an interesting linguistic perspective for a discourse analysis study relating to the expectations, priority and value that different countries place on employability skills. However this is outside the remit of this paper.

Table 1, Different countries Terminology relating to employability skills. Source; Australian National Training Authority 2003.

The official discourse in the UK\(^{14}\) which was underpinned by the ‘New Deal’ a socio-economic political policy advanced by the New Labour Government in the 1990s, viewed skills development as crucial to enabling employment participation, gaining an economic advantage and contribution to the larger vision of a knowledge economy. The Department of Education and Skills (also see the Dearing Report 1997) have identified six key generic skills relevant to employability which they want incorporated into the curriculum. Further employability is now used as one of a selection of performance indicators\(^{15}\) which claim to measure out-put effectiveness and are utilised in the compilation of school, college, university league tables. Currently the six key generic skills in use are:

- Communication
- Application of numbers
- Information technology
- Working with others
- Improving own learning and performance
- Problem solving

Yorke (2006) is somewhat dismissive of the transferable skills literature and its application to theories of learning suggesting that it is ‘little more then a wish list constructed by interested parties’. He notes the complexity of employability as a concept which seeks to explore and capture ‘personal qualities, beliefs, understanding, skilful practices and the ability to reflect productively on experience’. He suggest two models that have pedagogical relevance; Bennett et el (2000) and their differentiation of skills applicable to different domains and the specificity of skills to either discipline or
cross discipline ‘generic’ as such they identify five categorise for curriculum design consideration;

(1), disciplinary content,
(2), disciplinary skill,
(3), workplace experience,
(4), workplace awareness,
(5), generic skills.

Yorke and Knight (2004) in the ‘Skills plus project’ propose an interrelated model called USEM; Understanding, Skills, Efficacy, and Metacognition. They claim the self efficacy of the learner is crucial in the dynamic interaction of ‘skilful practice’ and ‘subject understanding’ and metacognition the process of reflecting ‘on, in and for action’. This type of pedagogical approach to employability brings the needs of the student (worker) to the centre stage and relegates the economic imperative as such to the backstage. This is a more humanistic position, the student / worker are perceived as humans first with unique individual characteristics and secondly as contributors to the techno-rationality of the new organisation of work. It is also worth noting in light of a pedagogical approach to employability which recognises the complex nature of this conceptual construct several questions can be raised relating to current policy trends; What is the main driving force behind the employability agenda? Is employability a new policy instrument or a verifiable construct based on rigorous evidence? Is employability quantifiable? Can employability be measured as an output by performance indicators? Who are the main beneficiaries of employability, the state, industry, the individual? Who should fund the research needed to inform programme development? Who should fund the learning & teaching provision?

Sheldon and Thornthwaite (2005) research into vocational education and training (VET) and employability skills in Australia provides some visibility to the previous mentioned questions. They suggest that emergent skills gaps are a factor in the advancement of the employability agenda, the main driver seems to be political and economic agendas. They note the current skills gap (shortages) has occurred as a results of mainstream VET under funding and a new neo-liberal political policy agenda, ‘privatisation, corporatisation and the shrinking of public sector instrumentalities’. Subsequently responsibility for VET provision has moved from the state ‘traditional provider-led system’ to a free market or ‘industry-led system’. The lack of willingness by industry to make a serious sustainable financial contribution to VET and their myopic strategic vision of training provision, which basically forfeits long term VET planning and uses short term migrant labour and negates industries responsibility to VET provision claiming that the individual worker is the benefactor of VET therefore it is their responsibility to up-skill an individualisation approach. Powerful industry interest groups and large private training providers are setting the employability agenda and the ‘wish list’ of basic, personal and inter-personal skills that are necessary for the modern worker to make a positive and compliant contribution to the productivity and efficiency of the company, this leads back to Yorke’s thesis. We also note the substantial psychometric literature and indeed a growing industry which offers sophisticated tests, claiming to measure individual differences, such as IQ, personality, attitudes, emotion and so forth. The tests are used by large corporations, government agencies and other sectors for selection purposes. There is some conceptual cross over between the employability discourse and the items identified in psychometric and general
psychological tests such as the Stanford-Binet IQ battery, Sternberg’s concept of Multiple Intelligences, Goleman concept of Emotional Intelligence (EQ), Cattell's Personality Factor test the 16PF, Eysenck Personality Questionnaire (EPQ), Costa and McCrae NEO-PI Five Factors and we could broaden this out to include Belbin’s test of characteristics of effective teams and other social psychology experiments on group dynamics. From this current stage of our review of research from the ‘non-aligned discourse’ the employability agenda crosses traditional tertiary education and training boundaries, VET, Further Education (FE) and HE. However the emphasis of the skills inherent to employability, change depending on the sector, the requirements and the needs (Yorke's ‘wish list’). The conceptual potency of employability as a definitive construct seems to be based more on economic-political motives then empirical evidence and pedagogy.

Micro perspective Irish national Policy context

While the Irish economy is currently experiencing skills shortages and skills gaps in certain areas, policy makers, employers and trade unions have identified the up-skilling of resident workers as crucial. As Ms Anne Heraty, Chairperson, Expert Group on Future Skills Needs (EGFSN) claims,

“The up-skilling and training of the resident population must be seen as the primary response to skill shortages. Developing the work force at all levels is crucial to Ireland’s sustained economic development,” (2005).

While specialised up-skilling programmes can be provided in the workplace, for example training in the utilisation of new equipment. This source of up-skilling is specific and non-transferable; it benefits the employer and worker in the immediate term. These specialised specific skills are extremely necessary, they should be underpinned by the development of broader long-term strategic planning by adopting a generic skills up-skilling policy. This benefits both the employer and the worker, the employer gains a worker with increased knowledge capital and the worker improves their human capital, transferable skills and therefore employability potential. This point is giving a meso perspective in the Irish country report, Progress Report 2005 “Modernisation of Education and Training 2010,

‘In order to maintain and enhance Ireland's international competitiveness, ensuring that the education and training systems promote the development of human capital, especially through the identification of future key skills needs and the putting in place of appropriate related learning opportunities’ (p38).

The National Development Plan (NDP) 2000-2006 launched in 1999, represented the largest investment plan in the history of the Irish State at that time. The main objective is the promotion of sustainable economic growth and employment. According to a statement by Minister Micheál Martin, about the NDP:

... education had been established as a key priority by the Government and ... the National Development Plan represents the unprecedented underpinning and expansion of programmes across the next seven years. “I believe that this ambitious Plan provides an excellent foundation for delivering a high-quality and inclusive education system over the coming years.” The number of
education issues covered by the Plan has greatly expanded from its predecessor and funding is very clearly focussed on national priorities. These are:

- To tackle disadvantage through a range of interventions at different levels
- To promote and support a culture of lifelong learning with a clear emphasis on second-chance education
- To modernise facilities and promote quality at all levels.


The Plan set out a €57 billion investment programme targeting key areas which impact on national competitiveness, such as, infrastructure development, education and training, the productive sector, promotion of social inclusion and regional development. There was a substantial commitment made towards investment in education and training with particular emphases on lifelong learning and ‘second chance education’. The premise being that to maintain Ireland’s economic performance in a rapidly changing and increasingly competitive globalised world, resources have to be targeted at people to enhance the ‘stock knowledge’ and ‘human capital’. The Enterprise Strategy Group suggests that:

*From an enterprise perspective, the ability of the education system to respond flexibly to economic and social change is critical to the supply of appropriate skills for the effective functioning of the economy. Ireland's economic development will depend to a large degree on knowledge and innovation, both of which are essential in making the transition to higher value activities that support economic growth and wealth creation. People are the enablers of such activities and the education and training system must adapt to produce the skills to drive successful enterprise.*

(2004, p97)

The above quotation demonstrates the economic perspective for the role of VET, FE and HE in the knowledge based economy. The approach that this report adopts is an example of the general ‘neo-liberal’ (see Lynch 2004, Young 2005) economic model of education been proposed by numerous interested parties or stakeholders. The general assumption is based in the ‘Human Capital’ (Becker 1964) economic paradigm; the emphasis is on gaining an economic return and competitive advantage on investment made in the spheres of education and training. The Operational Programme for Employment and Human Resources 2000-2006 also focuses on the human capital model; three areas for skills development in third level are targeted for investment, Middle-level Technician/Higher Technical and Business Skills, Undergraduate Skills and Institute Trainee Programme. There is an emphasis placed on developing links between business and education and training providers to address skills shortages. This has implications with regards to mature applicants (workers, unemployed) gaining access to education and training programmes that are suitable to meet their requirements. The new National Development Plan 2007-2013 (launched just be fore the submission deadline of this paper) will invest 183.7 billion euro into five priority areas; Economic infrastructure 54.7 billion, Enterprise, Science and Innovation 22 billion, Human Capital 25.8 billion, Social infrastructure 33.6 billion and Social Inclusion 49.6. Skills development, enhancement, up-skilling is mentioned throughout
this document and particular emphasis is placed on investing in primary, secondary education, VET, FE and HE in Chapter 9, Human Capital Priority (pp189-206) see appendix 2 for extracts from both NDP 2000-2007 relating to Employability and NDP 2007-2013 Human Capital.

Meso perspective, The European policy context

In the European context several policy documents have stressed the need for up-skilling and employability with particular emphases on the EU becoming the most competitive economy in the world by 2010. Strategies are aimed at mobility, access to education and training, improving both basic and key skills levels, increasing the number of PhD and post-doc researchers, recognition and translation of awards through the provision of a Meta-framework the European Qualifications Framework (EQF), other important initiatives are; Lisbon Agenda 2010, Bologna Process, Copenhagen Declaration, European Research Area, European Higher Education Area, and subsequent follow up progress reports. Two new major initiatives for 2007-2013 are the Life Long Learning programme and the Platform 7 research funding programme. The below extract gives an example of the policy trend being pursued by the EU Commission;

"The Council has repeatedly emphasised the dual role – social and economic – of education and training systems. Education and training are a determining factor in each country’s potential for excellence, innovation and competitiveness. At the same time, they are an integral part of the social dimension of Europe, because they transmit values of solidarity, equal opportunities and social participation, while also producing positive effects on health, crime, the environment, democratisation and general quality of life. All citizens need to acquire and continually update their knowledge, skills and competences through lifelong learning, and the specific needs of those at risk of social exclusion need to be taken into account. This will help to raise labour force participation and economic growth, while ensuring social cohesion. Investing in education and training has a price, but high private, economic and social returns in the medium and long-term outweigh the costs. Reforms should therefore continue to seek synergies between economic and social policy objectives, which are in fact mutually reinforcing. (EU Commission 2005, p3)"

The SRI project will use the above mentioned EU documents as points of references and leads to other policy areas and undertake a full document analysis of the collected EU policy documents. This SRI project will endeavour to produce key skills learning modules that are in alignment with the policy trends in both a European and national context. A primary aim will be to give citizens access to a learning tools that will enable their employability potential. Secondly provide a positive learning experience that will encourage citizens to engage in further education and training, (a life long learning cycle). This will offer some protection in the now rapidly changing work environment.

Macro perspective on employability

From a macro perspective, utilising global context, employability as a construct is firmly on the agenda, specifically relating to international organisations who seek to influence policy formation and implementation within different nation states. Here we identify some of the major international agencies who influence the global
employability agenda. The World Trade Organisation (WTO) is a prime example it first sought to negotiate binding legal international agreements relating to trade (import & exports) through General Agreements on Trade and Tariffs (GATT) but has now ventured into gaining agreement on internal services General Agreement on Trade Tariffs and Services (GATS). WTO claims that nation state protectionist policies pursued during and prior to the 1980ths had lead to inflation, overexpansion, fiscal deficit and a down turn in economic growth. A ‘New Liberalism’ emerged taking corrective action in the terms of, enacting a market orientated approach such as, reducing restrictive trade practices and policies, deregulation, encouraging competition, mainly in the area of trade. More relevant to our present topic is the fact that the GATT which provisional focused on trade related issues began to colonise the services sector space this emerged in the evolving General Agreement on Trade and Services (GATS) in 1994 and is still emerging. The Organisation for Economic Cooperation and Development (OECD) has through both research activities and information dissemination promoted the notion of market liberalisation some what in line with the WTO. The OCED international and national reports on education and training have placed great emphasis on the Human Capital approach and also to an extent have supported individualisation particularly in relation to user pays (fees). Human capital investment and employability are identified as positive strategies that can enhance productivity and economic development (see OECD 1999, 2003). The World Bank on the other hand has enable human capital capacity building programme in developing country by the provision of strategic loans and finances (see Samoff and Carol 2003). The International Labour Organisation (ILO) has carried out several comparative and country reports relating to employability and labour. The ILO has a specific department called Skills and Employability Department. The ILO research and information dissemination work relating to employment is situated in a global context, one of the major current project is called ‘Global Employment Agenda; Employment strategies in support of decent work’. The United Nations Education and Science Committee Organisation (UNESCO) has carried out valuable research and active advocacy relating to the right to access education and the positive developmental benefits inherent in education and training programmes both for the individual and the nation state. Other powerful interest groups related to industry, trade unions, and private providers of education and training that have effectively lobbied for positional change of policy will be explored. The SRI project team will explore and analysis the major reports produced by these organisations relating to employability.

Initial conceptual framework for the research project.

The mode of inquiry utilised for this research will be interpretative, the methodology will be firmly located in qualitative research discourse, and informed by Guba and Lincoln (1989) 4th Generation Evaluation. Our inquiry applies evaluation techniques which are more formative then summative, three layers of analysis are used; Claims (positive aspect, agreement, item can be progressed, negotiations finalised), Issues (reasonable disagreement, item can progress, negotiations continue) Concerns (negative aspect, strong disagreement, item stopped, contested negotiations). The triangulation process utilised will be confined to data collected from the three discourses, macro, meso, micro (official, non-aligned, insular) rather then methodological triangulation. The multi-disciplinary nature of the research team adds to the rigour of the triangulation process in terms of ontology and epistemological positioning of the different members. The philosophy underpinning the SRI is based on collegiality and acceptance of
difference; it is the difference that creates a healthy tension in the research process. We also utilise Vygotsky’s Zones of Proximate Development (ZPD) as a meta-framework to explore the dynamic interaction between ‘agency and structure’ and try to identify both social and cultural capital\textsuperscript{22} links see diagram 1 next page. We will utilise mixed method research processes, such as document analysis, online surveys, interviews and observational studies. From the collected data rather then presenting finding in the orthodox sense we will construct ‘Learning’ based on our interpretation and understanding of the material gather. This Learning will be used to inform the next round of research; there will be four main research rounds;

- The first round of research will consist of a systematic literature review, mapping out the concerns, issues and claims expressed by different sectors and actors from macro, meso and micro level (see appendix 1 table).
- The second round of research will involve field research in Ireland, mixed methods approach utilising both qualitative and quantitative research process, the sampling population will be government agencies, tertiary education sector, training providers, employer’s organisations, trade unions, students and other interested parties. (see appendix 1, table 3)
- The third round involves pedagogical considerations and learning and teaching practice and the development of the Generic Key Skills programme at Level 6 of the NFQ in line with learning outcomes and grid descriptors. (see appendix 1 table 4)
- The fourth round will consist of an evaluation of the programme by learners, lecturers and other interested parties. The programmes will be adjusted in accordance to recommendations from this evaluation. If the evaluation is positive the programme will be mainstreamed and the research team will develop a programme at level 7 of the NFQ (see appendix 1 table 5).

| Diagram 1, Depiction of structure, agency dynamic\textsuperscript{1} with employability as a common strand and the connectivity created by globalisation. |

The aim of this project is to produce a programme to up-skill the emergent resident labour force in Ireland in key generic skills, thereby making a direct contribution to
worker (student) employability and promoting a lifelong learning approach to continuous skills updating. The project objective is to construct and provide a framework of Key Skills Learning modules that offer progression routes from level 6 to 10 of the NFQ. These modules will incorporate state of the art pedagogical strategies with an emphasis on blended learning. Delivery will be flexible utilising both online and distance learning technologies and practice, tutorial support will be provided face to face in either the workplace or an appropriate learning setting. The main premise is to enhance workers transferable skills capacity thereby enabling increased employability potential.

The project will be co-ordinated by a ‘multi-disciplinary’ research team, utilising research from several disciplines within the broader episteme of social science. The methodology utilised will be underpinned by a participatory consultation process model. This is somewhat similar to a partnership approach the main difference being it incorporates more rigour and focus into the research design element of the process. This reduces the risk of distraction or even ambivalence creeping into the emerging research mainly due to lack of clarity of the research objective or political power play. The initial research into identifying the key skills will be exploratory and utilise a ‘mixed method’ approach (qualitative data from workshops and focus groups will be used to formulate an online survey the quantitative data form the online will then be tested in a further serious of workshops and expert peer groups). A ‘utilisation-focused evaluation’ process will be applied from the start of the project this enables interventions and modifications to be made as evidence emerges. An appropriate code of social science ethical guidelines will be utilised by the project team from the on set of the project’s work.

Dublin Institute of Technology context

The Dublin Institute of Technology (DIT) is a multi level higher education provider and awarding body. The DIT campus comprises of six faculties located in a network of thirty six locations in the heart of Dublin the capital city of Ireland. Findings presented in the Institutes Self-evaluation Report for the preliminary stage of the European University Association (EUA) Quality Review of DIT noted that the demographics of the Institute in 2004 consisted of; a student body of 19,969, academic staff 1001 and management, support, administration and technical staff 830. These figures suggest that the DIT is one of the largest higher education providers in the state. The historical origins of the DIT can be traced back to 1887 with the emergence of vocational education. The DIT was statutorily established as an autonomous institution by the Irish Government under the Dublin Institute of Technology (DIT) Act, 1992. The Act made provisions for the merger of six City of Dublin Vocational Education Committee (CDVEC) Colleges to become an integrated Institute of higher education. This Act sets out the Institute’s functions, the principal one being to provide vocational and technical education and training for the economic, technological, scientific, commercial, industrial, social and cultural development of the State. In this context the Institute is to provide programmes of study at a range of award levels. Provision is also made for engaging in research, consultancy and development work, either on its own or with other institutions, and to provide services in relation to such work and to exploit the results of this work. The DIT Mission Statement states:
The Institute is a comprehensive higher education institution, fulfilling a national and international role in providing full-time and part-time programmes across the whole spectrum of higher education, supported by research and scholarship in areas reflective of the Institute’s mission. It aims to achieve this in an innovative, responsive, caring and flexible learning environment with state-of-the-art facilities and the most advanced technology available. It is committed to providing access to higher education for students of different ages and backgrounds, and to achieving quality and excellence in all aspects of its work. This commitment extends to the provision of teaching, research, development and consultancy services for industry and society, with due regard to the technological, commercial, social and cultural needs of the community it serves. DIT Mission Statement

This project is clearly aligned to the DIT Mission statement and seeks to realise the inherent direction as stated above with regards to, access, part time students, flexible learning modes, quality, research and consultancy and meeting the Institutes societal needs. Further this project endeavours to identify similarities in policy trends from three difference sources macro international, mesco European and micro national from this triangulation process a single strand of enquiry ‘employability’ is extrapolated and refined. We will also explore some of the other powerful dynamics at play, see diagram 2.

Diagram 2, Complex dynamics effecting policy formation on employability.

Learning and teaching informed by research is a common strand that flows through these policy levels, an undercurrent that is emerging is the linkage of education and training to the needs of the labour market. Within the locus of this emerging strand is
the notion of labour force capacity and up-skilling to meet the needs and challenges posed by the increasingly competitive employment environment. DIT recognises that the shift from student life to working life presents numerous challenges for all concerned. To advise and assist students during this life-cycle transition DIT provides a professional Careers Service division. Careers Services are often seen as functionaries of the state, furthering the needs of the economy by advising and guiding students into jobs society needs, in order to develop and maintain its economic competitiveness. They are seen as the enablers of human capital theory, working with and within Higher Education Institutions to ensure an adequate supply and flow of human capital for deployment to meet the economies needs. This manifests itself operationally as either helping students get their first job or in fact more basically getting jobs for students. DIT careers service can and often does do this but more fundamentally it seeks to place the ‘human’ at the heart of the human capital debate. Reductionist thinking of viewing humans as sets of skills and competencies meeting economic needs is in itself rather dehumanising. Education should focus on the personal and social dimensions of human existence as well as the academic and vocational dimensions.

**Employability and Career Development Learning**

The concepts of employability and career development learning offer a unique opportunity to bridge the ‘gap’ between these dimensions. Employability has both narrow and broad focus definitions differentiated mainly along temporal lines. The first focuses on the quality of immediate employment, generally measured by the First Destinations Research carried out on behalf of the Higher Education Authority, by all third level colleges six to eight months after graduation. This rather crude measure does not take into account the timeframe often necessary for graduates to make the transition into graduate level employment. Arriving at the definition of what constitutes a graduate job is in itself hugely problematic. Further it does not measure whether jobs entered make use of graduate competencies26. The fact that some students take time out to travel or just take short term jobs further calls the value of this research into question. A second focus of employability is on ‘immediate employability’ – whether the student has the competencies and attributes to do a graduate job. The measure of this being ‘how well the student (as a new worker)27 can hit the ground running’. The third and most expansive focuses on ‘sustainable employability’. Knight and Yorke (2004, p. 46) state, employability “does not rest when the first graduate job is achieved but needs to be continually renewed to be sustainable”. This importantly, not only broadens the focus to include a wider range of attributes required to be successful within employment but also includes the attributes required to manage one’s career development in ways that will sustain one’s employability. This shift crucially moves the debate away from the skills agenda (generic skills; transferable skills; core skills) to something more fundamental: how one manages their career throughout life. The USEM employability model offered by Knight and Yorke (2004) draws on the work of work of Marzano (1998) analysis of teaching intervention impacts. Marzano posited that four aspects of human thought operate in all situations:

(a) knowledge, (b) the cognitive system, (c) the metacognitive system
(d) the self system and suggested that these would be useful organisers for research on instruction.
This model for sustainable employability correlates particularly well with the central aims of careers education. Stanbury defines careers education as;

“Those formal processes that empower individuals to identify develop and articulate the skills, qualifications, experiences, attributes and knowledge that will enable them to make an effective transition into their chosen futures and manage their careers as lifelong learners, with a realistic and positive attitude”. (2005, p.2.).

Watts et al (2002, p351) states that careers education can act as ‘the interface between the individual and society, between self and opportunity, between aspiration and reality’. One of the central aims of careers education is to enable individuals to make and implement career decisions. Law and Watts (1977) developed a conceptual model which has a framework of four components considered to be fundamental to careers education:

- Self awareness – the ability to identify and articulate motivations, skills and personality as they affect career plans
- Opportunity awareness – knowledge of opportunities available and how to reach them
- Decision making – being able to weigh up personal factors to make a well informed and realistic career plan
- Transition learning – understanding how to seek and secure opportunities

This process needs to be dynamic as an individual will need to relate their understanding of themselves to the opportunities available before arriving at and attempting to implement career decisions.

Law (2006) in his ‘post dots’ model, has gone on to focus on the process by which people make career related decisions, using narrative as a means to draw attention to the
influencing factors. Watts (2006) suggests that the skill of managing one’s career can be viewed in two ways;

- A subset of employability skills
- As a related set of meta skills which enable individuals to develop and use the full ranges of their other skills

Watts (ibid) parallels this with Butcher and Harvey’s (1998) definition of a meta ability as a ‘underlying, learned ability which plays an important role in allowing a wider range of … knowledge and skills to be used effectively’. He also notes the strong resonances with Knight and Yorke’s definition (2004, p.6) of metacognition, subsuming: learning how to learn; of reflection in, of and for practice; and of a capacity for self regulation. In fact it is very evident how these concepts align themselves with good academic values. Inherent in the processes of managing one’s career is the element of volition, personal control, knowledge of oneself and of the factors which influence one’s decision making both personal (e.g. self efficacy, confidence), and societal (family, community, (sub) culture, labour market trends). Jarvis (2006) outlines the new Career Management Paradigm which is less about making the right occupational choice but about equipping people with competencies to make the many choices they are faced with continuously in all aspects of their lives. In his Blueprint for Life28 he identifies core career management competencies and performance indicators at four developmental levels across one’s lifespan. The competencies are arranged around three domains, a) personal management, b) learning and work exploration and c) life/work building. Jarvis links the failure to engage people in career management to the potential economic damage. Human capital theory will be successful if humans at the heart of it are not fulfilled. Jarvis argues that even with good information and job search skills,

“...if a person expects to fail again (competency 1), has poor communication and teamwork skills (competency 2), complains about change rather than embracing it (competency 3), is not open to learning and innovating (competency 4), and cannot balance life and work effectively (competency 9), they will probably not keep a job long if they are fortunate enough to secure one. Moreover, they will likely not find satisfaction and fulfillment in the job, and their employer is not likely to enjoy high productivity from this employee.” (2006 p7)

The DIT Careers Service has developed a series of career development programmes for students across the institute, ranging from bespoke one day workshops to assessed integrated programmes. The cementing of the partnership approach between careers practitioners and academics is required to ensure all students have access to career development and employability skills. The integration of self awareness, reflection, personal decision making, action planning should be included in vocationally oriented curricula to ensure deep learning as well as enabling students to take control of their development and progression through learning and work.

**DIT and Apprenticeship**

The DIT delivers both Phase 4 & 6 of the national Standard Based Apprenticeship System (SBAS), catering annually for over 3500 apprentice students. DIT makes provision for 20 out of the 25 nationally designated trade areas. Academic staff in DIT also organise, co-ordinate, develop examination papers and assessment criteria for the
National Skills Competition and directly contribute to the Worldskills Competition. Under the 1999 Qualifications (Education and Training) Act, DIT and the IoTs are described as a secondary provider of the SBAS, FAS the training authority has the primary contract with the apprentice. The Institutes of Technology Apprenticeship Committee (ITAC) is the body that develops policy and gives the DIT and the IoT’s a collective voice in the education and training of apprentices. Within the present SBAS apprentice students undertake seven phases of practice and learning, one phase of training in FAS, four phases of work based learning and advanced education and skills development, assessment and student experience occurs during both Phase 4 and 6 in the DIT and the other IoT’s. When an apprentice successfully completes examinations at Phase 4 & 6 and have served their time they are awarded a National Craft Certificate by the Further Education Training and Awards Council (FETAC) this is a Major Award placed at level 6 of the NFQ. The SBAS is a dual system of learning and work, specifically it bridges the gap between formal education and work based learning. It shares a lot of the characteristic of vocational education as detailed by UNESCO-UNEVOC (2006) mainly; an educational process involving, general education, technology, science, acquisition of practical skills, knowledge and understanding relating to occupation, economic and social life. As SBAS provides both practical and related theoretical education it affords an encouraging alternative to pure academic studies. The SBAS has been seen as a key method of dealing with the current shortages in the construction industry. A review of the Irish labour market undertaken by FAS in 2002 suggests that there will be a shortage of 11,993 skilled construction workers up to 2006 (FAS, 2002a). This figure is not alleviated by the rise in apprenticeship enrolment numbers from 5,000 in the early 1990’s (FAS, 1998a) to 25,906 in 2002 (FAS, 2002b).

Post National Craft Certificate it is apparent, that most apprentices do not progress to higher levels of formal educational attainment. This is recognised in the National Development Plan 2007-2013 which proposes to invest €2.8 billion in up-skilling people in employment including new skills for those affected by industrial restructuring, job displacement as well as an expansion and enlargement of the apprenticeship system (Irish Times, January 27 2007). In its final report on “The Demand and Supply of Engineers and Engineering Technicians” for the Expert Group on Future Skills Needs, McIver Consulting for Forfas stress that,

‘it is important that there should be a national framework for the progression from craft level qualifications to higher level qualifications’;[these qualifications to provide the opportunities to enhance employability and promote new career prospects’, (2003, p113).

The Expert Group on Future Skills Needs (2003, p32) point out that the importance of apprenticeship has been recognised by the ILO in its World Employment Report and by the OECD and indicate that the expansion of the apprenticeship system should be reviewed:

In addition the possibility of attracting a greater number of mature students through the introduction of more flexible apprenticeship schemes should be examined. A key issue to consider is the availability of opportunities for apprentices to progress to further and higher education. (1998-1999)
The OECD (1998) had earlier suggested that the apprenticeship style of education and training raised questions regarding the balance between initial and continued lifelong learning. Countries like Germany and Austria with more extensive apprenticeship provision than Ireland are characterised by strong general and vocational education streams. However, it is suggested that the attractiveness of the vocational route is diminishing, in part, due to the tough economic conditions currently prevailing in Central Europe with high apprenticeship costs. More strikingly in contrast to full time education the apprenticeship route does not generally leave open the possibility of entering tertiary education at a later date. In an Irish perspective this is supported by Clancy and Wall (2000) who indicate that entrants to higher education as indicated from the Fathers Socio-Economic grouping, Skilled Manual Worker, was 34% in 1998 up from 28% in 1992; this group includes occupations such as mechanics and electricians. In comparison nearly 93% and 85% respectively, of those from the Higher Professional Socio-Economic entered third level education. In its final report for Aimhigher Greater Manchester Partnership EKOS Consulting identified a participation rate of 26% for a similar Socio-Economic Group and indicated that that 19% of those taking the Advanced Modern Apprenticeship may consider undertaking a degree course and

‘if they went on to higher education, then this would represent a significantly higher percentage than the national average’ (2004, p9).

A more striking context of the lack of coherent apprentice pathways for progression is provided from the UK by the Cornwall region Aimhigher Partnership,

Currently from a cohort of FMA[Foundation Modern Apprenticeship] and AMA [Advanced Modern Apprenticeship] apprentices of almost 21,000 only 60 progressed to higher study; a progress rate of 0.4%....It is estimated that there are a further 20,000 former apprentices with an L3 qualification who have not progressed to university level study ( 2003 p 2).

The National Qualifications Authority of Ireland (2003) policy document details Access, Transfer and Progression procedures, stating:

It is considered that the concept of ‘access’ should apply to all learners, but particularly to the participation of under-represented learner cohorts such as .... learners in the workplace and adult learners. A more appropriate definition of access for these groups needs to include programme adaptation, or the provision of in-process supports, or even the provision of new variants or formats (2003, p6)

The Framework of Qualifications (2003, p 24) develops the basis of these new variants or formats by outlining that they should, facilitate continual and lifelong learning through enhancing the range of learning opportunities and by facilitating change in curricula and delivery methods, enable the recognition of learning in many non-formal and informal contexts and in new formats. Within the DIT the Academic Quality Assurance Committees sub-group report into Access, Transfer and Progression (2004,p 2) outlines in the executive summary, that access for workplace and adult learners may require programme adaptation, in-house supports and new programme designs. This need to address format changes in apprenticeship and post-apprenticeship learning and employability is a feature of the Key Skills Framework: Enhancing Employment within
a Lifelong Learning Paradigm. The Academic Quality Assurance Report, DIT (2004, p 7) congratulates itself on the ladders of access that allow non-traditional students to enter degree programmes. Many of the pathways suggested as routes for progression lie in a tightly bounded third level system that is both didactic and prescriptive, Johnson (2003) describing it as the ‘traditional teaching of a pre-determined academic curriculum’. The draft appendix to its report, the Proposed Model for the Educational Progression for Craftsperson, found post-apprenticeship learners in employment may not be able to avail of full or part time learning provision due to geographic mobility, self-employment or overtime constraints. For apprenticeship learners the pathways to enhanced employment/learning options, on a full or part time basis, bear little resemblance to their previous academic experience within the Institute. As Wagner and Childs have previously found

‘often universities pride themselves on their access programmes allowing non-traditional students to enter degree programmes, however in very few cases does this translate into the restructure of the course to cater for non-traditional students’. (2003, p 4)

Johnson agrees suggesting that employers and prospective students often view the curriculum in higher education as:

‘too prescriptive, dated, ungrounded, delivered by inaccessible modes and at inaccessible times, and assessed against irrelevant criteria through inappropriate methods’. (2000, p 1).

The use of strategies such as Work Based Learning can be used to overcoming the paradigm shift from vocational to higher education and to improve avenues of access and progression. Gray (2001) outlines Work Based Learning as learning in higher education derived from work and includes learning at, for and through work, that is formally linked to the higher education curriculum ensuring validity, reliability and authenticity. A learner may undertake,

‘a taught education programme, the focus of which is the direct application of learning to real work issues and problems, using projects as the primary assessment tool’ (2001,p 4).

Childs (1997) focuses on the recognition of work as the curriculum which allows for active engagement in workplace enquiry and the production of knowledge that is both ‘grounded, shared and developmental’. Reeve and Gallacher (2000, p8) argue that WBL curriculum are bounded and regulated in differing ways to traditional curriculum by the nature of the negotiation that establishes the working boundaries. The negotiation involves a tripartite agreement between the learner, the employer and the provider, referred to as the ‘educational collective’ by Makarenko. Seufert affirms that WBL expressly merges practice, knowledge and theory with experience and that it recognises:

‘that the workplace offers as many opportunities for learning as the classroom......work based learning differs from conventional learning in that it involves deep and conscious reflection on actual experiences at the work place. Fundamental to the process is the concept of metacognition (2002)’.
Learning has been divided by Seufert into single and double loop learning. Single loop learning applies new knowledge to increase the effectiveness of existing operations. Double loop learning leads to new practices and innovation. The need to move from the single loop competence based apprenticeship to a meta-competence learning to learn mode needs to be supported by a Key Skills Framework that will provide the supports necessary for the apprentice learner to achieve lifelong learning and employability. In order to create a foundation that will assist apprentice students to progress and create a stimulus for Lifelong Learning the SRI is carrying out research into developing accessible and flexible programmes for apprentice students while they are in DIT. These programmes would be accredited by the DIT in either of the following categories, Special-purpose Awards or Supplemental Awards. These programmes could be offered under the remit of Continuous Professional Development (CPD), each programme would be accredited and the apprentice student could build up ECTS. Also within the modularisation philosophy broader cross faculty programmes could be offered in the fields of applied arts, science and technology. These programmes would consist of both taught and self directed learning; taught components would consist of six to seven two hour sessions, self directed learning work occurred during project work. Assessment could be based on portfolio development. These programmes would be considered as introductory or foundation level therefore the workload would be light. The primary emphasis would be to deposit the seed for Lifelong Learning and opportunities for progression pathways. The main drive of these programmes would be developmental and capacity building, in essence preparing the apprentice student to engage in further education within the Lifelong Learning paradigm.

Conclusion

In this brief conceptual paper which is a work in progress we outlined our research subject area, framework, methodology, processes developed by the multi-disciplinary research team. We show employability is a complex construct which has different inherent meaning to diverse interested parties, our intent is to refocus attention and the potential of employability back onto the students / worker. Within the DIT context we are endeavouring to construct learning from our analysis of macro, meso and micro discourses and turn this learning into a real world programme. This programme will be underpinned by pedagogy which is informed by research. Our intention is to may provision accessible and enable the up-skilling of worker and students in key skills area relating to the conceptual construct of employability. The project team is open to receiving critical commentary on this project and development collaboration with other researcher doing similar research projects. The research team claim that, this project represents an opportunity to holistically address the development of employability and career management skills within vocational programmes in DIT.

Endnotes

1Employability is a contested term it has been related to; individual’s capacity to obtain and maintain fulfilling work, capability to move self-sufficiently within the labour market, to realise potential through sustainable employment and knowledge, skills and attitude.
5 Skills that can be utilised in various different employment sectors, they are generic, sometimes categorised into soft and hard skills sets.
The mainstreaming of this project will include the development of other Key Skills programmes, as Special Purpose Awards located on the NFQ levels 7, 8, 9, 10.

Critical self-reflection as defined by Barnett (1997, pp. 90-101) concept related to critical theory and tents such as emancipation, transformation and liberation.

The specific established academic knowledge domains I explore are sociology, philosophy, psychology and areas of non-specific or fuzzy boundaries such as industrial relations, evaluation, and management.

Guba and Lincoln (1998) Fourth Generation Evaluation, Claims relate to positive aspects, concern relate to negative aspects and issues to mid ground aspects.

Policy shapers are organisations that have reputation currency and the ability to utilise their expert knowledge in terms of research report to lobby governments and affect the policy formulation process. See Forrier A, Sels L (2003) Temporary employment and employability: training opportunities and efforts of temporary and permanent employees in Belgium

The use of student/worker is not intended to depict a linear process of production, student learners for the labour process. We are deliberately none prescriptive, students/workers can be employees, employers, entrepreneurs, researchers, artist an so forth, in essence the student/worker has the autonomy of choice to decide how and where they apply their employability.

For summary of French, Germany and other European Countries approaches see Winterton ET el, Typology of knowledge, skills and competences: clarification of the concept prototype. Report for Centre of European Research on Employment and Human Resources, 2006.1

Key Skills Policy & Practice, Your Questions Answered, UK Department of Education and Skills 2005


The usage of ‘techno-rationality’ here is link to Habermas concept of ‘technical rationality’ as such a new ideology of work. Also we allude to here the possible ‘reification’ of the student as a product for the new organisation of work.

See OECD (2006) Market failures and the under provision of training, for details relating to under provision and funding and human capital obsolesces.

The employability ‘wish list’ includes items such as; loyalty, good sense of humour, compliant, obedience, respect for authority, flexibility, common sense, trusting and so forth.

See Forfas Expert Group on Future Skills Needs report 2005

New National Development Plan “007-2013 launched on the 22/1/07, 183.7 billion euro investment, five priority areas are Economic infrastructure, Enterprise science and innovation, Human capital, Social inclusion.


Social capital and cultural capital used here relate to the work of Bourdieu.


Dublin Institute of Technology Strategic Plan 2001-2015 p7

This can lead to what Morley describes as ‘underemployment.

Our emphasis italics new worker, here we suggest the transition process students first engagement with work post student life, we are not including part time work while studying or workers who become students as these are different transition processes.

Access (www.blueprint4life.ca)

List of acronyms;

DoES Department of Education and Science
DIT Dublin Institute of Technology
EGFSN Expert Group on Future Skills Needs
EUA European University Association
FAS Foras Aiseanna Saothair, National Training Authority
FE Further Education
FETAC Further Education Training Awards Council
GATS General Agreement on Trade and Services
\textbf{GATT} General Agreement on Trade and Tariffs
\textbf{HE} Higher Education
\textbf{ILO} International Labour Organisation
\textbf{IOT} Institute of Technology
\textbf{NCC} National Craft Certificate
\textbf{NDP} National Development Plan
\textbf{NFQ} National Framework of Qualification
\textbf{NQAI} National Qualification Authority of Ireland
\textbf{OECD} Organisation for Economic Co-operation and Development
\textbf{SBAS} Standard Based Apprenticeship System.
\textbf{TUI} Teachers Union of Ireland
\textbf{UNESCO} United National Education and Science Committee Organisation
\textbf{UNEVOC} United National Education Vocational Organisation Committee
\textbf{VET} Vocational Education and Training
\textbf{WB} World Bank
\textbf{WBL} Work Based Learning
\textbf{WTO} World Trade Organisation

\textbf{Brief biographies of authors,}

\textbf{Aidan Kenny.}
Aidan has been a staff member of the DIT since 1996, lecturing in the Plasterwork Department, School of Construction Skills, Faculty of the Built Environment. Having come from a construction trade background and serviced his time as an apprentice plasterer. While teaching in DIT Aidan was nominated as Subject Matter Expert for ITAC and as National and World Skills Examiner for the Department of Education and Science. During 2004 to 2006 Aidan was appointed as Qualification Framework Development Officer in Academic Affairs, Office of the Registrar. Presently Aidan is Project Manager of the Skills Research Initiative (SRI) based in the Directorate of Research and Enterprise DIT. Aidan also worked as Community Development Officer for the Clondalkin Partnership and was the elected Chairperson of Dublin Colleagues Branch, Teacher Union of Ireland (TUI) from 02-04. He has a BA (Hons) from DCU, major Psychology, minor Sociology and is a graduate member of the British Psychology Society, MSc. Education Training and Management DCU. Currently Aidan is studying for a Doctor of Education D.Ed. in Trinity College Dublin, dissertation working title, The Dynamics of Human Capital and the Labour Process in Higher Education: A critical theory perspective.

\textbf{Dave Kilmartin.}
Dave has been a staff member of DIT since 2000, working as a Careers Adviser with the Faculty of Applied Arts and is now Head of Careers. Dave has a very keen interest in Careers Education and has developed a problem based learning careers education module for Fine Art students. The Careers Service won an innovation award its one day careers education workshop which is available to all final year students in DIT. He is the co-ordinator of a module on the Diploma in Careers Guidance for the University of Reading. He is an active member of the Association of Graduate Careers Services in Ireland is currently Chair of the Heads of Service group. He has a BA (Hons) and MA from DCU in Communication and Human Studies. He also has a Higher Diploma in Careers Guidance from UCD.

\textbf{Ray English}
Ray has lectured in the DIT on a part and then full time basis since 1991 in the Sheet Metal Section of the School of Manufacturing and Design Engineering, Faculty of Engineering. Having served his time to the trade of Sheet Metal/Coppersmith he gained industrial experience in HVAC, Precision Fabrication and Aviation sectors amongst others. During his career in the DIT Ray has been nominated as ITAC Subject Matter Expert and has been Advising and Chief Advising Examiner for the Department of Education and Science National Skills Competition.
and has been an Expert and is current nominated Chief Expert in the World Skills Competition. He has a BA (Hons) from NUI Galway and is currently completing his MA.

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Appendix 1

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<thead>
<tr>
<th>Research conceptual framework round 1 review (Marco, Meso, Micro)</th>
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<tbody>
<tr>
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</tbody>
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Table 2

<table>
<thead>
<tr>
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Table 3

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<td>Knowledge (breadth)</td>
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<td>Know-how &amp; skill (Selectivity)</td>
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Table 4

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Table 5
Appendix 2


The priorities for the Employment and Human Resource Development Operational Programme Will reflect those of the National Employment Action Plan and will be organised under four Sub-Pro grammes to reflect the four pillars of the EU employment guidelines: Employability, Entrepreneurship, Adaptability and Equal Opportunities. The allocation is broken down as follows between the four pillars: Pillar 2000-2006 Allocation (£ million)

Employability 4,631
Entrepreneurship 413
Adaptability 4,647
Equality 202
Total 9,893

Employability

The Employability Sub-Programme will comprise a combination of Social Inclusion measures in the education sector and labour market integration and training measures. The Social Inclusion measures targeted at disadvantaged people will include:

• Early Education;
• School Completion;
• Early Literacy;
• Third Level Access Programme;
• Traveller Education;
• Career Guidance.

Among the Labour market measures will be:

• Active Measures for the Long-term Unemployed and Socially Excluded;
• An Action Programme for Unemployed;
• Early School Leavers progression to employment;
• Skills and Sectoral Training for the Unemployed and Redundant Workers.

Entrepreneurship

The Entrepreneurship Sub-Programme will comprise:

• Management Training for SMEs and
• The Social Economy Scheme.

Adaptability

Under the Adaptability heading there will be measures for:

• Lifelong Learning including a Back to Education Initiative to complement the early interventions under the Employability Pillar;
• Skills Development;

Extract NDP 2007-2013 p 20

Priority III: Human Capital

Total investment under this Priority is as follows;

Human Capital Priority 2007-2013 \m Current Prices

Programme Total
Training & Skills Development 7,718
Higher Education 13,017
Schools Modernisation & Development 5,061

Human Capital Total 25,796

Ireland’s track record in education investment has been fundamental to generating our economic success. The main objective of the proposed investment of €25.8 billion over the Plan period is to maintain access to the highest standards of education for all in our society, to meet the labour skills requirement of the future and to focus investment in particular on developing the key Third Level Sector. Key features are:

• Over €2.8 billion will be invested in training and skills development programmes, including employment training, apprenticeships, new skills training for adult workers and programmes for school leavers;
• Nearly €4.9 billion in training and development programmes for a wide range of groups, including lone parents, people with disabilities, Travellers, ex-offenders and other categories requiring special interventions (this will also support the goals in the social inclusion priority);
• €13 billion for Third-Level Infrastructure and for ongoing costs of the sector in the context of the
promotion of strategic and structural development; and
• €5 billion in First and Second Level schools modernisation and development