A Framework for Work-Based Learning: Basic Pillars and their Interactions

Abstract:

Purpose: European policy is placing an increasing emphasis on involving employers and labour market institutions in the design and delivery of higher education programmes that match curricula to current and future needs of the economy. The aim of this paper is to investigate the curriculum development process for work-based learning (WBL) programmes and to connect it to the basic pillars, organizational and pedagogical strategies and key moments that enable higher education institutions to foster students' learning, employability and innovation.

Design/methodology/approach: Case studies of 14 European WBL programmes in Higher Education are reported using interviews and document analysis. The development of a final framework and examples of practice are based on them.

Findings: Drawing on the concept of institutional capital, a framework for the development of WBL programmes which includes three basic pillars (Human Capital, Relationship Capital and Structural Capital) is proposed. Interactions between these pillars are necessary to enhance learning quality (Doctrine), provide authentic experiences (Authenticity) and respect the ways of developing and delivering WBL in Higher Education Institutions (Culture).

Research limitations/implications: While selecting a small sample of cases on a basis of 'good practices', some important pitfalls have not been discussed. Thus, rather than promoting a definitive theory, we promote a framework of issues that at least should be taken into account in different stages of planning, delivery, and reflection of WBL learning programmes.

Originality/value: 14 case studies from programmes recognized in 6 European countries and the development of an original WBL programme planning, delivery & evaluation framework that can also be used as a checklist for the HEIs organizing work-based learning programmes

Keywords: work-based learning; higher education, curriculum development, student's learning, market needs, organisational practice.

Paper type; Research paper

Introduction

The development of partnerships between Higher Education Institutions (HEIs) and employers is seen as a crucial factor in identifying learning requirements (Bruges Communiqué, 2010; Bucharest Communiqué, 2012), improving the relevance of

education and facilitating access to education and learning. According to these statements, curricula should involve employers and labor institutions, and must respond quicker to the changing needs of the economy. The problem with implementing such work-based learning (WBL) is that higher education systems have been slow to adapt their activities in general, and their curricula especially, to these changes (EC, 2012). Despite the benefits for students, organizations and society from WBL that are becoming increasingly recognized (Cedefop, 2013) there remains considerable resistance to changing traditional university curricula largely based on massification and "pure contents" (Nowotny et al. 2001) into more flexible and individual curricula influenced by the needs of the current or future labour market. The benefits of WBL may not beso evident in the short term as they may become in medium to long term and crossing the boundaries between higher education and industry brings new challenges to academia .

This paper draws on the experiences and results of a project funded by the Erasmus LLP programme. The Work-Based Learning as an Integrated Curriculum (WBLIC) project engaged seven partners from six European countries and sought to develop a framework to support the development of WBL in different member states.   14 case studies were developed to inform the development of a a framework thatwould be useful for higher-education institutions and their stakeholders in planning WBL programmes.

Some conceptual considerations

WBL is a multidimensional and somewhat contested term. For the purposes of this article, we have used a definition of WBL adapted from Garnett (2005) where WBL is viewed as a learning process which focuses university level thinking upon work (paid or unpaid) in order to facilitate the recognition, acquisition and application of individual and collective knowledge, skills and abilities to achieve specific accredited outcomes of significance to the learner, their employer and the university.

Our starting point for the development of the Framework wasthe classic cycle used to describe curriculum and programme planning and delivery (Contreras, 1991). This framework has been adapted to incorporate an external labour market perspective where the needs of industry and employers grew in influence and sometimes acted as the key drivers of programme development.

The concept of Intellectual Capital (Stewart 1997) has been used previously by reasearchers exploring the development and delivery of WBL in Higher Education (HE). For example, drawing on the experiences of two organisations, Garnett et al (2008) found that effective provision of WBL within HE involves a number of structural and human capital issues that are essential to the effective delivery of this type of provision. We have drawn on this approach and added a further dimension, relationship capital, to reflect the

key role that employers and other external stakeholders in the economy play in the development of WBL (Figure 1).

INSERT Figure 1

In this article we further develop our analysis and draw on the case studies from across Europe to emphasize the learning of the student (Brennan & Little, 1996, Raelin, 2008) and to highlight the key role that the interactions between the elements of institutional capital play in the successful development and delivery of WBL.

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The following sections will try to emphasize the different strategies described in the cases, collected in order to facilitate all the elements raised by Garnett paying special attention to those related to the student learning opportunities as it is the main goal of this paper.

Initial framework

Case study methodology

The applied nature of the study influenced the design of the research methodology and 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. Whilst this may be challenged from various philosophical perspectives, the strengths of this approach, including its ability to help to understand the nature of the 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. 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 the conceptual framework drawing on the 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. This framework has been one of the most traditional frames for describing an educational programme (Contreras, 1991) and it has been used in other similar studies (Whittington & Ferrández-Berrueco, 2007). 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.

Interviews were conducted with at least one interviewee from each stakeholder group and potentially several from some groups (such as students and employers) 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 in english 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)

Comparisons are possible following the two basic case study methodologies (Caïs, 1997): Case comparison (longitudinal) and variables (stages of the cycle) comparison (cross-cases). The first one illustrates the "natural story" of the programme making it possible to understand the decisions inside its own context. The second allows us to compare among the cases the key differentiating factors associated with WBLIC. In this article we have used both methodologies putting the focus on the learning opportunities provision and paying attention to the organizational strategies that illustrate this provision. For that purpose, we must build a new framework that facilitates the data analysis. Nevertheless, it must be taken into account that the main goal of this article is not to compare the practices, but to contrast them against what the literature informs us is a good practice.

Cases collected

The countries selected naturally differ somewhat concerning their university systems. Given that the UK has a much longer history of WBL than the other case countries, it comes as little surprise that the largest number and the most elaborate WBL arrangements can be found there, followed by examples from Germany (In Germany, 'work-integrated learning' seems to be the more widely used term), while in the other countries examples of WBL in higher education tend to be quite rare. However, Austria, Germany and Finland have a dual system of Universities, some are more traditionally oriented and some more vocationally oriented (Universities of Applied Sciences, *Fachhochschulen*). In the latter, work-based learning is quite widely practiced, and the traditional Universities are picking up some of the models,

Spain has mostly traditional Universities, although some smaller Universities connect University and Vocational programmes. When talking about work-based learning in Spain, it almost exclusively refers to work placements. Spanish universities increasingly incorporate work placements into their curricula, although this trend is a relatively recent one.

As a former socialist country, *the Czech Republic* has a history of strong ties between universities and the industry, but the cooperation was abandoned at the end of that era.

Work-based learning (through placements) in undergraduate (Bachelor's) courses is mainly a problem of funding – it is considered expensive and thus it is mainly provided at Master's degree level. A new higher education law, which is currently being prepared, is expected to promote the division of HEI into research and non-research universities, and to increase the involvement of companies in university education (e.g. through mandatory work placements). Likewise, *Poland* has a history of strong ties between universities and the industry, but the cooperation was abandoned at the end of the Communist era. In recent years though, attempts have been made to improve the cooperation between HE and the labour market, e.g. through forming partnerships between HEIs and employers. However, there is a need to make these partnerships more sustainable and systematic. HEI in Poland have currently little familiarity with the use of work-based learning to develop professional skills.

Thus, we have four distinctive groups of countries with different orientations to WBL. In the UK, WBL has been discussed and also practised for decades. Germanistic countries (Germany and Austria among our cases) – and since 15 years ago also Finland – run a dual HE system with a traditional and a more WBL-oriented "Applied Science" University structure. The communistic countries used to have a very practically oriented, specialised universities (e g railway universities, mining universities, agricultural universities etc) but the connection between work and academic learning has been mostly dissolved in the 1990s and early 2000s and is slowly being restructured. Finally, the discussion is starting and the early stages of implementation are being tested in Southern-European Latin countries, such as Spain, where the traditional University seems still to exist in its purest form.

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	1st 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 (variety of levels)	Vaasa University of Applied Sciences	Research and development project (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	Industrial 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

As illustrated in the table above, the case studies reflect a range of programmes across a variety of disciplines, at different levels, on WBL elements that vary in timing, nature and intensity (some of these cases are briefly described in Ferrández-Berrueco and Kekäle, 2014). Some universities have developed a strategic approach to the management and development of WBL programmes at the institutional level. This approach is illustrated by the Work-Based Integrative Studies Programme developed in the University of Chester, in the UK, where the curriculum development process is based on pre-validated module templates and a streamlined validation process for bespoke modules commissioned and designed on a collaborative basis by employers and learners working in partnership with the university. In more traditional programmes, the majority of WBL elements involve at least one period of placement for the student however the duration, and location may vary considerably. For example the Production Technology and Organisation Programme in Austria draws on the cooperative model pioneered in the United States and based on alternating periods of three months in work and three months in the classroom in the first two years and then 6 months in work and in the classroom for the remaining time. Whilst stimulated by the interest of interactions between a member of the acadame and a major local employer the programme now includes a range of large and small employers in the region. The Bachelor of Industrial Engineering in Spain placement periods are typically three days in the company and two days on campus although once per month the student spends three days in the classroom and two days in the company to reflect a shift in emphasis towards theory. The final year of the programme includes a twelve-week placement in a company outside Spain. In some of the case study programmes, the Masters in Strategic Communication for example, the students are full time employees of a very large organisation and attend the university infrequently. This programme is based on a curriculum that is negotiated between the employee (learner), employer and university and is a dynamic form of university based WBL provision (Willis and McKie, 2011).

These examples illustrate the diversity of practice that only scratch the surface of the richness of WBL curricula. Many programmes have an element of Recognition of Prior Learing, use a variety of forms of delivery, use non-traditional teaching staff and have different forms of assessment procedures and this diversity presents a significant challenge to the development of an overarching framework to embrace the different forms of WBL and programme characteristics.

The Basic Pillars

The initial framework based on the curriculum development cycle does not seem to be enough to guarantee that a WBL programme maximizes the learning opportunities in terms of Garnett's (2005) *significance learning outcomes*. So, how can we decide if any practice can be deemed good practice or not? Is any practice valid just if it is developed in a workplace, or if it has been designed between employers and academics? We were

not sure of all this unless there was a proof or evidence that guaranteed that a practice enhanced learning opportunities for students. Here is where we need to go deeper this initial framework finding out which basic elements are contained in each stage.

Thus, if we make a quick definition of each of the initial stages we will find that we are talking always about at least one of these elements that work as basic pillars in the Garnett's (2005) definition of WBL: *Participating organizations*, *Programme structure,* and *People involved.*

In this way, the Market need stage deals with the *external organizations* labour force demands. The Planning and designing stages are related to the relationship between the internal (HEI) and external *participating organizations* in order to develop an integrated *programme.* Delivering and evaluation always reference the *programme* and they are carried out by all the agents (*People*) involved in the programme.

The balance between these pillars is actually which builds the programme assuring that the all the Garnett requirements are taken into account and, because of that, also responsible to facilitate learning. So, talking about WBL, the developing cycle must leverage these three pillars in order to maximize the interaction among them, so that also students' learning can be maximized (Fig.2).

PUT FIGURE 2 ABOUT HERE

The next pages will explain these key elements as a way to help programme developers to organize a WBL programme practices and decide whether they are really good for WBL.

As it has been said, the decisions made about the Basic Pillars will produce specific interactions. The main goal of a programme developer team should be to maximize these interactions since learning depends on them.

The three Basic Pillars are an inseparable part at developing any HEI programme based on WBL principles.

Participating organizations

 Two main types of organizations take part on Work Based Learning. Their interaction and the quality of their relationship are essential on building a WBL programme (Whittington & Ferrández-Berrueco, 2007).

The key agent of WBL, the **External Company/Enterprise**, makes the difference between a traditional and a work-based programme. It is the place where the learning content has to be based. But they cannot operate as autonomous hosts; they are one of the agents of *the tripartite relationship of student, HEI and employer* (McEwen et al. 2010

p.64). Otherwise, there is no integration. **Higher Education Institution**, then, is the coordinator of the work-based learning. It is the main responsible for the programme to work well and responsible of awards. Ultimately, it is the responsible of guaranteeing the standards and facilitating learning. *HEI can provide access to a range of conceptual bases, premises for procedures an access to norms associated with a particular occupation. Moreover, academic settings can provide experiences in which to reflect upon this knowledge, and what is experienced in other settings, such as those where practice is conducted.* (Billet, 2009, p.838).

Cases report different examples of how this relationship is established and who takes the initiative, In the case of Strategic Communications in the UK and the Modern Railway Vehicles in the Czech Republic, it was the external organisation which initiated the relationship , while in most other cases, is the HEI.

At the same time, cases also show different levels of the company's involvement from a simple interaction in which companies are simply guests and do not have a real role in the curriculum design to a total integration in which Companies and HEI work side by side. These different levels of involvement cannot be always attributed to contextual issues as regulations or flexibility and can be attributed to the tradition and practice of HEIs.

For example, the Spanish cases provide an illustration of companies taking part in the Social Council of the universities. And as member of this Council they should approve all the programmes, but most of times they are not part of the design body, which usually is carried out by university academic staff. "So we don't feel really represented in the study programmes we are approving". Nevertheless, both Spanish cases come from Consortiums or Foundations where universities and companies are part of the same body.

Programme structure

The second basic pillar of the framework is the **programme structure.** We are dealing with a special kind of programmes in which interaction with the real world is the keystone. So, simulations, case studies, real practices that take place in a specific period of the education process (as a whole or inside a module) are the kind of activities demanded. That is, they are part of the programme, so these real practices inside or outside classroom must be integrated to the theory. This fact is also distinctive in a WBL programme. A traditional programme doesn't need to go out the classroom or HEI institution either simulate it. There is a need to guard against these provisions only reproducing occupational capacities (Garnett's "university level thinking"), important though these are, and failing to develop the kinds of critical capacities that are required for professional practice (Billet, 2009 p. 828). The *practice* must enable learners to take appropriate roles in the work place in order to learn and apply skills they have learned on the programme. (Burke et al. 2009, p.15) On the other hand, there are also learning activities outside work that contain *theory* that is selected on the basis of the work life, and that prepare people for work (Burke et al. 2009, p.27).

In this sense, we have to mention that all the cases collected, respond to a certain group of programmes in which WBL was not a tradition. That is, Teaching and Health areas were discarded as they were assumed to be aware of the importance of WBL as they have a traditional focus on this type of teaching and the intention of the WBLIC project was in part to promote WBL in those areas where such integration is not so evident and traditional. The project was particularly interested in examples where the skills and abilities valid for the employer were integrated with the HE critical thinking skills and subject knowledge characteristic of HE curriculum. Thus, the definition used for integrated curriculum was adapted from Cedefop (2010) "A document (or a collection of documents) and process providing the framework for developing and delivering learning experiences which matches learner and employer/labour market needs". Thus, in all the concepts and modalities of WBL, the main differentiating factor is the extent to which employers/practitioners influence the development and delivery of the curriculum. In any case, the important issue at this point is the needed contact between theory and practice, wherever and whenever it takes place.

People Involved

The third basic pillar in the Framework consists of the **people** involved in the planning and conduct of the programme. It is related to all the agents directly involved in WBL: students, company tutors and academic staff; all the human resources. They are who ultimately make the learning and the integration possible (Zabalza, 2011). The main difference with a traditional programme is the inclusion of strong relationships with people outside the HEI institution. For example, one of the Austrian cases mentioned "The integration of work based learning into the curriculum is not the sole responsibility of the development team(…). Members of the development teams are also invited to contact members of the study programme overarching expert teams.

Students are the reason why the WBL programme exists. The success of the whole programme depends on how the programme is able to engage the students with work activities and make them learn about and through work activities (Billet, 2009 p.289). *Tutors and academic staff*, on the other hand, are the facilitators. Students need to be guided by expert practitioners. (Burke et al. 2009, p.30).

After this first approach, we realized that these pillars cannot work separately as the three pillars interact continuously. It is precisely that interaction what makes the difference insofar as it allows a better learning. That is, the quality of this interaction should make the difference between a *practice* and a *good practice* on talking about a WBL programme.

Defining the interactions

Following with the building of a new framework, the second group of elements required must be specifically related to the learning opportunities provision and how they have been considered in all the organizational stages of the development cycle. All these elements are reported in the literature about WBL, but they never have been put together in the same framework. They appeared on putting the student's learning opportunities in the centre of the initial framework and rereading the cases under that scope. As a result, we saw that none of the basic pillars work alone but, combining between them. That is, we are dealing here with the interaction between the basic pillars; (see Figure 3). As can be understood from the Figure, learning is at its highest when maximizing the intersections, thus, in order to build a good WBL programme we have to pay special attention to them. Here is where we can really distinguish the good practices as balancing the pillars increases the programme quality.

PUT FIGURE 3 ABOUT HERE

The first interaction takes place between the Organizations and the Programme. We have called it **Doctrine**. It has to do with the importance of always remembering the main goal of the programme, to maximize the students' learning opportunities. (Zabalza, 2004). In order to define a good practice we should put balanced emphasis between these two basic pillars. Inability to do so may either lead to too much importance placed the programme plan (Forgetting the Market needs) as usually happens in traditional programmes, or too much emphasis into the organizations' needs (Forgetting the student's needs) as it happens when a company, for example, only collaborates in a programme for "propaganda" aims**.**

Authenticity characterices the interaction between the Programme and People. The idea is to provide students with real work environment, and put them to do real-world work (Smith, 2011, p. 250). Tutors have the key role in ensuring the authenticity of the assessed work (McEwen et al. 2010 p.72). Risks of unbalancing the programme in this interaction again include either putting too much emphasis on the programme details (Forgetting the market and students' needs) or putting too much importance on the people, leading to excessive clientelism or academicism.

Culture is the glue between the Organizations and People. It has to do with the way in with people inside Participating organizations adapt their identity and their way of working to the WBL programme. (Felce, 2010). It also affects the way in with students learn their vocation (Billet, 2009 p. 829). The danger of not balancing these two pillars in order to develop an integrated programme lies, as above, either in too much emphasis on People (clientelism, academicism) or too much emphasis on the Organizations (for example, leading into unnecessary bureaucracy or company-specific propaganda).

Towards a new Framework

Once we have defined all the new elements included in the framework, we will try now to explain how they work in terms of studying good practice. For that, we will follow the natural path of the development cycle (longitudinal methodology, Caïs, 2001). In the process, we will discuss these new elements where they must be especially considered emphasizing the balance moments between pillars as the space for the good practices. We also will include some illustrative examples from our 14 cases.

Thus, starting by the Market need, the Programme planning starts when *Participating organizations* get into contact with each other. Through this contact the *Programme* is designed and it is the product where the understanding of the student background (*Doctrine)* must prevail. The delivery stage follows, and in this stage the academic staff, tutors and students (*People)* are the main resource. The *Authenticity* of experiences designed in the Programme depends on them, and is essential for the success of a quality WBL programme. The last stage of the cycle, Evaluation, is carried out between the People involved, and this stage is the moment for reflection upon how different expectations (*Culture)* have been met in the programme. Participating organizations meet again and considering the voices of the stakeholders they implement the improvements. But, at the same time, this Culture is part of the Participating organizations, so it influences the planning and designing stages.

Market need

As it was stated before, on talking about WBL, Market need should be the trigger. That is, there should be recognized a lack of skills or competencies detected in the labour market. This lack of skills is reported either by potential students (People) who need to enhance their qualifications, or by employers (Participating organizations). It makes sense to identify any HEI effort towards that goal as a good practice. Thus, we have an example of good practice of market need detection from the People pillar: The Production Technology and Organisation Programme was developed due to the identification of a potential market for this type of course from the interactions between members of the acadame and industry already working in the area. The market need can also be detected from the Participating organizations direction. As an example of this, we can mention the Spanish case of Master in innovation, where the Valencian Business Confederation expressed a demand related to the need to create a postgraduate programme to cover the growing need of innovation in the Valencian business sector.

Participating organizations: between the Market need and Programme Planning.

As a consequence of the perceived or observed market needs, the labour market typically requests the HEI to develop an education programme for covering that need. But, when talking about WBL, the HEI cannot develop the solution on its own, and needs an external

organization (employer, intermediary, or social partner representing the interests of a group of employers) as a partner in the planning the learning activities that will cover those needs. Thus, good practices will appear on the establishment and maintenance of such partnership developing a joint point of view from interaction to integration (Whittington & Ferrández-Berrueco, 2007). Some examples are reported from a Business Bachelor study case from Finland: *"Every department has a discussion forum where the department staff meets a selection of company representatives from the region and discusses their needs and future plans. Simultaneously, the employees of the university can ventilate their ideas on course development with the corporate partners"*. Another example comes from Spain (in the field of Industrial engineering) *"At the beginning of the course year, the person in charge of external relations for the programme contacts to the surrounding companies in order to ask about their training and staff needs"*.

Between Organizations and Programme (Doctrine): Designing the programme

Although all the parts involved take some advantage of working together (Whittington & Ferrández-Berrueco, 2007), the programmes must and have to be designed in order to maximize the learning opportunities to students (Zabalza, 2004, Nixon et al. 2006). This is the idea behind the doctrine concept. Nevertheless, it is not always easy to get. Companies have other goals and must perceive a clear advantage or benefit, otherwise they will not be really involved From Germany we have found a very good example in this sense: *"A prerequisite of the employers is that work cannot be neglected; for as much as the employers are interested in training their staff with the ultimate motive to raise loyalty to the company, likewise little they are willing to cut working hours. The most important challenge for the planning was thus to keep the workload manageable for the students and compliant enough to satisfy the recognition standards."* One of the Finnish cases report a solution to this issue finding a mutual benefit from the collaboration: "The students can apply theory to companies' problems, and the university can also help especially SMEs with e.g. market research or product development"

How can learning opportunities be enhanced in the programme design? WBL is the learning for work, at work, and through work (Brennan and Little, 1996 in Burke, 2009 p17). But not everything has to be learnt at work; theory is also important (Brennan &Little, 1996, in Burke, et al. 2009 p.17). It is now time to capture on paper the guidelines agreed in the previous stage. It is also time to get the full integration between the employer and the HEI and translate this integration into the contents and approach of the programme. Being partners on designing the programme, the employer would feel as a partner in also really helping the student. Besides, the course could thus better meet the employers' needs (McEwen et al. 2010, p.74).

An important issue to be taken into account in this stage is described by Billet (2009, p.840). He states that the team should, firstly, Identify and acknowledge the pedagogic potential of practice experiences and consider how these can be engaged and integrated within higher education curricula to maximize students' learning experiences. Related to

this, in one of the Austria cases, (social work) students are expected to complete three practical work-life periods throughout their studies. These practical periods shall take place all in different institutions, but ideally also in three different fields of social work, to enable students to gain a more holistic experience of the different circumstances of real-life social work.

Secondly, the team should include within their programme considerations on the nature of higher education, and how best to prepare for, position, sequence, and identify the most appropriate duration of practice experiences, as well as consider support for learning from those practice experiences on such higher education. Thus, a case from the UK (health care) was especially designed as a flexible programme. The programme needed to be co-created anew each time it was run. It needed to be built in flexibility to accommodate new content as the context demands of each cohort required.

Thirdly, the team must identify what kinds of experiences might best develop, sustain and utilize students' personal epistemologies, including their critical engagement and reflection. In this sense, another UK case, for instance, states *"The programme overall has great flexibility in allowing the students to shape the assignments to support an area that is of particular interest to them"*

Next, we report some important key points identified in the case studies, to be taken into account on designing the programme, using the concept of doctrine as basis. **Alignment of teaching and learning activities** (Smith, 2011) means that the activities in the practice programme must be deliberately designed and connected to the theory and vice-versa. For instance, in one of the Spanish cases, *"integration is evident (…) as most of the practical work which the student has to carry out along the master is integrated into the real role of the student as a professional in the company"*. Or, as in another case from Finland: *"When the company sees that they have a task that suits any of the courses, and after the teacher has accepted the task as suitable for the theory that has is the goal of the course, the company and the Company Clinic coordinator (on behalf of the university) sign an agreement for the task to be solved by the students in the class…"*

The effort required for richer learning is likely to be more prominent among the student's interests than that for just reminiscing theory. No learning activity is likely to be productive unless the learning individuals find meaning in the occupation that they are learning and/or practicing (Billet, 2009, p.831). Furthermore, the students, tutors and academic staff are concerned about the need to integrate the theory learnt in the university with the practice at the workplace (McEwen et al. 2010 p.76). Integrating between work- and course-based-learning in one programme in Austria, there is a "practicum accompanying course". This course is delivered to small student teams of approximately 10-12 students per group. The course is designed to assist students in reflection between practical phases and theoretical knowledge. Another interesting example can be found in the Business programme in Finland: *"the practical problem solving is included into numerous courses, and the description of what kind of practical tasks can be done in these is formulated into "product cards" that the coordinator gives to companies during her*

visits, so they know what (and when during the academic year) kind of tasks they can suggest"

Assessment with integrative learning objectives. The integrative learning outcomes are the key objectives (Smith, 2011, p.259) of WBL, so, assessment ought to be aligned to integrative activities. HEI staff considers that, for students to obtain the most value, they needed to be able to link theory and practice and integrate work undertaken at university with their work in the employer's organization (McEwen et al. 2010 p.74). For instance, in an engineering programme in Austria, *"Module coordinators are responsible for bringing all teachers of the module and all groups together in order to create exams, wherein all knowledge and experience covered by the module can be assessed. These forms of coordination are especially relevant for all teachers, to create a basic understanding of which topics should be covered within all modules and all groups".*

Literature informs about the agreement between the academic and practitioner assessors of assessment standards, so that they reflect the levels of student achievement within the WBL context. These assessors can include external examiners who operate beyond the tripartite student-tutor and HEI staff (McEwen et al. 2010 p.71). Many examples found in the case studies emphasize this point. For instance, in Spain, in the Master in Innovation *"There is an Advisory Board. It is an expert team coming from different areas related to business development. They have to advise the student in the project planning and execution in those areas directly related to their expertise area; to assess regularly the project progress and the assessment of the Master."*

Some suggest that academics may not be familiar with the day-to-day reality of the work context which raises questions about the validity of their assessment (Brennan & Little, 1996 in McEwen et al. 2010 p.72). Typical examples of bad practices known in WBL literature include inadequate guidelines; unclear goals; and lack of detail about standard requirements (Webber, 2005, p.384 in McEwen et al. 2010 p.72). There is also evidence of the need of company tutors' engagement. Where employers are engaged in the assessment process, their role tends to be central in mentoring students on the technical aspects of work-based projects and providing feedback on the performance of the student to the academic staff (Nixon et al, 2006, p.43). HEI staff needs to involve the tutors also in encouraging students to reflect in the workplace. (McEwen et al. 2010, p.69). A good practice related to this is reported from a case in Austria *where "tutors on these reflexive courses are obliged to hold an exam for supervision themselves; the main objective is that these teachers are accompany students during the practical phases and are the main contact point if questions or problems arise. This aspect of quality and personal development is crucial for student's practical integration."* One way to organize learning and evaluation in one are live projects (McEwen et al. 2010 p.76) Examples of this were also found. One programme manager from Spain reports: *"On the placement, student has to develop real projects (one of them is the final project) in order to put into practice the knowledge and fasten the professional skills."*

From the designing to the delivery the programme

Work-based learning especially requires integration between theory and practice. In a WBL sense, any programme is something experienced by learners as an invitation to change (Billet, 2009, p.835). Despite the clear practical scope and focus to workplace in the programme, it is extremely dangerous to forget about the theoretical contents. In such a case the programme becomes a simply reproductive programme closer to a company training section than a HEI programme. A good practice in this sense was reported in Austria: *"Courses of practical exercises are therefore always offered in parallel with traditional lectures, especially in any application field"*.

Delivering the programme: Between Programme content and People (Authenticity)

Work-based learning must take place in real, or at least well reproduced, work situations. Practice settings provide a range of experiences that are authentic in terms of enactment of an occupation in particular work situations (Billet, 2009, p.838). Some key strengths of learning through workplace experiences are (a) Access to authentic work activities; (b) Observation and listening; (c) Access to more experienced co-workers and (d) Practice (Billet, 2009, p.837).

For increasing the effect of this Authenticity some considerations must be taken into account so that the balance between Programme and People can be guaranteed. Firstly, experiences provided, although being real, are not learnt uniformly by students. Learning depends on previous experiences. Consequently it is important to consider both the provision of experiences and individuals' taking up of those experiences (Billet, 2009, p.835). Thus, a UK programme manager reports the following good practice: *"The philosophy of the programme is one of self-directed learning, allowing participants to explore areas of professional interest to develop evidenced based practice and new ways of thinking within the mobility sector"*

Secondly, experiences are also goal-directed (Burke et al, 2009, p.24). This means that practice periods must be developed to enable learning of something that has been previously planned. A Spanish case reports: *"Once a term (that is 5-6 visits along the programme), the academic company tutor goes to the company in order to make an assessment along with the student and the company tutor. All three sign a document where the assessment and new objectives for the student are established."*

Teachers or mentors are the learning mediators (Billet, 2009, p.838). The role of these actors is essential and widely recognized. An example from Germany: *"To ensure the flexibility of the programme in the study course "Prozesstechnik" the students are very individually tutored by their teachers, which are the normal FH or Academy teachers. In this way the students have the possibility for learning in their individual pace and level."* In Austria, *"other learning support is provided through individual coaching for students;*

individual contact between teachers and students is encouraged at any time of the study programme."

Assisting individuals to develop the capacities to realize their vocational ambitions includes the understanding the goals for occupational preparation, as well as how integration of experiences in both academic and practice settings can contribute to generating occupational expertise (Billet, 2009, p.831). Here, a programme manager in Spain says that their *"students have a personal tutor (Senior Advisor) who helps to solve any academic problem apart from supervising the whole work that student is going to carry out along the master as well as supervises the Master Thesis."*

People: a central element in the Delivery and Evaluation of the programme

On delivering a programme, a new element appears. We have called it People. With this general term we mean the students, company/employer tutors and academic staff. This does not mean that these stakeholders are not at all relevant in the previous stages, but we consider their role in the earlier stages is more related to an organization perspective. In the later stages of the programme, as "users", their roles are more evidently those of individuals. Good practices in this pillar are detected when all the programme actors are involved in delivering and evaluation.

Communication is related to the accessibility (Smith, 2011)**.** McEwen et al (2010, p. 79) noted that the three way communication between the academic tutor, students, and the company/employer tutor is particularly important. A good example of this practice was found in Spain: *"After this, the whole cohort (of students), conducted by the pedagogical tutor, negotiate and decide which competencies are going to be worked, how much time is going to be spend on each and the methodology (visits, seminars, etc.) there is a special budget for this. The analysis is individual, but the response is collective. Once the student is allocated in a Company, this company, the HEI and the student define in a tripartite the profile with the basic competencies required at the end of the programme. This profile becomes a learning contract and it is signed by the three parts".*

Assessment is another moment where all the agents must be involved. Thus, it must evidently include the student (Doughty et al, 2006; Brennan & Little, 1996, Raelin, 2008). But the students and tutors need to be supported by HEI, at the minimum with some kind of guidelines (McEwen et al. 2010 p.77) As some forms of assessment may be unfamiliar to individual tutors, their understanding would probably be largely premised on their personal own experiences of assessment. (McEwen et al. 2010 p.75) A Spanish case has solved this issue as follows: *"The company tutor is trained and is continuously supported by the HEI which facilitates the tutoring work and homogenizes objectives and assessment criteria."* In Austria, there was a similar solution: *"Work-life tutors do receive specific documents, which state what students should learn and experience in their practical phases and how the practical phases are integrated into the study programme".*

Between People and Organizations (Culture): Reflection and improvement

Culture is, in our framework, the intersection between People and Participating organizations. Same people behave in different way depending on the context, habits, expectations, and so on. In this way, this intersection to a certain degree determines the specific behavior of an organization. Different cultures will provoke different results in terms of reflection and improvement. For example, McEwen et al. (2010) found that academic staff was concerned that employers would have neither sufficient time nor knowledge about "critical reflection" to encourage it among students. (…) some employers consider that it was the role for the university to develop skills of reflection in students, but with their support (McEwen et al. 2010 p.69). Thus, some practices that try to solve this problem are addressed to train company tutors in the skill of **critical reflection**. Sometimes the critical reflection is carried out mainly from the HEI, as in the following response from Spain: *"once a month students stay at HEI three days and only two in the company. This is the reflection day, and here they talk and share experiences"*.

More related to the beginning of the cycle, we find an element of **Induction and preparation processes** (Smith, 2011). It deals with the cultural preparation of students for the work ahead (in pedagogical and practical sense), dealing with the student allocation, documentation, keeping relationships with industry partners, etc. The following practical examples are reported in Austria: *"The preparatory and debriefing phases are very important for those students who will travel abroad, and are much more than for those who will remain in Austria. It consists of dealing with intercultural differences are issued, as well as main problematic areas in the target regions (typical diseases and their treatment or pre-immunization, how to deal with critical situations, how to handle impressions of total poverty, etc.). De-briefing then means again as well content-wise de-briefing (reflection on what was done in practice) and organizational feedback (possibilities to enhance the information provided before the stay abroad)."* An UK programme reported: *"This module ('Skills and Approaches for Work Based Learning') is designed to help prepare the ground for work-based experiential learning and the accumulation of academic credit for this purpose. It usually follows the Self Review module."*

The Coordinator's role is to oversee de programme, to support Company tutors, and students in a company and to build the culture of "public space" (Harris et al. 2010, p. 553). Again, an example from Spain: *"Academic Coordinator is the person in charge of coordinate the teaching team as well as all the professionals taking part of the programme (tutors in companies, speakers, etc.) He/she also coordinates the Principal Advisor team and the Advisory Board in order to guarantee the normal development, monitoring and assessment of the modules."* **Company tutor's training sessions** facilitate and ensure a better learning experience and provide staff with information and guidelines on academic requirements (Harris et al. 2010, p. 554). This is especially important when *each student in a cohort is undertaking WBL in a different workplace*

(McEwen et al. 2010 p.71, Zabalza, 2011). This is illustrated by a practice in UK: *"The tutor team comprises of experienced practitioners within the sector and every tutor completes additional training to ensure they can offer appropriate academic guidance and support to learners."*

Working the "Public" and "private" space (Harris et al. 2010) is difficult because student can challenge the efficacy or even the appropriateness of the learning experience in a "private space". That is, it is sometimes not seen as appropriate that experienced employees allow students to critique or challenge their culture or practices. An example of this issue from the UK: The fact that the HEI have a sound understanding of workplace learning in terms of the pressures it puts on employees/students and the co-delivery organizations, as well as an understanding of the notion of 'reflexive practice' and how that fits, is key. Such an approach works well in terms of workplace learning since it forces the employee/student to consider what they are learning in the context of their daily activities in the workplace. Companies and Universities have their own learning support structures. **Integrating these structures** may help to alleviate the stress and/or improve the learning process (Smith, 2011, p.252). It is the structural capital, and it has to do with the combination of all the organizational and human resources in order to foster and facilitate learning among all the parties (Felce, 2010). We refer to one of our case examples from Germany, where all learning resources are provided by the FH Aachen or the Academy, the employers usually provide working hours and the technical requirements like plants or laboratories. Another programme reported the following from Austria: *"Some "bridge courses" are offered in subjects with complex theoretical content before the official start of the study programme, and many students (especially those who are older than the average student)) use them to "get into a studying and learning mode" again. (…) Another important form of learning support relates to preparation for exams. If some students approach course lecturers or the study programme leader, and state that they need additional support in preparation for exams, usually supportive courses are offered as consequence to that"*.

Students' Engagement is related to ho*w students engage with and learn through what they are afforded* (Billet, 2009, p.831, Raelin, p.18). There is a need to focus on preparing students as agentic learners as part of their professional preparation (Billet, 2009, p.838). An example from the UK: a **Self Review and Negotiation of Learning** module requires students to engage in a process of personal review and then negotiate an outline learning pathway ('approved studies') based on their personal and professional development needs. This is typically the first module a student will take on their WBIS study route, enabling them to engage in the process of programme planning, typically including the formulation of a claim for the accreditation of prior learning.

The value and benefit of developing a **learning community** is in that students develop their own self-supporting groups. (Harris et al, 2010, p.550). In Austria, this result was obtained in the following way: *"At this point it became clear that learning, or the development of knowledge and know-how during the study programme is provided not only through lectures and traditional teaching methods, but also by the exchange of*

experiences between students. The programme had to be designed to allow space for this kind of interaction, but which uses that exchange of experience to contribute to the learning of the whole student group".

Conclusions

Higher education institutions should, in order to better match the needs of changing society, weave in their education programmes also the view of the workplaces. Using as starting point the programme development cycle for work-based learning (WBL) programmes, the aim of this paper was to build a new framework that let us go deeper trying to find the basic elements that enable to find the best practices in order to develop a good WBL programme spotlighting the learning as the main goal. In this article, the Framework was completed with case studies from 14 best-practice work-based learning programmes.

In all the cases reported, university and labour market have been working in partnership. Depending on many contextual factors (tradition, regulations, flexibility, etc.) this partnership was more or less integrated, but in any case, all the cases collected evidenced some elements that highlighted WBL as the main strategy in the curriculum design, delivery and evaluation. These elements were the 3P's, Participating organizations, People involved, and Programme structure. This seems to hold no matter what kind of Higher Education system the WBL experiment is connected to, at least in European scale.

Nevertheless, although these elements were always present, there are evident differences in the cases that show different levels of curriculum integration. So, we can say they were WBL experiences, but what we are not able to decide is which are better in terms of student's learning opportunities (Brennan & Little, 1996, Raelin, 2008) or significance (Garnett, 2005). In other words, how to distinguish a "practice" from a "good practice" in WBLIC?

Our proposal to answer that question is based on the balance of the common principles, as an unbalance treatment would bring out other goals apart from provide the best learning opportunities.

While it is important to have a standard process to follow for good programme planning and conduct, it is of equal importance to strike a balance between both internal (HEI) and external (employer) organizations, the students, teachers and tutors, and the programme theoretical and practice-based content. Thus, the framework is completed with the mechanisms that bridge the gaps between these "3 Ps". These mechanisms are the differences in the Culture, the Authenticity of the programme activities, and the Doctrine that programmes have to be designed in order to maximize the learning opportunities to students. Although they are already reported in the literature and there is clear evidence of their value in the students' learning, they never have been placed together in a framework. This new framework tries to agglutinate them as a way to count on an instrument that allows decision makers to know which are the best strategies (best

practices) to use in order to design a programme based on WBL under the Garnett's (2005) perspective.

In spite the different educational systems and contextual differences among the countries involved, there is among the practices reported ample evidence that all the elements pointed out in this article are indeed critical and they appear in all the cases reported. That does not mean that all the practices are fully interchangeable among countries. For example, some organizational decisions cannot be made in all the cases, as regulations do not allow their application. But many other are, above all related to pedagogical decisions. So the next steps will carry us to discuss in different contexts what is and what is not applicable.

Related to the limitations of this research, the cases are all European, and it is possible they are culturally biased. They are also selected by a few individuals nationally, which may bring another bias. We have, however, attempted to cover at least to some degree the most important Higher Education system ideal-types of Europe; the British WBL tradition, the *Fachhochschule* system, the Southern-European traditional Universities, and the Post-Communist systems. Our coverage in these is naturally a narrow selection, but case studies are a good way in bringing forth new theories or frameworks, while they cannot bring statistically significant conclusive evidence on these theories. Thus, this report must be seen as a proposal, rather than a definite statement, on what makes a good work-based learning programme in Universities. Therefore, despite our pride in these results, we aim to continue the research on a bigger sample and a more decisive research approach.

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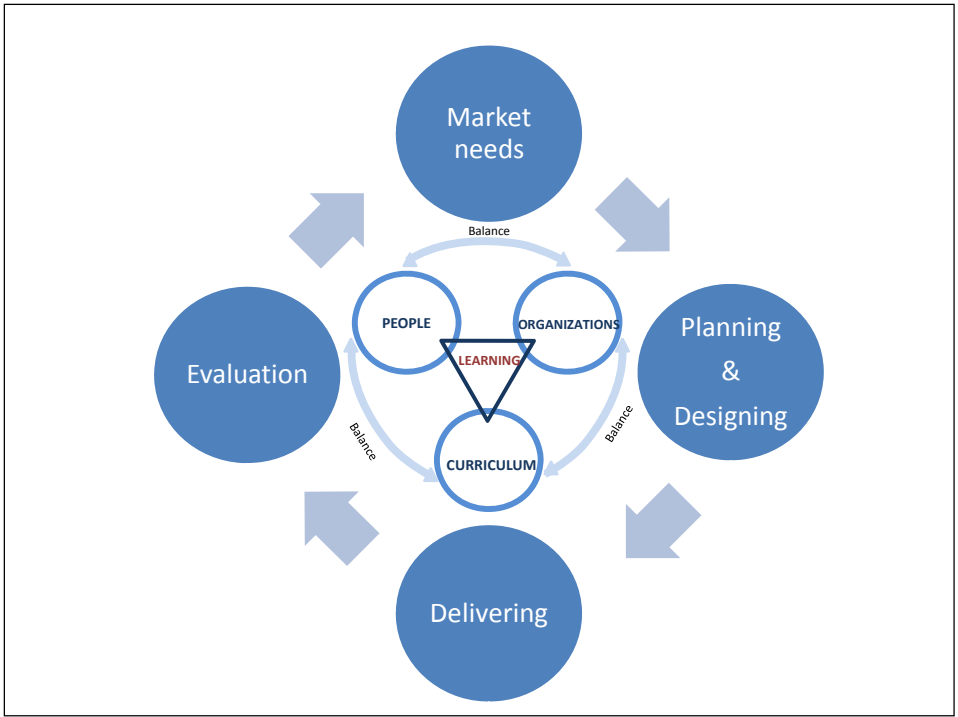
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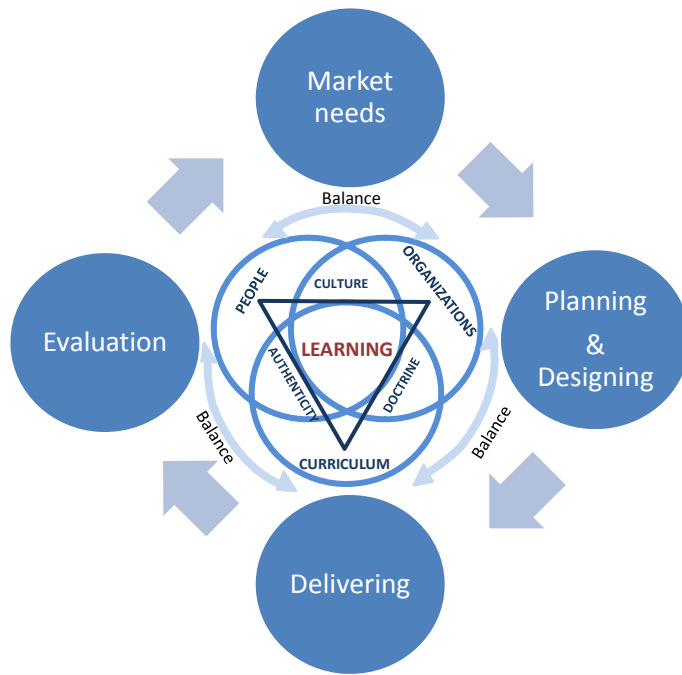
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Figure 1: Conceptual Framework: Developing a WBL Programme

Figure 2: Conceptual Framework and the Basic Pillars

Figure 3. Conceptual Framework, Basic Pillars and Intersections between them