

Towards the sustainability of Work Integrated Learning Curriculum in Europe

Abstract

The Europe 2020 strategy puts the relevance of education systems at the heart of European Union (EU) efforts to improve competitiveness and achieve smart, sustainable and inclusive growth. Work Integrated learning (WIL) has a key role to play and it has been a central element of higher education programmes in areas such as medicine and teaching for many years. However WIL remains a relatively small part of Higher Education (HE) overall and there remain a number of institutional, pedagogical and ideological objections which continue to hamper its wider development in most EU States.

This paper draws on a review of the literature and fifteen case studies from across Europe to identify a framework and a set of factors that may be used to underpin the development and sustainability of WIL programmes in HE. The case studies reflect a range of specific programmes across a wide range of disciplines, at various levels (e.g. undergraduate, postgraduate) and duration (2-4 years). A cross case analysis is undertaken using the key elements of a systemic curriculum development cycle (identification of labour market need, planning, delivery and evaluation) and the concept of intellectual capital (Stewart 1997) is used to identify a set of key factors to support the development and sustainability of WIL.

The analysis highlights curriculum as a dynamic framework guiding teaching and learning processes as well as acting as a steering mechanism for the quality of specific programmes. The analysis suggests some variation between member States, particularly related to the national regulatory environment. However, there are often similarities in the factors which impact on the successful development and implementation of WIL which can be used to support employer-university partnerships and the Institutional Capital necessary to develop and sustain WIL.

Introduction

European Policy is placing an increasing emphasis on involving employers and labour market institutions in the design and delivery of higher education programmes, supporting staff exchanges and including practical relevance in courses that can help to attune curricula to current and emerging labour market needs whilst fostering employability, entrepreneurship and innovation (EC, 2010). At the heart of this approach lies the development of partnerships between Higher Education Institutions (HEIs) and employers as a means of improving the relevance of education and facilitating access to education and learning (EC 2011). The policy has the objective of bringing together business and academia to address public, private and third sector innovation and skills gaps which hamper productivity and competitiveness through the design of new curricula and programmes and the modernisation of universities towards inter-disciplinary, entrepreneurship and stronger business partnerships (EC 2011a). Reform of Higher Education and the integration of employer and labour market interests in the curriculum are seen as a key to achieving the goals of smart, sustainable and inclusive growth outlined in the Europe 2020 strategy. The knowledge economy brings new challenges for higher level skills and demographic changes forecast a future European labour market which will be simultaneously confronted by an ageing population and shrinking cohorts of young people. Young people need relevant knowledge and skills to enter and progress in the labour market and older workers will increasingly be called upon to update and broaden their higher level knowledge and competencies through continuing development. This leads to the requirement for more work relevant education, flexible modes of delivery, and new forms of validation of learning. Distance learning, e-learning and the recent development of open universities in a number of countries, illustrate how the traditional HE landscape is changing in Europe (EC 2012). However, policy analysis suggests that European education and training systems have been slow to respond to the requirements of

the knowledge society, failing to adapt curricula and programmes to the changing needs of the economy and labour market (EC 2011).

It is within this landscape that the Work-Based Learning as an Integrated Curriculum (WBLIC) study was funded by the Education, Audiovisual & Culture Executive Agency (European Commission). WBLIC, a two-year research project (2011-2013) involving partners from seven European States, aimed to support the development of curriculum which connected a range of HEI programmes with current and future labour market needs. The project sought to raise awareness of issues associated with the development and implementation of Work Based Learning and introduce the concept to EU States where it is not already established.

Methodology

The applied nature of the WBLIC research project influenced the design of the research methodology. A pragmatic approach (Tranfield and Starkey 1998) to research following practitioners or policy makers' agendas, in contrast to 'pure' areas where research is largely dictated by the linear and logical development of an academic agenda was adopted for this study. The strengths of this approach, including its ability to help to understand the nature of the policy problem and triangulate data (Creswell 2003) as well as providing an insight into 'what works' (Patton 1990), were key factors in the selection of this approach.

A case study approach (Glatthorn 1985) was chosen to develop a rich picture of programme development in HEI's in Austria, Czech, Finland, Germany, Poland, Spain and the UK. A variety of stakeholders including students, employers, teaching staff, programme leaders, administrators, HEI strategic planners and labour market intermediary organisations contributed to the data collection underpinning the case studies.

One of the first challenges facing the WBLIC project was to develop a shared understanding of diverse multiple realities and epistemologies of work-based learning (WBL) amongst project partners and to establish a common discourse to move the project forward. A wide range of terms is used interchangeably for the concept of WBL across Europe including work integrated learning, workplace learning, work-related learning, vocational learning, flexible learning and problem solving. This often leads to conceptual ambiguity with each concept open to multiple and different interpretations. WBLIC focussed on WBL as a key part of a higher education award and we set aside the wealth of theory and practice associated with less formal workplace learning. The project partners also agreed to view short unstructured work placements, ‘real world case studies’ and ‘simulated workplace learning’ as outside our definition of work-based learning for this project. This formulation provides the basis of our definition of Work Integrated Learning (WIL) used in this paper.

The focus of WBLIC lies in the integration of first hand workplace experiences and theory as a key element of accredited university outcomes as part of a curriculum that balances vocational interests that are judged to be important for the world of work with higher level critical thinking skills associated with academic learning. A working definition of curriculum drawing on research at the European level by Cedefop (2010) is set out below:

‘A document (or a collection of documents) and process providing the framework for planning and delivering learning experiences which matches learner and employer/labour market needs. Depending on the country, the type of education and institution, curricula may define (but not be limited to) learning outcomes, disciplines and contents, teaching and learning methods, duration/timetables, place of learning, assessment regulations, entry requirements and progression, qualifications of teachers and trainers, reference materials’

A common semi-structured discussion guide to collect data was designed and agreed with researchers in each European State. This discussion guide was based on a conceptual framework drawing on a version of a development cycle for curriculum development which envisaged four phases progressing from the identification of labour market need, through planning and delivery to evaluation of the curriculum. Although the model implies a linear process, the phases are interconnected and often iterative in practice. The key differentiating factor associated with WBLIC is the extent to which employers influence the development and delivery of the curriculum throughout the cycle.

The multi-national nature of the research required in-depth briefings to ensure that the focus and intention of the questions were understood by the researchers and issues surrounding the interpretation and recording of responses were recognised and understood. In this way bias due to inter-interviewer variations could be minimised.

Interviews were conducted with at least one interviewee from each stakeholder group (e.g. programme leaders, academic planners, employers and students) and potentially several from some groups contributed to the case studies. The discussion guides were designed to be used flexibly and the duration of interviews ranged from under an hour to almost two hours.

Interviews were digitally recorded and a written summary of the key issues from each interview was produced. In addition to primary data collection, the case studies collected relevant secondary data (e.g. curricula design guidelines, course specifications) and drew on other secondary sources to inform the development of the case studies as appropriate. Each case study was written up in a common format (typically 3,000-4,000 words in length) providing a description of the national and institutional context and the characteristics of the programme at each phase of the development cycle.

A largely non-prescriptive approach to case study selection was adopted within a sampling strategy which aimed to ensure that the case studies reflected a broad range of qualifications levels, disciplines, and curricula (see Appendix 1). The concept of Intellectual Capital (Stewart 1997) was used to inform the development of the probes used to support data collection and subsequent analysis. Whilst there is no settled definition of intellectual capital it can be seen as comprising of three key elements:

- Customer or relationship capital which is founded upon the value of relationships with key stakeholders such as suppliers, allies, and customers.
- Structural capital consisting of the organising capability of an organisation as expressed in formal instruments, policies, regulations, procedures, codes, functional business units, task groups, committees or less formal culture, network and practices.
- Human capital consisting of the skills, competencies, and abilities of individuals and groups. These range from specific technical skills to “softer” skills, like the ability to work effectively in a team. An organisation’s human capital refers not only to individual talent but also to the collective skills and aptitudes of a workforce.

Drawing on the experiences of two organisations, Garnett et al (2008) found that effective provision of WIL within HE involves a number of structural and human capital issues that are essential to the effective delivery of this type of provision. This paper further develops the analysis and discourse, drawing on a cross case analysis of fifteen case studies from Europe and highlighting the key role that relationship capital also plays in the successful development and delivery of WIL.

Data Analysis and Reporting

The cross case analysis is based on a review of each unique case study describes the factors associated with the successful development of a curriculum containing a WIL dimension.

These factors are classified to reflect the characteristics of the three ‘types’ of Intellectual Capital identified above and key features associated with good practice are identified.

Relationship Capital

The case studies suggest the development of Employer-HEI relationship factors can be one of the most challenging areas of WIL development. These relationships can be difficult to initiate, develop and sustain and considerable commitment and expertise is required to enable this to happen successfully. The case studies provide a number of features of good practice including:

- The use of a range of labour market intelligence to connect HEI programmes with existing and forecast needs of the economy and to sustain employer-HEI relationships.
- The development of a strategic approach to engaging employers which may include for example, effective relationships with social partners and intermediaries or the allocation of resources to a central office, academic departments and/or individual academics that recognise the development and sustainability of relationships with employers as a key part of their role.
- The use of a range of approaches to initiate and develop employer relationships including open events, networking activity with local and regional business networks, student placements, consultancy activity and individual programme advisory boards.
- The ability to respond in a positive and timely manner to company requests for university services
- The need to demonstrate benefits of HEI-employer partnership working at an early stage of the relationship and throughout the WIL process. Learners may require encouragement to use their knowledge and skills in the workplace and company representatives need to be able to recognise the impact that this has on performance at work.

- Positive relationships established in the past with students subsequently in positions of power and influence can be a significant source of relationship capital. Similarly students involved in continuing professional development at an HEI can provide means of employer engagement. HEIs need to view these relationships as an asset to be used for example to target and engage employers with a positive disposition towards establishing employer-HEI ties.
- Negotiated contractual agreements can help to jointly determine processes, outputs and outcomes and provide a basis for determining and managing employer, student and HEI expectations whilst also providing a basis for quality control and conflict resolution.

A member of university staff liaising with the company and the academe was identified in most cases as central to the success of the university-company relationship. These individuals played a key role ‘selling’, developing, co-ordinating (and in some instances delivering), evaluating and managing the work-based programmes and appear to be a key factor to opening and sustaining successful university-business partnerships.

Structural Capital

The case studies suggest that developing the structural capital of HEIs to support WIL can be a political activity as it often challenges the status quo across a range of critical areas including pedagogy, resource allocation, quality assurance frameworks and organisational structures. The findings emerging from the cross case analysis provide an insight into the nature of the actions required to provide the structural capital required to successfully develop and deliver WIL. These include:

- Those HEIs using WIL most extensively appear to have developed a strategic approach to its development and implementation. This has included integrating a

vision for WIL in strategic plans and allocating resources to take WIL forward at an institutional (as opposed to programme) level.

- The case study evidence suggests that the development of curriculum planning guidelines and procedures (including e.g. Recognition of Prior Learning, programme validation, assessment and ethical frameworks) which are as responsive to employer interests (e.g. timeliness, assessment methods) as they are to HEI/student interests are an important factor enabling responsive provision to be developed whilst fulfilling the requirements for quality assurance processes in HE.
- The case studies suggest that formal learning agreements that reflect the tri-partite interests of the HEI, student and employer are an essential element of most WBLIC. They are likely to include formal written agreement of the employer, learner and HEI representative centred on what is to be learnt, the resources and strategies to assist in learning it, what will be produced as evidence of the learning and how it will be assessed.
- An effective e-learning environment is identified as an essential element in the delivery of a WBLIC in some case studies.
- Adequately resourced systems and processes to support employer, student and HEI learning including pastoral support and conflict resolution are required to maintain and develop HEI-employer partnerships.

The case studies suggest that staff development activity is required to ensure that the team developing and delivering WIL has the necessary knowledge and skills to succeed. Areas for development across the team include targeting and marketing to employers, account management, mediation and conflict resolution, pedagogy and awareness of WIL regulations (including quality assurance).

Human Capital

A range of actors are involved in the development and delivery of WBLIC. These include internal and external academic staff, administrators, professionals, practitioners, employer representatives and the students themselves. The skills, competencies and abilities of these actors and groups are a key factor in the success of WIL. The case studies suggest a number of key actors and their roles include:

- A champion or coalition of champions within HE and business environments with the power and the skills to influence the development of WIL at the programme and/or strategic levels of the HEI.
- The formation of effective multi-disciplinary development teams drawing in a range of actors in the formative stages of programme development and at various times during the lifetime of the programme.
- A Programme Leader and/or Academic coordinator with the ability to plan, search and select employers, students and teaching staff (including non-faculty professionals) to assess, monitor and improve the programme.
- An administrative co-ordinator to collect the information to service HEI quality assurance, employer and student information requirements and to ensure that the academics and professionals delivering the programme have the time to focus on learning related activity.
- A company tutor who is able to support learners in the workplace (e.g. facilitate project work and assessment). This may be a member of a Faculty or a representative of the company who will liaise with academic staff. Some HEIs choose to provide support to develop the skills and knowledge of those undertaking a company tutor role.

- The key role of the tutors delivering the programme is identified in most of the case studies. They often require a different knowledge base and skill-set to that employed in traditional undergraduate provision. Key tutor skills and attributes include negotiation, facilitation, flexibility, resilience in addition to core academic skills and discipline knowledge.

Results and discussion

The cross case analysis highlights some key features associated with the successful development of WIL-related programmes in several EU States – Austria, Czech Republic, England, Finland, Germany, Poland and Spain. The findings are not exhaustive however they provide a foundation for the identification of some common key features underpinning the development of the Intellectual Capital required to develop and sustain WIL programmes.

The use of the Curriculum Development Cycle enabled the study to surface some of the challenges associated with integrated curriculum development both within and between the interconnected phases of curriculum development. The case studies suggest a process supported through employer-HE-student relationships based on dialogue, reflection and work where integration involves the application of formal theory with real-world problem solving, abstract thinking and practical action (Stenstrom and Tynjala 2009). This tri-partite approach throughout the development cycle leads to a recognition of the important role that the employer plays in this process and highlights the key role that the development of relationship capital plays alongside the development of the human capital of individual learners and the structural capital of HEIs.

WIL often challenges the traditional role of HEIs as disseminators of knowledge through coded generalisations of ‘universal truths’ to meet a societal need. Knowledge itself is

becoming increasingly commodified and practice based and it is increasingly legitimised through its capacity to enhance performance in the workplace (Edwards and Usher 2000). EU policy for a smart, inclusive and sustainable society is predicated upon the application of such high level knowledge in business and HEI related WIL has a key role to play in taking this policy agenda forward. However, the structure of HE systems and the Institutional Capital of HEIs (and employers) often inhibit the ability of WIL to realise its potential in this respect.

The structure of many HE systems can be characterised by traditional ‘research-based’ and ‘applied’ institutions and these impact to varying degrees on the development of WIL in EU States. The prevailing culture, particularly of the more traditional universities still tends to view WIL as inferior to more traditional ‘academic’ learning and rarely (although there are some examples where this is changing) embraces a legitimate role for higher education in response to labour market needs. Amongst the Russell Group, a self-selecting elite group of UK universities, there is a strong resistance against recognising any learning that the university has not controlled (Mumford and Roodhouse 2010).

Applied HEIs vary widely in the extent to which they develop and sustain relationships with employers. In some EU States, Universities of Applied Science (UAS) have a regulatory requirement to engage with companies through the curriculum. However, even in these States, the case studies suggest that WIL programmes remain a peripheral element of overall provision in many HEIs. Where employer-university relationships and learning experiences have developed, they appear localised, driven and sustained by particular circumstances and individual champions. Other research has found that the leadership and management of WIL is a critical and essential role and yet all too often it is left to (often entry level) academics at the programme level (Cooper et al 2010). Very few HEIs appear to have developed the structural capital required to incorporate the principles and processes of WIL within an Institutional Framework through for example articulating a vision that sets the direction for

future planning, adequately resourcing the initiation, development and sustainability of employer-university relationships, and developing the policies and procedures necessary to support the development of WIL programmes and modules whilst maintaining academic quality standards. At the same time, whilst some employers, often large organisations have at least in part, the institutional capital necessary to develop and sustain HE accredited WIL, many employers, particularly small and medium sized enterprises lack the resources to engage, develop and sustain it.

Conclusions

The European policy context and political consensus is clearly favourably disposed towards WIL given the significant role that a flexible HE system, responsive to the needs of the labour market, is seen to have to play in the transition towards a smart, sustainable and inclusive economy. However, both demand from employers and supply from HE is yet to be mobilised on a substantial scale and WIL programmes appear to constitute a relatively small element of overall HE provision in many institutions and nations.

The national regulatory frameworks in EU States have a significant influence on the institutional context surrounding the development of WIL curricula developed in partnership with employers. Where a national framework facilitates it, HEIs have a choice to make in terms of the extent to which they engage with the WIL agenda and they exercise this choice to varying degrees. Much development to date appears to be 'bottom-up', led by enthusiastic champions within universities, often battling against systems and academe that may be resistant to curriculum change and innovation influenced by the labour market. However, where Institutions have embraced the concept and developed the systems and processes to support its development and implementation, WIL appears to develop and sustain and generate positive outcomes for learners and business. It does however appear to be a relatively expensive form of HE and careful consideration of the costs and benefits of WIL

needs to be undertaken by policy planners at the Institutional and national levels. Leadership from national governments and their relevant departments has a key role to play in providing a vision for WIL and incentivising change within national systems. HE policy needs to encourage the development of the Institutional Capital necessary to support WIL and to provide further stimulus to the reforms of the Education system necessary to promote the university-business partnerships that lie at the heart of the development of a smart, sustainable and inclusive economy.

Acknowledgements

Work-Based Learning as an Integrated Curriculum (WBLIC) was funded by the Education, Audiovisual & Culture Executive Agency (European Commission). The author would like to thank partners for their contributions to the WBLIC project; Stefan Humpl (3s), Aleksander Surdej (Cracow University of Economics), František Freiberg, Petr Žemlička (Czech Technical University in Prague), Susan Prosel (DAA), Maria Reina Ferrandez, Maribel Bea (University Jaume I Castellon), Johannes Haas (FH Joanneum UAS), Sallyann Halliday, Jayne Mothersdale (Leeds Metropolitan University), Tauno Kekäle (Vaasa UAS) and Brian Whittington (Independent Consultant). Responsibility for the content and conclusions rests solely with the author.

References

- Cedefop (2010) Learning outcomes approaches in VET curricula: a comparative analysis of nine European countries. Luxembourg. Publications Office
http://www.cedefop.europa.eu/EN/Files/5506_en.pdf
- Cooper, L., Orrell, J. and Bowden, M. (2010) Work Integrated Learning. A guide to effective practice. London and New York. Routledge.
- Creswell, J.W. (2003) *Research Design. Qualitative, Quantitative, and Mixed Methods Approaches*. 2nd Edition. London. Sage Publications.
- EC (2010) Communication from the Commission Europe 2020. *A Strategy for Smart, Sustainable and Inclusive Growth*. Retrieved from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>
- EC (2011) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Supporting growth and jobs – an agenda for the modernisation of Europe’s higher education systems* Retrieved from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0567:FIN:EN:PDF>
- EC (2011a) *State of the Innovation Union 2011*. Retrieved from http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2011/state_of_the_innovation_union_2011_brochure_en.pdf#view=fit&pagemode=none
- EC (2012) Bologna Implementation Report. Retrieved from [http://www.ehea.info/Uploads/\(1\)/Bologna%20Process%20Implementation%20Report.pdf](http://www.ehea.info/Uploads/(1)/Bologna%20Process%20Implementation%20Report.pdf)

- Edwards, R and Usher, R (2000) Research on Work, Research at Work in J. Garrick and C.Rhodes (eds) Research and Knowledge at Work. London. Routledge.
- Garnett, J., Workman, B., Beadsmore, A. and Bezencenet, S. (2008) Developing the structural capital of higher education systems to support work-based learning programmes in Work-based learning: Workforce development: Connections, frameworks and processes . York. The Higher Education Academy.
- Glatthorn, A.A. (1985) Case study: *An overview of One Kind of Research*, University of Pennsylvania, PA.
- IES/IRS/BIBB (2012) *Study on a comprehensive overview of traineeship arrangements in Member States*. [online] Retrieved from <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=6717>
- Mumford, J. And Roodhouse S. (2010) Understanding Work-Based Learning. England/USA.Gower.
- Patton, M.Q. (1990) *Qualitative Evaluation and Research Methods*. Newbury Park, CA. Sage.
- Stenstrom, L-M and P. Tynjala (eds) (2009) Towards Integration of Work and Learning. Strategies for Connectivity and Transformation. Netherlands, Springer Science and Media
- Stewart, T.A. (1997) *Intellectual Capital: The New Wealth of Organizations*. New York. Doubleday
- Tranfield, D. and Starkey, K. (1998), The nature, social organization and promotion of management research: towards policy, *British Journal of Management*, 9, pp. 341-53

Appendix 1

Table Case Study Characteristics

Country	Course/Qualification	Institution	Work based element
Austria	BSc Mechatronics and Management	University of Applied Science, Upper Austria	Subject overarching project and thesis
	BA Social Work	University of Applied Science, Vienna	Practicums in year 1, 2 and 3 (20 weeks in total)
	Production Technology and Organisation (Bachelor)	FH Joanneum University of Applied Science	Three-month block of lectures followed by three months with an employer. This rotation continues throughout the four year programme
Czech Republic	PG dip/Masters in Modern Railway Vehicles	Czech Technical University in Prague	Involvement of employers in practical projects, lectures, and short term practical training.
	Masters in Mechanical Engineering with specialisation in management and economics of enterprise -	Czech Technical University in Prague	Lectures provided by managers of companies, reflexive project work and learning
England	Masters in Strategic Communication	Leeds Metropolitan University	Majority of the learning undertaken through reflexive project work
	BA Business Leadership and Corporate Management	Northumbria University	1 st year in HEI, year 2 and 3 largely at work
	Work Based Integrative Studies (variety of levels)	University of Chester	Mostly at work, reflexive learning
Finland	Company Clinic	Vaasa University of	Research and development project

	(variety of levels)	Applied Sciences	(variable up to 50% of a programme)
Germany	Prozesstechnik (Bachelor)	University of Applied Science, Aachen	Variable
Poland	BA Applied Informatics	Cracow University of Economics (CUE)	Placement 120 hours. 15hr/week probation in companies for best graduates
Spain	Innovation Engineering in Processes and Products (undergraduate)	IMH/Universidad del Pais Vasco	Company placements in year 1,2 and 3
	Innovation and Development of Business Project (Master)	Florida Universitaria (Universitat de Valencia)	Project based up to 375 hours