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The Learn@Work Socrates-Minerva Research Project 2005-2007

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The Learn@Work Socrates-Minerva Research Project 2005–2007

What did it do and what happened with it since?

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Abstract

This article offers a summary of the goals, activities, products and evaluation of the Socrates-Minerva research project 2005–2007 – *Learn@Work*. The partners were four higher education providers: Glasgow-Caledonian University (lead), University of Aalborg, University of Innsbruck, and the Dublin Institute of Technology, with one private partner, ATiT, Brussels. The project aim was to develop and test IT-based materials for induction and support for worker-learners using pilot studies in the partner countries, and the development of usable case studies and theoretical models. This article describes and analyses the project activities which included an initial state-of-the-art report on the use of ICTs in workplaces. The design paradigm is described together with a summary of the particular pilot studies conducted in each country. Particular consideration is given to the Dublin pilots and the design principles applied to the materials developed and tested. Evaluation findings for the Dublin pilots are outlined together with reflections on the sustainable impact of the project outputs two years later. The article ends with tentative recommendations related to enhanced design of e-induction and support together with possibilities for future research in the area of e-support for worker-learners.

Key words: access; e-accompaniers; e-learning; induction; support; sustainability

The Learn@Work Project

Learn@Work was an European Union (EU) research project funded under the Socrates Programme for Education and Culture Minerva strand for open and distance learning (ODL) and for information communications technologies (ICT) in education (see Socrates Programme 2005). The project started in October 2005 and finished in September 2007. The partners in the project were: Glasgow-Caledonian University, Scotland (lead); Alborg University, Denmark; Audio Visual Technologies, Informatics and Telecommunications (ATiT), Belgium; Institute for Future Studies, University of Innsbruck, Austria; Dublin Institute of Technology, Ireland.

The aim of the research project, as outlined in the final proposal document, was as follows:

To enhance the induction and support for learners in the workplace by building on ICT models developed and tested in distance learning and e-learning ... adapted and enhanced for a work-based organisation and learning environment ... models we will explore include the use of online communities and workgroups to reduce the isolation of the individual learner, the development of richer support and ‘scaffolding’ models and techniques to enable on-going interaction after the learning event through the creation of sustainable communities of learners. Learn@Work will establish an expert group to develop a ‘state of the art’ report on current theory and practice. This will inform the design of a common induction resource which will be piloted in partners’ work-based learning programmes. Induction is particularly important, equipping the learner with the social and intellectual capital to successfully integrate and participate in knowledge construction independently and collaboratively. From these evaluated pilots a guide for learners and a guide to good practice for developers will be produced for the wider community. These will be disseminated and discussed via the

Learn@Work online community and a range of workshops culminating in a high-profile Learn@Work conference event.

This text was informed by the assessment comments of the independent experts nominated by the Socrates Technical Assistance Office which identified weaknesses in the pre-proposal document in relation to building on other similar research projects in Europe generally, and in relation to the vagueness of the target groups of worker-learners for the pilots and the eventual, sustainable users of the products of the project in light of the small numbers of industry partners involved. These comments resulted in the inclusion of a state-of-the-art report prefacing the design of the generic resource to be tested in the partner countries.

The independent expert assessment of the final aims quoted above likewise identified the dearth of non-contractual partners as a weakness for sustainability and further development of collaborative relationships. The assessors additionally identified the ‘generic’ nature of the eventual ‘common induction resource’ as possibly problematic when the design of specific scaffolding models would be required for each workplace context. An additional weakness identified was the western-European orientation of the project and the lack of involvement of new EU member states at least as pilot sites for testing the initial resources. While the last point above was not particularly significant as the project unfolded, the previous points in relation to the difficulty of designing an appropriate generic resource for multiple contexts, and the lack of coherence among pilot partners which could inform such a sustainable, generic model, did prove to be real weaknesses in both the process and products of the project. These aspects are dealt with later in relation to the resources and pilot groups used by the different partners, and in relation to the challenge of developing theoretical and conceptual frameworks which would be the basis for the good practice guide for developers after the project ended.

State-of-the-art reports

The expert group which contributed to the state-of-the-art report for the project was drawn from academic staff working on the project in the four higher education institutions (Jaszewski, Reich, Georgsen, Nyvang, Young and Murphy) and the staff of the consultancy partner company ATiT (Binjens and Vanbuel). The title of the report – *State of the Art Work Based Induction Training in Europe: Collaborative Research into Supports for Induction of New Workers using ICTs and Supports for Induction of Worker-Learners to E-Learning* – reflected the complexity of the project's aims and perhaps the tensions in understanding of precisely what the project was trying to achieve. The aim of the report was stated as 'to identify current European good practice in the use of ICT work-based learning ... to determine the "state of the art" with an emphasis on how the holistic interaction of pedagogical, organisational and technical elements to aid student engagement, interaction and long-term learning'.

Defining 'induction' and 'support'?

The exercise of writing the state-of-the-art report exposed the varied definitions partners were attributing both to the term 'learning at work' and to the term 'induction'. A continuum of definitions was required to enable each partner to locate their technology-enhanced pilots comfortably within their normal education and training activities. The process of induction training for new employees using ICTs was at one end of the continuum, developing ICT skills among low-skilled workers was at mid-way, with the development of ICT packages to 'induct' worker-learners into higher education pedagogies and processes was at the other end. As an inclusive, if compromise, definition the text below may indicate the strain after consensus of meaning:

Learn@Work regards induction (that is, the early supported experience of the educational process) as being particularly critical, but recognises that induction may actually extend throughout the programme. Induction may involve new employees, but may also include established members of the workforce who have to acquire new skills due to job change or transfer. Learning in the workplace implies a wide range of learning situations and learner groups, and consideration has to be given to the different social, cultural and material contexts in which online support and development occurs. Learn@Work directly tackles the key issue of providing a framework for the induction and support of work based learning using ICT, allowing institutions to look in confidence to new educational processes which include the delivery, communication and assessment of Work-Based Learning.

(Binjens and Vanbuel 2007: 7)

The report clearly forecast that achieving a common induction model as promised in the project aims would be problematic and that a wide range of contextually appropriate products were likely to emerge thus enhancing rather than limiting the project outputs (Binjens and Vanbuel 2007: 8).

The Learn@Work model of ‘scaffolding’ induction through ICTs

The project partners sought to develop a common ‘resource’ for testing with pilot partners with at least a total of 80 worker-learners. Developing such a resource as a solid product proved problematic. The approach agreed was to use the Aalborg collaborative e-learning design (CoED) tool (Binjens and Vanbuel 2007: 45) to develop a shared framework for the design process – a philosophy of values and orientation – underpinned by existing good e-learning pedagogical principles. Three issues were to be central in the design: understanding of the learning process in induction; understanding of the specific domain for induction;

understanding of technology and the role it plays in both design and in the learning process. The pedagogic design process involved an exercise in individual ranking of up to 15 values and concepts in relation to the desired model for the project, followed by two further exercises of reduction until consensus emerged. The eventual ‘value statement’ (p.46) for the Learn@Work pedagogic materials included a requirement to consider the following eight aspects: lifelong learning, workplace learning, motivation/self-motivation, student centredness, blended approaches to learning pedagogies, collaborative professional development, and opportunities for individual, and applied learning.

The next stage in the design process was to apply the pedagogic values to the specific context and domains at two levels. The first level was to determine the timeline, goals, ways of working, materials and activities to be used in the induction pilot cases. The next stage was to illustrate how ICTs were to be used in each element of the ‘storyline’ of level one, and to include such elements as surroundings, equipment, activities, resources, tools and so on from the perspective of the worker-learners. A series of summary poster screens were used both to clarify the range of similarities and differences among the intended pilots and for future use as design tools, with a simplified version as illustrated in Table 1.

Table 1 Summary screen for Learn@Work pilot design using CoED tool

| | | |
|--------------------------|-----------------|-----------------------|
| Context and goals | | |
| | | |
| Activity | Resource | Infrastructure |
| | | |

Selecting the pilot partners

A set of common questions were agreed to inform selection of two pilot partners in each country where the materials developed by each of the five partners would be tested, perhaps with different materials for each partner. The questions were broadly as follows:

- What sectors of workers were most likely to benefit from the particular materials developed?
- What levels of competence needed to be considered?
- What access to computers would be required?
- Would broadband width matter?
- How would the package encourage a culture of on-line pedagogies?
- Would the package make a direct link between work and academia?

The pilot partners for each of the partners were as listed in Table 2.

Table 2 Summary of pilot partners and activities as the basis for the case studies

| Project partner | Pilot partner | Work sector | Pilot activity | Level of ICT involved | Innovation |
|-----------------|---|--|--|---|--|
| Scotland 1 | Adult learners progressing from diploma to degree | Any worker-learner with diploma | WBL model of academic progression | On-line learning activities | Learning contracts |
| Scotland 2 | Rail transport company | Rail workers | Progression degree by WBL | On-line learning activities | Flexible delivery by work-based learning contracts |
| Belgium 1 | Fortis Bank | Financial services staff | E-game-based job coaching | High level of gaming design | Game-based job coaching |
| Belgium 2 | National bus company | Bus drivers | Design and development of CDRom/DVD version of essential job induction information | CDRom and DVD development | Use of CDRoms and DVDs with induction information for dispersed workforce |
| Austria 1 | Small and medium size enterprises | Workers with low skills | Development of group processes for new working culture | Self-paced on-line activities with supports | Sensitive culture-change processes with on-line support for vulnerable work sector |
| Austria 2 | Adult education and HR | Workplaces and communities | On-line training in use of ICTs-based social software | High: on-line course with multi-media | On-line training is use of social software |
| Ireland 1 | Trainers Network | Trainers in workplaces and training consultants | Capacity building in use of ITCs, e-learning and WebCT | Basic ICTs, on-line collaboration through email, initial WebCT activities | WebCT platform for networking purposes in this sector |
| Ireland 2 | City Council and National Literacy Agency | Outdoor manual workers in city parks | IT literacies and study skills | Basic ICT skills using computer labs and CDs | Handbook and CD for worker-learners in ICT and study skills |
| Ireland 3 | Enable Ireland Training Centre | Workers with disabilities | Adapting IT resources for disabled users | Basic to improved ICT skills | Handbook for worker-learners and WebCT module made available |
| Ireland 4 | National College of Art and Design | Academic practitioner/fine art experts with basic ICT skills | ICTs for artists | Basic | Community of practice model |
| Ireland 5 | Skillnets childcare network | | Basic ICTs | Basic | Online communication |
| Denmark 1& 2 | Teacher training –upper secondary schools | Teachers and e-learning experts | Training in the Learn@Work CoED tool | Advanced | Applying the CoED tool to e-pedagogy design |

The range of contexts, activities and usage of ICTs evident in Table 2 gives some indication of the complexity of the project and indeed of its adaptability to the real contexts of each pilot environment.

The Dublin pilots

The Learn@Work team in the Dublin Institute of Technology was essentially made up of the three authors of this paper: an academic development expert with a particular track record in adult education, and two e-learning experts. The team used the technique of inner and outer circles of expert critical friend to assist in defining the most sustainable and immediately useful ‘resource’ to be tested with pilot groups. Among the outer circle were representatives of Fásnet E-college (a division of the national training authority), Skillnets (business networks), The National Adult Literacy Agency, City of Dublin Vocational Education Committee, EdTechUsers, Enable Ireland, and the Trainers Network. The outer circle was expected to contribute to the evaluation of the induction materials in relation to their suitability for the target groups and the future sustainability of the materials on an expanded scale in its specific socio-cultural context.

The inner circle was made up of academic colleagues with expertise in e-pedagogies, links with industry, apprentice training, web-design, student retention, mature student access, and continuing professional development. The function of the inner circle included offering advice on design and content, e-accompaniment of participants in the pilots, and evaluation of all elements.

The team isolated three discrete activities within which the circles of experts would contribute differently, namely: producing a state-of-the-art report on work-based learning and work-based e-learning in Ireland; developing and piloting an e-learning induction package with a range of potential users of e-learning at work; producing an enhanced package for

dissemination to multiple users based on the findings of the pilots. The final focus of the project was agreed as the development of a locally informed induction and support package for worker-learners with whom we currently worked, including apprentices, adult learners in their communities, workers engaged in continuing professional development, part-time student generally regardless of the level. The aim was to introduce these potential users to computers generally, to basic ICT skills, to e-learning, to the use of the WebCT platform, and to the academic study skills required for sustainable participation in formal, work-related training and education. It was essentially an induction and capacity-building package to essential skills for successful learning with the use of ICTs, whether that learning was formally structured or occurring more informally and embedded in work practices.

State-of-the-art and contextual policy discourses

The state-of-the-art report about induction and support for worker-learners using e-technologies in Ireland produced in 2005–2006 presented an employment landscape somewhat different to that pertaining at the time of writing of this article in late 2009, where there is a considerable reduction in numbers employed in all sectors and at all levels. In 2006, however, there were *circa* 40 software and IT companies employing in excess of 20,000 workers. A favourable tax regime and the encouragement of inward migration were incentivising the growth of high-technology companies in a national strategy to move to a knowledge economy. However, the profile of work-based learning, unsurprisingly, revealed that new entrants were more likely to be offered training than older workers; that workers with low levels of education were unlikely to receive any training opportunities; that part-time and temporary workers rarely received training; that union members and employees in large companies were more likely to be offered training than vulnerable, contract workers in small and medium enterprises.

In relation to ‘e-learning’ in Irish workplaces, a precise profile was difficult to draw since the term itself is vague and ambiguous. However, a survey conducted by the Chartered Institute of Personnel Development (CIPD) in 2003 found that large, multi-national companies used generic e-learning as normal practice as did private non-national organisations. The survey also found that Irish companies preferred face-to-face training or customised e-learning packages to generic products and that e-packages alone were rarely used (CIPD 2003a). A 2005 study by the Forfás Expert Group on Future Skills Needs found that education providers rarely included sufficient theories of instructional design and pedagogical methods in their e-learning programmes and were insufficiently aware of what workplaces actually need from e-learning packages in a rapidly changing economy. They particularly identified the dearth of academic–industry partnership in e-learning development as a weakness. A second report for the CIPD in November 2003 and a Skillnets survey identified infrastructure, bandwidth, remote wireless access, availability of competent e-expert trainers and traditional workplace cultures as important factors in future expansion of e-learning. The term ‘techno-economic paradigm’ was used to capture the need to link economic development policy with how education and training were likely to fuse in the future.

The Dublin e-package

Following extensive consultation with inner and outer circle experts, and considering the expertise of the project team, the Dublin pilots were eventually publicised in the first information brochure as:

Capacity Building (Induction) for computer-based learning skills, using ICTs, E-learning,
Library Research and Academic Study Skills: pilot projects with worker-learners,
apprentices and part-time students

The aim of the pilots was stated as testing the best way to use a combination of face-to-face, paper-based and computer-based e-learning activities for learners-at-work and part-time students to acquire the skills to succeed in a formal training course where computers and e-learning are required. Six small groups were initially invited to test the package of materials presented in three forms: a handbook, a CD Rom, and an on-line, inter-active programme.

E-accompaniers from the circles of experts were nominated to work with each of the groups. The pilot participants were expected to give up to five hours each to test the materials, some as part of their structured work-based training (apprentices, workers with disabilities, and city park workers), others as volunteers. The e-accompanier worked with the group to decide the level and main content from the materials to be tested in the pilot, and to facilitate access to WebCT. The participants needed access to a computer, to the internet, time, and a sense of ‘adventure’. The model was open and flexible with no predetermined level of learning outcomes other than the overall goals of the project, no fees, no assessments, no credits and no accreditation.

The conceptual framework to inform good e-induction and support

The Dublin pilots shared a common pedagogical design framework and agreed principles with design features as follows:

- the design of the environment and tools should be participative and learner-oriented with both the immediate and future learning needs of the participants considered
- the product should be easy to use and should enhance autonomous learning
- the local socio-cultural context should be considered as well as global developments.

Design challenges

While the design features above are common in adult and community-based education they are generally less encouraged in the pedagogical conception of formal education and training events. In particular they raised challenges about how assumptions are made regarding the ‘profile’ or ‘identity’ of the worker-learner in the traditional sense, about designing for the ‘generic’ or ‘normal’ student, about preferences to describe learning in terms of academic levels, pre-determined learning outcomes, assessment and certification, and not to engage with learner support beyond induction (Murphy 2007a; Murphy et al. 2008).

A more practical challenge was related to access to computers and broadband internet connection in workplaces where ICTs are not commonplace, or where workers are outdoors or mobile, regardless of their prior levels of learning. The design team was acutely aware that workplaces are complex sites with complex subsystems of organisation and inter-relationships. They took close note of the advice of the Royal Irish Academy (2006) in relation to the interface of academia and the workplace which urged a principled approach to research projects and to knowledge production based on clearly articulated expectations, strong personal relationships and a culture of trust and mutual understanding, urging academics to be more tolerant of risk, more adaptable and more nurturing of individual innovations. The team also took careful note of changing discourses in relation to the remit of higher education as a public knowledge institution and the growing expectation that it should make research products available for the benefit of society and the economy in a coherent and accountable way. In this policy context the team generated a framework of working principles to inform the design, implementation, evaluation and dissemination of Learn@Work materials as follows:

Principle 1: the design of the package should be informed by an understanding of both traditional college-based learning and of emerging paradigms of learning through work

Principle 2: the pedagogical approach in delivery of the package should take account of motivation, self-efficacy, affordances and supports in relation to the specific context of users/worker-learners

Principle 3: the design and delivery approach should be open-ended, loosely structured, adaptive, responsive and authentic

Principle 4: the design should be un-inhibited by technologies of modularisation, credit systems, assessment or certification

Principle 5: the package should be free from pre-determined learning outcomes pitched at particular levels

Principle 6: the language, style, images and general formatting of the package should take account of good literacy practice

Principle 7: the package should include paper-based materials, CD materials, computer-based and internet-based materials, so as to minimise inequities of personal resources and workplace affordances

Principle 8: induction and support should include face-to-face contact at a level appropriate to the needs of the particular worker-learners

Principle 9: activities within the packages should be adaptable to the authentic context of the worker-learner

Principle 10: the overall thrust of the package should be towards development of worker-learner capabilities to direct their own sustainable and independent learning and to decide their future learning careers.

Implementation of the Dublin pilots

The Dublin pilots were implemented over a seven months' timeframe with the co-operation of DIT staff and group leaders for each pilot. Table 3 summarises the types of worker-learners in each pilot group, the ICT skills level of the group leader and the number of participants in each case.

Table 3 **Dublin pilot summary**

| Pilot group | Number of participants | Group leader's e-competence | E-accompaniers' involvement |
|---|-------------------------------|--|---|
| Lecturers in fine art in a third level college | 5 | Basic ICT skills | Initial meeting and weekly follow-up |
| Independent trainers | 4 | Basic ICT skills | Initial meeting and weekly follow-up |
| Public park workers involved in adult basic education | 8 | Adult basic education tutor with advanced ICT competence | Initial meeting and follow-up every two weeks |
| Training centre participants | 8 | ICT trainer | As requested by trainer |
| Childcare workers | 6 | IC competent | Initial meeting only |
| | 31 total | | |

Turning the pilots into case studies

The task of turning a diverse range of pilot studies across the entire project into usable and coherent case studies was the task of the Danish partners colleagues (Georgsen and Nyvang, 2007). Two summary tables to illustrate that diversity were produced to illustrate the induction goals, forms of delivery and role of ICTs across the pilots (Tables 4 and 5):

Table 4 From pilots to case studies

| | GCU - BA | GCU – B.Sc. | DIT | ATiT - De Lijn | ATiT - Fortis |
|---------------------------------------|---|------------------------------|--|--|--|
| Worker-Learners | 18, SCQF level 9 | 30–40, SCQF level 8 and 9 | 43, NQAI level 6–9 | New employees, administrative staff | Job coaches |
| Goal (induction) | Basic ICT skills for on-line learning, academic literacy | | Basic ICT skills for on-line learning, academic literacy | Basic knowledge of practices and procedures | Improvement of coaching skills; change of identity from colleague to coach |
| Form of teaching/modes of delivery | Face-to-face, on-line | | Face-to-face, on-line | Face-to-face, reading | Paper, on-line game to use with the trainee |
| ICT role | Learning Management System (LMS), e-mail, website information/communication | | LMS, e-mail, website information/communi cation | DVD/CDRom | Game |

Table 5

| | IFS - GLIA | IFS - AMG | AAU – High schools | (AAU – NVU) |
|---|--|---|--|--|
| Worker–Learners | 10 trainers in adult education, teachers, HR managers | 330 unskilled workers | 3 x 3 (4) upper secondary-school teachers | Unskilled workers |
| Goal (induction) | Better teaching and training skills, focus on use of social software | A new learning culture within the participating organisations | Increased practical and theoretical knowledge about ICT in teaching and learning | Increased ability to use the ICT involved in the shovel and scaffold courses |
| Form of teaching/modes of delivery | Face-to-face, on-line | Face-to-face workshops, role plays, theatre, etc. | Face-to-face, on-line knowledge sharing and collaboration | Face-to-face, on-line exercises |
| ICT role | On-line learning, social software | Minor role so far | LMS for on-line activities | LMS for on-line activities, e-materials |

This description was followed by an analytical framework, or taxonomy, to illustrate the levels of complexity and underpinning theories of learning that seem to have been applied in the different pilots. The taxonomy included aspects related to the goals of the induction, the nature of the induction activities, the intent to effect change, and the extent of the learning gap to be addressed. Georgsen and Nyvang plotted the pilot evaluation data using two vertical and horizontal axes illustrating the absolute scale related to goals and activities and the relative relationship of the pilot in relation to change and learning gaps, as illustrated in Figure 1 and Figure 2, which they advised should be used in relation to CoED design tool outcomes for each pilot.

Figure 1 **Goals and activities**

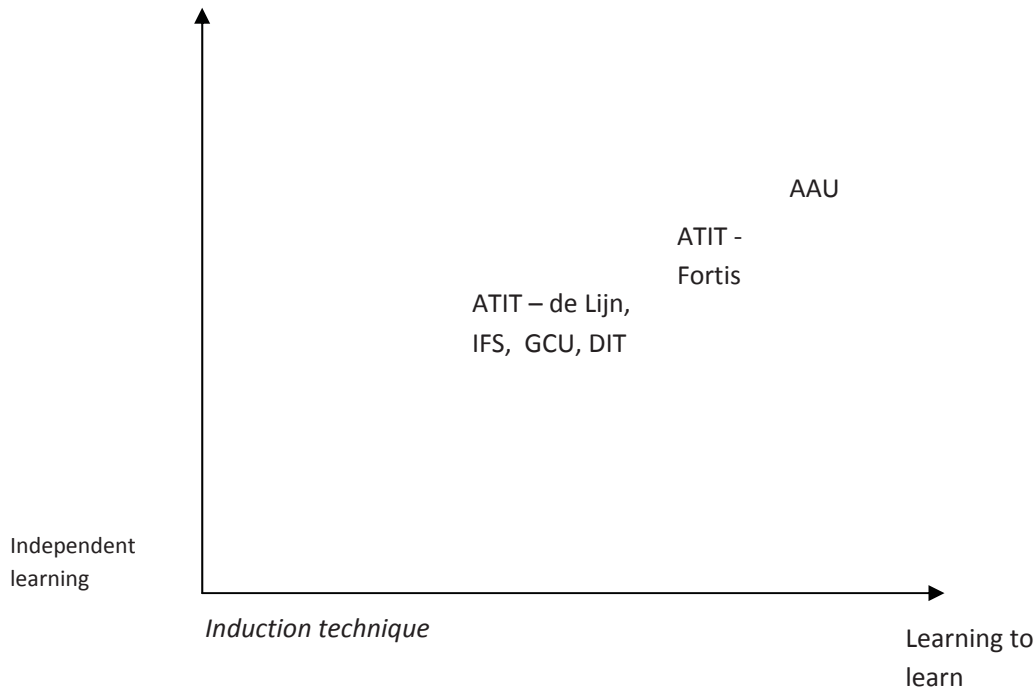
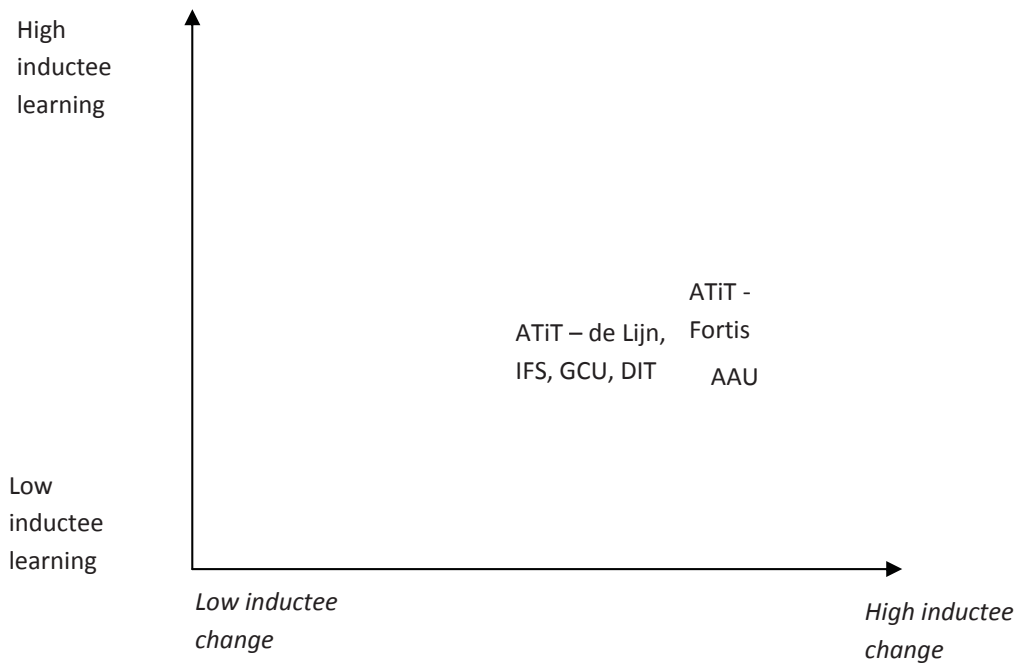


Figure 2 **Change intent and learning gap**

Final evaluation findings for the project

Overall the evaluation findings from the Dublin pilot groups were positive. Participants particularly liked the following:

- the strong e-learning elements which had good induction and support;
- the focus on worker-learners themselves;
- the continuing usefulness of the materials for other situations in the future as they emerge.

Weaknesses they indentified included:

- the difficulty in addressing all the needs of individual worker-learners in one package;

- the need for high support from e-accompaniers;
- the need for easy, on-going access to ICTs and internet broadband connection.

Aspects of the project which were evaluated as sustainable included:

- the materials themselves as designed by the partner countries for their range of contexts;
- the concept of induction and support;
- the guides;
- the data in the state-of-the-art reports as a benchmark for future research and analysis;
- the case studies and networks.

Evaluation of the project by the EU itself was also positive with follow-up in relation to dissemination of materials and analytical tools.

Reflections two years on

For the purpose of this journal article, and considering the likely global readership, it would be useful – but prohibitive – to permit individual reflections from the range of persons involved in the Dublin pilots. What we can reflect on with consensus, however, is the sustained interest in the materials since the project ended. There has been multiple usage of the paper-based handbook for adult learners and new postgraduate students. An even wider range of users have requested access to the accompanying, interactive on-line version of the handbook. Versions have been produced for community-based education, for apprentices, for off-campus learners, and as programme resources for traditional students. It would be fair to

say that there was sustained interest initially in the ICT section with increasingly more interest recently in study skills and academic writing skills specifically. Additionally, there is increasing interest in reflection on prior learning and preparation of career portfolios: doubtless an indicator of the negative employment landscape and the increased need for re-skilling.

What was less used was the inter-active version of the materials probably because of difficulties with passwords and changing web systems when it was on the college intranet: a valuable lesson in design for access and equity.

However, we addressed this latter issue by updating the materials using funding from a national project related to learning in employment and made it freely available without restriction on our Institute website to workers seeking to improve their life chances through up-skilling and capacity building. We also intend to disseminate the materials through our circles of experts and their organisations.

What may still be worthy of consideration toward better e-practice by higher education practitioners for worker-learners are the following emerging design principles:

- E-induction and support materials may have a generic core, but will inevitably be re-designed for the context of the particular programme of study concerned
- Useful materials will be written in plain language, free from jargon and assumptions
- Materials will be ‘adult-friendly’ to be useful for any level of study from initial training to graduate level
- The focus will be on capacity development for *learning* rather than on achievement of curriculum goals

- Models will draw on *adult learning theory* rather than on standard instructional design theory
- E-designers will offer a theoretical defence of their design principles and pedagogical models to academic staff who actually need to implement such designs
- E-designers will field-test their proposals themselves with ‘real’ worker-learners prior to proposing them to programme teams.

Where to next for Learn@Work?

The evaluation of the project identified areas which could be immediately developed to a further level. These included the game-based and social-software based induction and support for workers into a new job, new role, or new working culture, as developed by the Belgian and Austrian partners. The Scottish and Irish partners focused on induction and support for worker-learners in relation to higher education and lifelong learning, and here too, there was an identified need for further research into how e-learning designers understand the worker-learner (Murphy et al. 2008). Closely related to this was the need to further understand the process of induction and support in contemporary workplaces and how they might interface with academic processes. There were possible future research possibilities in exploring how the models could be scaled up without losing their local significance, and indeed, how such research projects might seek to influence policy at the local and national level.

What has not yet become clear is how well induction and support models travel across continents with different context and expectations from higher education providers. Where traditions and technologies facilitate e-induction and e-support the task is relatively easy. Where inequities of access are a significant feature, there may be an argument that the digital divide only gets wider if there are reductions in traditional models and approaches. With this

concern to the fore, the Dublin Institute of Technology has a long tradition of making ICTs available in community housing contiguous to its campus sites with structured support and training with the expectation of facilitating increased access to social and economic capital. The Learn@Work materials will continue to be just one element in such a strategy and sight will not be lost of the human element in generation of sustainable cultural and social capital.

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