

Working Paper - Series 2:

Principles of Best Practice for the Inclusion of Work Experience in the Curricula of Further Education and Training Programmes

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Abstract

This working paper presents a review of the literature on work-integrated learning and proposes key best practice principles in this area for the future. The main focus of the paper is on work experience as it relates to the Post Leaving Certificate Programme (PLC) at Levels 5 and 6 of the National Framework of Qualifications (NFQ). It is presented in the context of the ever evolving world of work and the vision for further education and training outlined in the SOLAS FET Strategy 2020-2024. The paper outlines the rationale for work experience and proposes an innovative model where it is embedded in the curriculum rather than as a separate entity in itself. This model emphasises the importance of an integrated learning approach between the practical, the theoretical and the cognitive aspects of a programme. The model also places significance on the nature of the relationship between the college and the employer. The paper recognises some of the key challenges involved in work placements and makes recommendations based on the research undertaken. It concludes by advocating for work experience to be an integral part of the development of the new Level 5 and Level 6 programmes and flags an opportunity which now exists both for the FET sector and employers to move to another level of collaboration and excellence in terms of learning at college and in the workplace.

Key Words

Programmes, work-integrated learning, work experience, informal learning, formal learning, models of work-integrated learning, pedagogy.

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1 Aim and Purpose

A key goal of an educational institution is to have a range high quality programmes available to its learners delivered in an innovative teaching and learning environment – an environment which will foster their learning and enable them to flourish in the unscripted world of the 21st century. The national FET strategy, Future FET: Transforming Learning 2020-2024 (SOLAS, 2020), proposes that a new Level 5 and 6 programme be developed to replace the existing confusing array of vocationally focused programmes in FET (Further Education and Training). These programmes include apprenticeships, traineeships and PLC among others delivered in training centres and colleges of further education and training. The strategy suggests that the re-design of Level 5 and 6 should include a substantial work placement element of high quality. It recommends that it should be at least 30% of a programme and should be reflective of industry requirements and changing patterns of work. Further, the recently released sectoral report, Quality Assurance of Further Education and Training in the ETB sector (March, 2023) highlights concerns in relation to the quality assurance of the work experience element of these programmes:

The quality assurance of work experience (or work placements) is not well developed. It is not clear whether the quality of work-based learning is improving over time, whether learner experiences match the learning outcomes of their programmes, and whether learner competences match the needs of employers. (p.15)

The specific focus of this working paper is to determine and outline key principles of best practice in quality work placements, its integration into the curriculum and the role it can play in improving the overall quality of programmes at levels 5 and 6 of the National Framework of Qualifications (NFQ). It is one of a series of working papers, which examines key elements of this proposed new programme development at levels 5 and 6 in further

education and training and it is hoped that the papers will make a positive contribution to this process.

2 Methodology and Definition

This work was carried out in the context of the future skills needs and the world of work and the role of work placements can play in supporting learners and workers throughout their lives. The paper is primarily empirically descriptive, based on the experience of the author in education along with a comprehensive literature review and engagement with various stakeholders. The literature review included peer-reviewed academic literature, grey literature such as government and industry reports and conference proceedings.

Work placements have been defined in a number of ways, some more expansive than others. All definitions, however, include the key notion that work placements involve 'gaining experience on the job' and are now a recognised part of many further and higher education programmes. Coco (2000) suggested that work placements are a 'planned transition from the classroom to the job, and are a natural bridge between college and the work world'. In England, the Department for Education and Skills provides a useful definition of work placement:

A planned period of work-based learning or experience, where the learning outcomes are part of a course or programme of study. This is usually provided outside the institution at which the learner is enrolled. Work placements may be part of a sandwich course, a short placement, a work taster, temporary work or a period of supported employment as part of vocational training. (DfES, 2002: 2).

For the purposes of this paper, I use the term work placement and work experience interchangeably. I also use the more recent term 'work-integrated learning' (WIL) which again refers to work experience/work placement but is more of an umbrella term. Cooper, Orrell and Bowden (2010) explain WIL as being those parts of a course of study, which involve an experience undertaken within a practice setting. Patrick, Peach and Pocknee (2008) define work-integrated learning as an

'umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum'.

WIL experiences are

- authentically engaged with practices and experiences of the workplace;
- located within an intentional discipline-centred curriculum, and

- a focus towards graduate learning outcomes and career pathways.

(Ferns et al., 2014)

While these definitions differ in the location of learning, they all encompass a range of activities that integrate learning and practice. While work experience has long been associated with various types of apprenticeships and traineeships, the main focus of this paper is on work experience as it relates to the Post Leaving Certificate Programme (PLC) at Levels 5 and 6 in Colleges of Further Education and Training.

3 Introduction and Context

It was in the White Paper ‘Charting our Education Future’ (1995) that the term Further Education was first used in an Irish government policy document. It endorsed the role and nature of the PLC programme and emphasised the three mandatory components of the courses – technical knowledge, personal development as well as work placement. (Looney, 2014). The importance placed on preparing PLC learners to enter the workplace can be traced back to the formation of the NCVA¹ level 2 awards, which was retained by FETAC² and is now under QQI’s remit (Mulvey, 2019). The original NCVA work placement module remains remarkably similar from its initial conception to the programme delivered currently, and it continues to function as a core mandatory module in the QQI level 5 awards. (Keane, 2021).

In 2017, SOLAS commissioned a review of core programmes such as PLC, VTOS and Youthreach. A key finding of the PLC programme evaluation was the need to significantly improve its work placement element (McGuinness et al., 2018). Furthermore, the FET Strategy (SOLAS, 2020) highlights the importance of work placements in programmes and sets a challenging strategic objective of 30% of the course to be work-based or practice-based. The current requirement of a PLC programme at Levels 5 and 6 is that a minimum of 60 hours work placement be completed. The Work Experience module is a mandatory element of the programme and is allotted 15 of the 120 credits of a full programme. This equates to 12.5% of the programme and is substantially lower than the 30% advocated in the FET Strategy.

In most cases, learners acquire work experience by approaching the employer, and the employer may or may not volunteer to give work placement to the learner. It can be difficult to secure an appropriate work placement despite the support of the teachers and

¹ National Council for Education Awards

² Further Education and Training Awards Council

management of Colleges of FET. The module descriptor recognises that some vocational areas require additional work placement time. It is also noted that there is another module in this area, namely, Work Practice, which stipulates a work placement element of a minimum of 2 months/240 hours in the academic year. However, due mainly to logistical and timetabling challenges, this module is only used in a small number of FET courses.

In general, feedback from colleges suggests that the quality of the work placement could be substantially improved if it was more structured, supervised and better resourced. Most learners are not visited by their tutors during the period of work placement and the quantity of the experience is normally, on average, only about two weeks. The length of the academic college year is restrictive at 166 day (equating to the post-primary system) which leaves minimum time for work placement and its supervision. Unfortunately, structured, formative feedback from the employer only occurs in a small number of cases. Ultimately, this does raise questions about the relevance and quality of the work placement currently being offered.

An exception to the above general picture, is the new Early Learning and Care programme. The existing CAS³ award in this area had become out-of-date and needed to be completely reviewed and revised. This new programme was developed using the QQI professional award type descriptor. Significantly, it includes a professional practice placement of 150 hours, which requires a placement monitor role, a policy, procedures, code of practice and a formal placement agreement. This programme is up and running for about 2 years now and has currently undergone a review. The lessons learnt from the roll out of this new programme may well be relevant for FET programme development generally.

4 Rationale for Work-integrated Learning

On-the-job training has a long history. A well-known example is the medieval guild system through which newcomers were socialized into the craft. Under the supervision of a master, an apprentice first achieved the status of a journeyman and later was able to become a master himself. In many countries the guild system was replaced by college-based vocational education systems, although practical training periods were still retained as an important part of most vocational and higher education degrees (Tynjälä, 2008). From the late nineteenth and early twentieth century, John Dewey, the educational reformer, believed that life and learning should be firmly integrated. He asserted that:

³ Common Awards System

The inclination to learn from life itself and to make the conditions of life such that all will learn in the process of living is the finest product of schooling (Dewey, 1916).

Dewey's ideas of experiential learning offer a firm basis for the value of learning through work placement. (Sheridan, Linehan, 2013). Work-integrated learning is considered instrumental to graduate job-readiness by building learner confidence in their workplace capabilities, providing learners with a better understanding of the nature and standard of industry-required skills and a better appreciation of the world of work (Jackson, 2015). Work-integrated learning also fosters partnership between education and industry, essential for designing a curriculum, which is responsive to the needs of both the community and industry (Smith et al., 2016).

While the concept of using work experience to provide learners with the opportunity to build resilience and face real world challenges is certainly not new, the urgency of learning for an unknown future is increasing, due to rapid technological advancements and innovations that are driving the global economy (Long, Meglich, 2013). Research shows that technological change is one of seven major forces influencing the future of skills and work, alongside the environment, urbanisation, growing inequality, political uncertainty, globalisation, and demographic change (Valentine et al., 2021). These changes have challenged not only educational institutions but also work organisations themselves to develop new ways of ensuring that the level of competence of the workforce meets these new challenges.

Transversal competences related to the capacity individuals have to communicate, take initiative, work in a team or solve problems and are among the requirements that the new organisation of work demands (Bañeres, Conesa 2017). Ireland's National Skills Strategy 2025 identifies technology and improved digital skills as a basic core competence, but it also recognises how transversal skills will 'underpin Ireland's use of its talent offering as a global differentiator' (Maunsell, 2023). Brown and Ahmed's paper (2009) reports on an interesting study of the impact of work placement on these transferable skills. The study was conducted in three engineering departments at Loughborough University. They found that work placements have a positive influence on the development of transferable skills and in academic performance in the eyes of learners' tutors and coaches. There was strong agreement between all three stakeholders regarding the impact of work placement in developing the learner's transferable skills - all regard work placement as the most valuable way of developing these soft skills.

Here in Ireland, the Higher Education Authority (HEA) views work placements as one of the mechanisms for initiating quality partnerships between higher education and industry. Since the initial research in 2010 on work placement benefits for the learners on the BA

Visual Merchandising and Display, a consortium of Higher Education Institutes in Ireland have published a document on Work Placement in Third-Level Programmes. This comprehensive report by the Roadmap for Employment–Academic Partnerships (REAP) draws together perspectives on work placement from the Higher Education Institutes, employers and learners. Meakin (2015) lists the agreed benefits of placement outlined in the report:

- enhancing networking and mutual understanding between Higher Education Institutes and workplaces;
- maintaining curriculum relevance along with opportunities to apply theoretical knowledge;
- integrating employability skills into the curriculum.

The Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) published its vision for a more unified tertiary system in May 2022. Its policy paper, *‘Progressing a Unified Tertiary System for Learning, Skills and Knowledge’* outlines how more extensive pathways between FET and Higher Education will enable learners’ personal growth, the development of talents, and the promotion of lifelong learning. In this context, the Department recognises that pathways and transitions between sectors require further development and expansion. This has resulted in the recent setting up of the National Tertiary Office (NTO), which has begun a process of co-development of programmes between FET and the HEI’s at Levels 5, 6 and beyond in key vocational areas. An opportunity now exists to foster innovation and fully engage in best practice with work placements as an integral part of this new programme development process.

The National Skills Strategy identifies the importance of employer engagement in FET and critically the importance of work placements for learners. It notes the potential shortage of work placements, which has been flagged to the author by a range of education and training providers:

It will be imperative that employers and particularly the SME sector engage in providing work placement opportunities for students which in turn will provide the companies with opportunities to engage with talented individuals and prospective employees and gain exposure to potentially innovative and entrepreneurial ideas. (p.83)

The FET Strategy (SOLAS, 2020) also recognises the importance of work placements referencing the Erasmus Plus option, which is a very successful and unique type of work experience:

The development of consistent and structured work placements will be particularly important in ensuring success, with internship models worthy of further explorations, and mechanisms like Erasmus used to facilitate an international dimension to the placement approach. (p.40)

The Erasmus programme has shown that there is great scope for work placements abroad and for FET Colleges to have internationalisation as a key element of its strategy. Excellent examples of this are evident around the country and there is great potential for further development.

In summary, it is widely accepted by researchers, educators and business leaders alike that work placements provide a unique and valuable learning experience for learners, particularly providing learners with a range of personal experiences which relate to and integrate with their prior academic experiences and encourages the learner to participate and thrive in the ever changing world of work (Meakin, 2010). It is therefore imperative that work placements are a central element of programmes revision and programme co-construction at Levels 5 and 6 of the NFQ.

5 Characteristics of Work-integrated Learning

The literature demonstrates two key principles of work-integrated learning: first, work-integrated learning is shaped by and embedded in situated work contexts; second, social interaction is a critical part of work-integrated learning (Lave and Wenger 1991). Looking at the first principle, work-integrated learning cannot be disassociated from the context in which it occurs. Consequently, learners' learning and participation is embedded in local work contexts and dependent on participation of the learner in work-related activities (Gowlland, 2014). The second principle stresses that social interactions are fundamental to work-integrated learning. Through social engagement in the workplace, learners gradually become members of communities of practice. Social interaction with experienced workers creates a potential for learning that would not exist without these interactions (Vygotsky 1986). Therefore, I define pedagogic practices in the context of work-integrated learning as being shaped by social invitations of experienced colleagues to participate, observe and listen in everyday work activities (Ceelen et al., 2021).

Mulder (2015) advocates a competency-based approach to education, which draws upon the occupational context and the social interaction within it. A key goal of competence-based education is to prepare future professionals so that they will be able to contribute to the advancement of their sector. Moreover, competence-based educational programmes

aim to contribute to the learners' (professional) identity development (Wesselink et al., 2010). Finally, learners who finish their educational programs should be better prepared not only for working in professional practice but also for participating in society as a whole (Jørgensen et al., 2002).

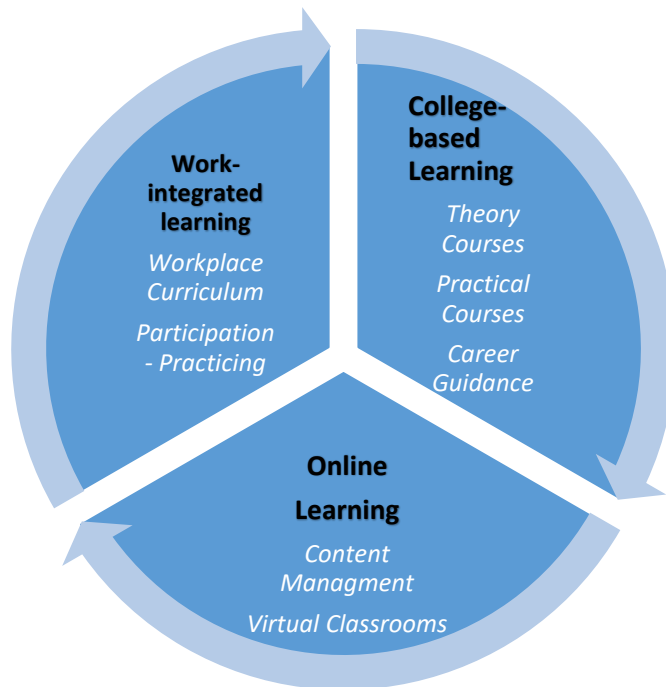
According to UNESCO (2019), work-integrated learning should be linked with institution-based learning, where the understanding of scientific, technological, social, cultural, environmental, economic and other aspects of societies could deepen, in addition to developing competencies of individuals to prepare them for occupational fields. It is also worth noting that some studies (for example, Tynjälä, Virtanen, 2005) show that not all learning in the workplace results in desirable outcomes. Tynjälä and Virtanen asked learners what they had learnt during their work experience. The learners reported that most of all they had learned independence and vocational skills, but also that they had learned some negative things such as bad practices and how to avoid their duties. Thus, educators need to be aware that learning does not always involve desirable outcomes but may also strengthen existing negative features of the workplace.

While the organisation of work sets the context and conditions for learning, it continues to be the reciprocal interaction between the individual and the workplace that determines learning. Billett (2004) argues that the nature of individuals' participation in work-integrated learning depends both on the extent to which the workplace provides opportunities for such participation and on the extent to which individuals choose to avail themselves of those opportunities. Thus, while the workplace creates the possibilities, it is how individuals participate and interact in their workplaces that is central to their learning. It is therefore important to acknowledge workplaces as sites for learning. However, it is only one site of learning and generally a good one when highly specific tasks and habituation to work need to be taught (Buchanan et al., 2020). Workplaces are also important places in which specific domains of expertise are developed – but, such expertise, acquired by active participation in working communities, is built on bodies of conceptual knowledge acquired in education institutions as well as practice in occupational fields (Guile, Unwin, 2019).

Mulder (2022) and O'Sullivan (2020) state that further education and training occurs in three principal venues: the college, the workplace and online (see Figure 1).

Figure 1

Aligning Learning Places in FET



Source: M. Mulder, 2022

In this model, theoretical knowledge and skills are developed primarily in the classroom and online, while the workplace is where they are given an occupational context and relevance. O’Sullivan (2020), drawing on the research of Mulder and Winderton (2017) on a competency-based approach to skill formation, argues that it will be the integration of these three venues of learning, in a ‘situated professionalism approach’, which will be key to the quality of the new programmes at Levels 5 and 6 in FET. This approach would be further enhanced by an integrated, holistic approach to assessment across these programmes.

There is no doubt, that during the COVID-19 emergency, the online venue took hold in FET and, in this post-pandemic era, it is regarded now as a real and viable place for learning. The so-called ‘new normal’ has revealed the need to boost online learning and the use of new technologies as tools to acquire the skills to face the current needs of organisations that are adapting at breakneck pace to hybrid work environments, online sales, remote customer service, etc. In this new normal, employees must possess higher skills in

organisation, leadership, adaptability, autonomy, teamwork and communication, among others (Lopez and Lopez, 2020). In an ideal situation, these three places of integrated learning will complement each other, create synergy, raise standards and achieve the skills and competencies required to enable learners to thrive in an ever changing world of work.

6 Models of Work-integrated Learning

Work experience for learners has been organised in different ways in different educational systems over the years. Guile and Griffiths (2001) analysed the forms of organising VET (Vocational Education and Training) in Europe and especially how learners' work experience has been used in VET systems. These models reflect different periods of economic and technological development and changing educational ideas about the process of learning. They are briefly described below.

The traditional model

Learners are simply "launched" into the workplace, and it is their task to adjust to the requirements of workplace. In this model, it is assumed that learning occurs automatically, and thus there is no need for any special guidance or help. Instead, workplace experience is managed through traditional supervision. There is only minimal cooperation between vocational institutes and the workplace, and there is a sharp division between theory and practice.

The experiential model

In this model, and according to the experiential learning theories (Kolb, 1984), reflection on the work experience has an important role in the learning process. The social development of learners is also emphasised. Therefore, it is necessary to develop pedagogical practices that support reflection and conceptualisation. Consequently, cooperation between colleges and the workplace is essential.

The generic model

In this model, work experience is seen as an opportunity for developing and assessing the generic skills needed in working life. Thus, the emphasis is on learning outcomes. Learners collect material for their personal portfolios to show their development in acquiring key skills. They also take part in assessing their skills. The teacher's role is to support this process. The relationship between theory and practice remains unclear.

The work process model

Learners should develop a holistic understanding of the work process. The intention is that learners learn skills that can help them work in different work environments. The model requires integration of theory and practice, and hence collaboration between colleges and the workplace is important.

The connective model

On the basis of socio-cultural learning theories, the connective model is presented here as an ideal way to organise work-integrated learning for learners. The core of this model is the 'reflexive' connection between formal and informal learning, and between conceptual development and developing capacity to work in different contexts. The idea is to resituate learning in a way that requires integration of conceptual learning and work experience. The aim is to develop polycontextual skills, which help students towards 'boundary crossing', that is, the ability to work in changing and new contexts. This requires close cooperation between colleges and workplaces, and therefore the central role of the education and training provider is to develop partnerships with workplaces to create environments for learning. One difference between the work process model and the connective model is that in the former, it is assumed that work experience itself promotes work process knowledge, whereas the connective model emphasises that it needs to be mediated. This can be done, for example, by introducing concepts and subject knowledge, which can take place at the workplace (Virtanen, Tynjälä 2008).

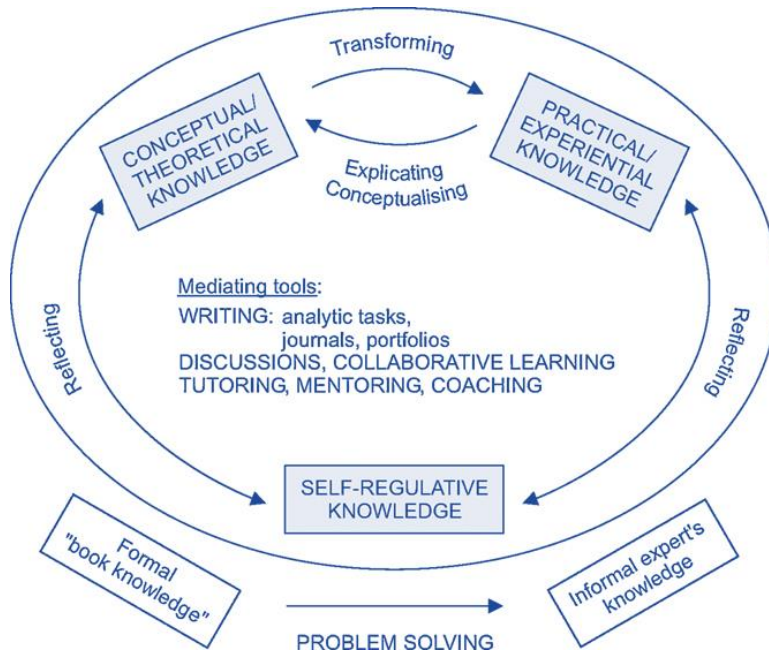
According to Guile and Griffiths, all these models, except for the ideal connective model, can be recognised in European VET systems in one way or another. However, the classification is more analytical than descriptive: no specific work experience programme fits neatly into any one model and some programmes may contain elements of more than one model. The fifth connective model represents a new approach displaying innovatory features, which are relevant to future approaches to effective work-integrated learning and provides a basis for further exploration.

7 Pedagogic Practices in Work-integrated Learning

How, then, can this connective model be implemented in practice? Tynjälä (2006) suggest that this is possible through the pedagogical approach he calls *integrative pedagogics* (Tynjälä, 2005, 2007). This is a not a specific method of teaching but rather a principle, which states that in any learning situation key elements of expertise – that is,

theory, practice and self-regulation – should be integrated. Incorporating work-integrated learning in education requires the development of pedagogical models, which take into account both the situated nature of learning and generic knowledge on the development of expertise. Figure 2 presents Tynjälä’s pedagogical model.

Figure 2 Integrative components of the development of vocational and professional practice



Source: Tynjälä et al., 2006

Briefly, professional expertise can be described as consisting of three basic elements, which are closely integrated with each other: *theoretical knowledge*, *practical knowledge* and *self-regulative knowledge*. Theoretical knowledge and practical knowledge, located at the top of Figure 2 represent intrinsically very different types of knowledge. Theoretical knowledge is universal, formal and explicit in nature. It can easily be explained, for example, in books and lectures. In contrast, practical knowledge that we gain through practical experiences is case-specific - it is not universal in the way theoretical knowledge is. Practical knowledge is often not so easy to explain; rather it is intuitive, implicit or tacit in nature. The arrows between the boxes labeled theoretical and practical knowledge in Figure 2 illustrate the significance of the interaction between and integration of these different types of knowledge. While traditional education has treated them separately (e.g. theoretical courses and practice periods have been carried

out separately without any connection), modern pedagogical thinking emphasizes the integration of theory and practice (Guile and Unwin, 2019).

Besides theoretical and practical knowledge, the third constituent of expertise is self-regulative knowledge, including metacognitive and reflective skills (e.g. Bereiter, 2002; Bereiter, Scardamalia, 1993). Linking the development of self-regulation with theory and practice is shown at the center of Figure 2. In the process of integrating theory and practice mediating tools are needed. These include, for instance, discussions with a tutor, mentor or a small group, or writing assignments, such as analytic tasks, portfolios and self-assessments. Alternatively, during their work placement learners may write a learning journal (or a blog) to reflect on their work and learning. These kinds of activities allow learners to develop their self-regulatory knowledge in a context provided by the knowledge and problem domain of their future profession. Essentially, they are developing their transversal skills, which are so critical in today's world of work.

In incorporating work-integrated learning into the curriculum, there is a perceived danger that core modules such as communications, mathematics and languages, could be marginalized or sidelined (Tynjälä, 2008). However, one important principle of the connective model is that work-integrated learning is linked not only with the vocational modules of the programme, but with the core modules as well. For example, in a learners' project work, the learner can practice how to take minutes in a project meeting, analyse the communications practice used or write work-related documents in a foreign language.

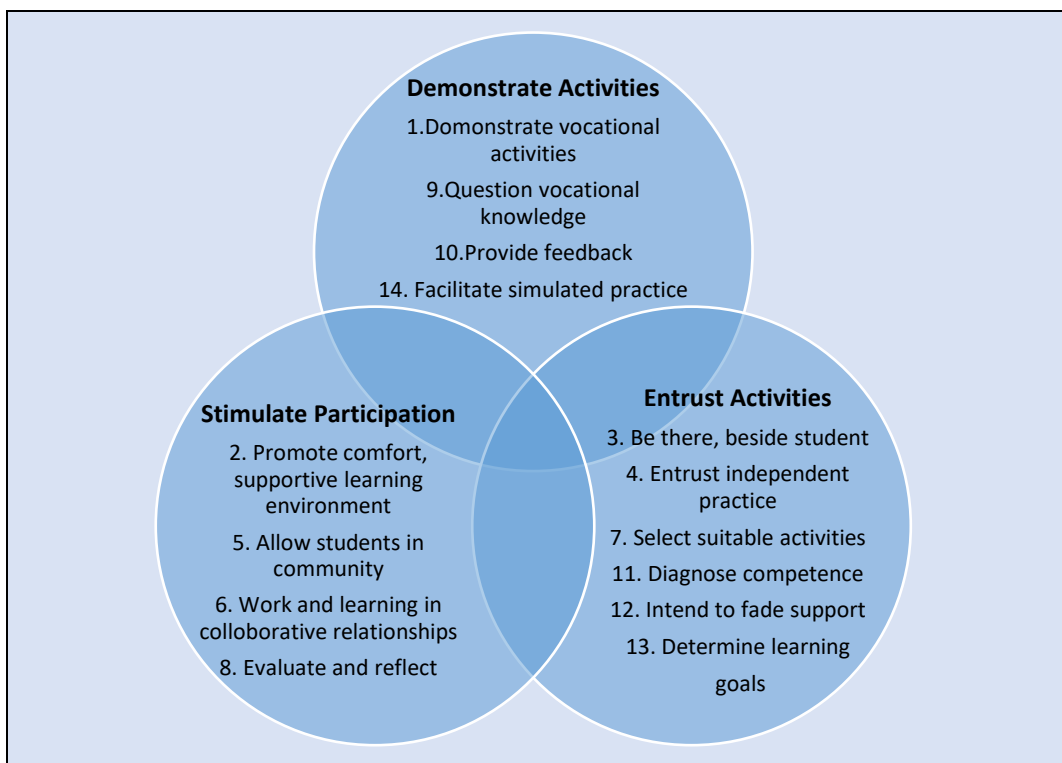
Another important principle of connective work-related learning is that learners are not just sent out into the workplace. They receive coaching and guidance and their learning is facilitated. An ideal is that learners are assigned a tutor from their college and a mentor or workplace trainer from the workplace and that these three partners regularly meet and talk to each other. It is also important that the aims of the work-related learning period are set out beforehand and that these aims derive from the curriculum and connect with theoretical knowledge - thus, work-related learning becomes *intentional learning* (Tynjälä, 2008). It is also very important that work-related learning is planned in collaboration with workplaces. This will enable all three parties to devise shared goals and modes of action and assessment processes.

A key challenge facing work-integrated learning is the development of what may be called workplace pedagogy (see, e.g. Billett, 2002; Ceelen et al., 2020; Lopez and Lopez, 2021). When different forms of work-integrated learning are developed for the FET system, there is a danger that the integration between theory and practice could be lost. Ceelen et al. (2021) conducts a literature review to better understand the practices that

support learners' vocational learning in authentic work practices. Several pedagogic support activities are identified by Ceelen and colleagues, which they contend would enhance the experience for learners. The support activities are provided by what Ceelen and colleagues call 'experienced colleagues,' who can be supervisors, workplace educators, mentors, tutors or coaches. The underlying meanings and activities of these colleagues differ from each other, but they all intend to provide pedagogic support to learners' work-integrated learning.

The support activities identified in the study are illustrated below in Figure 3 below:

Figure 3 Perspectives on supporting learners' vocational learning at work



Source: Ceeleen et al., 2021

Fourteen categories emerged from the study, presenting a diversity of pedagogic activities, including how experienced colleagues are observed and imitated by learners, collaboratively work and learn together with learners, and select suitable activities for learners to participate in. The findings illustrate that modelling is a primary job of supervisors. They give instructions, facilitate simulations, ask questions and provide feedback. Furthermore, learners observe and imitate how experienced colleagues

communicate, collaborate, solve problems, and handle stress. Supervisors' demonstrations of vocational practices are embedded in learners' every day working life.

In line with previous research, results of the literature review indicate that strong and trusting relationships supports learners' increasing level of vocational participation and a sense of belonging (Rowe, Jackson, and Fleming 2021). Results indicate the process where supervisors gradually fade their support and intend to push learners towards having more responsibilities. The findings suggest good practice, when experienced colleagues stand beside learners to continuously identify and guide their vocational activities and provide immediate feedback and help when needed.

8 Key Challenges of Work-integrated Learning

The literature reviewed above has clearly shown that learning in authentic workplace environments is very important in helping learners to develop their competencies, skills and vocational identity. However, it must be recognized that organising learner on-the-job training is a challenging task. A particular challenge is that it involves partners who may have different views on learning and the aim of learner placements (Tynjälä, 2007). The primary goal of employers is to make a profit, whereas the primary goal of the colleges is to ensure its learners get the best possible experience at the workplace, and fulfills the learning outcomes as prescribed in the curriculum. Partnership, therefore between the college and the employer is an important underlying concept for the development of work-integrated learning at all levels. Research by Boud and Solomon (2001) suggests that there are six key characteristics for successful education-industry partnerships summarised as follows in Table 1:

Table 1 **Characteristics of successful education-industry partnerships**

1	The partnership between an external organisation and an educational institution is specifically established to foster learning. This organisation may be in the private, public or community sector of the economy;
2	learners must be in a contractual arrangement with the external organisation. A learning plan has to be created for each learner;
3	the programme should derive from the needs of the workplace and the needs of the learner rather than being controlled or framed by the disciplinary or professional curriculum: <i>work is the curriculum</i> ;

4	learners should engage in a process for recognition of competencies prior to undertaking the programme of study;
5	a significant element of the learning should be through projects undertaken in the workplace;
6	the assessment of the learning outcomes should be against a trans-disciplinary framework. This is a framework of standards and levels and is a key element in the educational quality assurance process.

Source: *Boud and Solomon (2001)*

While working in partnership is not considered easy, it is important that there is an opportunity for trust to develop and most researchers point to the importance of time in allowing the relationship to build and the potential benefits to accrue (Sheridan, Lenihan, 2013).

Another key challenge in the organization of work placements is the length of time given to work experience. As mentioned in the introduction, the FET Strategy recommends that work placement should consist of at least 30% of the course. However, this is challenging given the current management structures and length of the academic year in colleges. It would have implications for provision, staffing, and ongoing continuous professional development for FET staff. There would also be challenges from an assessment perspective. The need for a paradigm shift in assessment methodology for work-integrated learning would be required as teachers are far more comfortable assessing disciplinary content, for which there are often clearly established norms, than generic skills (Yorke, 2011). Although employers do contribute to assessment in work experience, there are challenges in ensuring standardisation and quality assurance across different industry settings and they are reluctant to progress beyond awarding pass and fail grades (Woolf, Yorke 2010). There may also be an implication for the number of credits given to the work-based element of the learning. In the current level 5 and level 6 awards, the certification requirement under QQI's Common Awards System, used widely on PLC courses, provides only 15 of the 120 credits, 12.5%, for work experience placement. This appears to be out of line with the strategic objective of 'at least 30% work-based' and will require further consideration (O'Sullivan, 2020).

Related to the above challenges is the reported shortage of suitable employers to take part in the work experience programme and provide adequate and quality work experience for the learner (National Skills Strategy 2025). Whilst acknowledging that thousands of learners from all levels of education go on work experience or work

placements with employers across all sector of the economy, there is a need now, more than ever, for a more structured, systemised approach to this engagement between education institutions and employers.

It is useful, at this stage, to briefly examine what higher education institutions are doing with regard to the acquisition of suitable work placements and their duration. Tertiary institutions are, in fact, experimenting with new models of work experience. Developments in technology have enabled more rapid connections, both nationally and internationally, which has broadened opportunities for learners to liaise with fellow learners, supervisors and employers globally (Beeson, 2016). As governments provide funding to stimulate start-up businesses and business incubators, universities are capitalizing on this investment by looking for associated placements or project opportunities. Universities are also reaching out to more diverse partners e.g., community groups and small and medium enterprises (Gribble, 2016). Additionally, in response to industry feedback, universities are becoming more flexible with the duration and timing of placements to accommodate the needs of an already stretched industry sector (Kay et al., 2019). Innovative work experience practices are emerging, such as micro-placements, online projects or placements, hackathons/competitions and events, incubators/start-ups and consulting. It might now be time for the FET sector to look at these types of alternative work-integrated activities in addition to the more traditional approach.

In 2013, the Department of Education in the UK commissioned the National Foundation for Educational Research (NFER) to conduct an evaluation of work placement trials. The trials (carried out by Sims and his colleagues) aimed to test different work placement models for 16 to 19 year olds. The main conclusion from this evaluation of the Work Placement Trials was that they supported the development of a more systematic and structured approach to the planning and delivery of work placements. Another key outcome of the trials was the investment in a work placement coordinator. This was key to making work placement a more centrally managed and coordinated college-wide process.

This paper has emphasized the social nature of work-integrated learning. It is important therefore that learners gain access to different communities of practice. It follows that learner supervision and guidance in the workplace is also significant. However, the people who are in charge of supporting learners' learning at the workplace more than likely will not have pedagogical training themselves. Therefore, a further challenge facing colleges and teachers is to train and coach workplace trainers.

In addition to the formal training of trainers, it is important that teachers and workplace

trainers are in continuing contact with each other. They have a shared responsibility for supporting the learning taking place and therefore they need to have a shared understanding of the goals of learning, ways of supporting learning (e.g. discussions, learning tasks through which theory and practice are integrated) and assessment of learning. It follows that the role and expertise of the vocational teacher will have to go through a fundamental transformation. One of the key enabling themes in the FET Strategy (2020) is staffing, capabilities and structures. Emerging work experience models will require staff capabilities additional to those required by traditional models (Kay et al., 2019). For example, staff require capacity building in using technology for online work experience models and familiarity with current industry practices. Co-designing work experience activities will require a mindset beyond the focus of more traditional models of work placement to a more involved and complex interaction. The teachers in the FET sector have always been flexible, innovative and adaptable in their approach over the years and with good leadership and support, there is no doubt but that they will respond positively to the challenge ahead.

9 Conclusion and Recommendations

In this paper I have examined the nature of work-integrated learning. A rationale for the use of work experience in programmes was outlined as well as for its integration into the curriculum. Rapid and continuous change in society in general and in working life in particular have made lifelong learning and learning in the workplace a necessity for both organisations and individuals. Whilst acknowledging the challenges of organising work placements and work-integrated learning, the connective model is presented in this paper as an ideal way to approach the task. The core of this model is the 'reflexive' connection between formal and informal learning, and between conceptual development and developing capacity to work in different contexts. The idea is to resituate learning in a way that requires integration of conceptual learning and work experience. The aim is to develop polycontextual skills, which help learners towards 'boundary crossing', that is, the ability to work in changing and new contexts. This requires close cooperation between colleges and workplaces, and therefore the central role of the education and training provider is to develop partnerships with workplaces to create environments for learning. Research conducted by Boud and Solomon (2001) identified six key characteristics for successful partnership between education and industry and these were outlined.

One of the main challenges which presented during this research is the shortage of suitable work placements available for learners. Of course the pandemic did not help the situation

but this dearth existed before then. The challenge always existed for employers to provide the resources and time in particular for learners on work placements. Feedback from industry suggests that it is often inundated with various requests from the different levels of education on a yearly basis. Another related challenge in the organization of work placements is the length of time given to work placement. As referred to earlier, the National FET Strategy recommends that work placement should consist of at least 30% of the course. There is no doubt that a realistic duration of work experience contributes to increasing levels of interaction and integration, and can have a positive impact on the overall effectiveness of work placement. However, rather than having an overall arbitrary level of work experience such as 30%, it might be more appropriate for the nature of the programme itself to dictate how much of that programme is work based. If the programme aim is mainly for progression to higher education and its focus is on school leavers, a work experience approach of a few weeks may be sufficient. On the other hand, if the programme is vocational in nature and purpose, the volume of work experience should be more than a few weeks and should be built into the pedagogy or teaching fabric rather than a discreet part of the course. Further, in light of the innovative work experience practices emerging (mentioned earlier), a work experience element may very well add up to 30% but it would not necessarily all need to be at the workplace – college space and the online space should also be considered. It could be made up of a combination of work placement, online projects, consulting and hackathons (events) for example.

It may be appropriate, at this time, for the ETB sector to have a fresh strategic dialogue with employers in order to plan how industry can contribute to a more flexible, systemized work placement model. Leaving it solely to college management, teachers and learners is no longer sustainable. A national dialogue, underpinned by research, with input from employer bodies, SOLAS and ETBI, might be a good starting point to develop a best-practice approach. The Regional Skills Fora could also play an important role in this process as indeed could the National Tertiary Office. The REAP project referred to earlier could also inform this conversation and provide samples of good practice from the higher education sector. The REAP team developed a set of guidelines to support improved work placement processes, providing a framework for good practice which addresses many of the issues and concerns raised in this paper. The framework addresses the role of employers, the education institution and the learner (before, during and after the placement process). It is worth noting also that in Australia, there is a national work-integrated strategy in place for the university education⁴. Is a national approach/strategy for work experience needed for the FET sector? Is there an opportunity here to transform FET and finally realise its ambitions?

⁴ National Strategy on Work Integrated Learning in University Education (2015)

The provision of new resources for work placement to colleges would be required in order to meet some of the recommendations outlined here. In particular, the appointment of a workplace coordinator at college level (as opposed to ETB-level) could be key to more a centrally managed and coordinated college-wide process. This appointment would give the additional capacity badly required to manage the cross-college procurement and organisation of work placements. The coordinator would have four significant roles: manage the contact with employers to secure placements, work with heads of departments and programme teams to help integrate work placement with the curriculum, coordinate the preparation of learners for going on placements and play a key role in visiting learners on placement. (It must be noted that most higher education institutions have a section dedicated to work placements with a significant number of staff supporting the process).

On the employer side, there is a need for workplace trainers with the specific responsibility for overseeing work placements on the ground. The workplace trainers will need pedagogical training themselves. There are various options here. The ETBs with the support of SOLAS would be well capable of providing this training. Indeed, some ETBs already provide courses in the area of mentorship. Alternatively, as an incentive to employers to engage, it could be made available through e-College for free. The quality and relevance of the work experience would be hugely enhanced with such trainers available to the learners and colleges. Equally, as mentioned earlier, professional development for the FET teachers is necessary to maintain vocational currency with the world of work.

The erosion of job security, globalisation of competition and change in the economic climate have led to changing career directions and a new emphasis on employability and transferable skills. These changes have challenged not only educational institutions but also work organisations themselves to develop new ways of ensuring that the level of competence of the workforce meets these new standards. Thus, continuous learning has become important both for individuals and for organisations competing in international markets. A new more structured work experience strategy would therefore not only be of benefit to the learner but to the workforce of the organisation itself. The development of the workplace as a learning environment both for employees and learners would create new opportunities for the continuous development of competence.

The FET sector is now embarking on a comprehensive review and re-design of its programmes at levels 5 and 6. It has been argued here that work placements should be an integral part of this development process and the paper identifies key best practice principles. An opportunity exists to realise the ambitions of the further education and training sector and continue to strengthen its brand. Whilst acknowledging that there are

some excellent examples of good practice regarding work experience in FET, there is a need for a more strategic, coordinated approach from policy makers, state bodies, colleges and industry. This approach should be based on sound pedagogical principles and FET research has an important role to play here. Leadership and a collaborative design approach from all stakeholders to enable the changes required will be fundamental in developing and establishing best practice in this area.

10 References

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