

# Development of Transnational Work-Based Learning in the Curriculum

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## Abstract

This pilot HEA/UKCISA “Connections” project undertaken primarily from mid-February to June 2012 draws by interview upon the experiences of technology students and their host employers on work placement abroad, and the perspectives of other surveyed students and employers, to contribute to the development of transnational/international WBL in the curriculum. It extends the “transnational employability” theme of related University and Leonardo Mobility funded collaborative projects involving the Technology School, “Bildungszentrum fuer Informationverarbeitende Berufe” – translated as the “Educational Centre for Information Processing Professions” and EISC Ltd since September 2010.

Outcomes from the project include a life-cycle model for supporting transnational work placement in the curriculum, a first attempt to attract students to work placement using social media, a brief analysis of perspectives of the knowledge, skills and attitudes required to work globally with reference to a published “graduate attributes” framework, example internationalised learning activities related to graduate employability skills development

## 1. Introduction

This UKCISA/HEA Connections pilot project was undertaken collaboratively by the Technology School of Southampton Solent University (SSU), the “Bildungszentrum fuer Informationverarbeitende Berufe” (b.i.b)– translated as the “Educational Centre for Information Processing Professions” International College (Germany), EISC Ltd European Information Service Centre (an Enterprise Europe

company) located in offices at the Southampton & Fareham Chamber of Commerce & Industry in Southampton, and 2 computing students (one representing the SSU Solent Students Union). The work was carried out in 2012 primarily from mid-February to June with dissemination in late June. The report for this project, which refers to this open resource, is available on the UKCISA web site. It extends the “transnational employability” theme of related strategic University and Leonardo Mobility funded projects involving the Technology School, b.i.b. and EISC Ltd.

This resource focuses on providing findings that should be of value to SSU and b.i.b. more widely and to other institutions. It provides context only to the extent that this should help clarify the scope and limitations of the findings. All essential project design artefacts (questionnaires, interviews etc) and resulting transcripts and data are included. Interested parties can then draw their own conclusions, draw upon it for other studies or indeed could contribute to a more substantive study.

There is evidence that transnational work-based learning enhances employability. For example, a Council for Industry and Higher Education study [1] of 233 employers includes in its header, quoted by Macleod, *“The value of [a student’s] international experience goes beyond purely the acquisition of language – it lies in the ability to see business and personal issues from other than your own cultural perspective.”* and, in its summary, *“Moreover “65% of international employers indicate that having overseas professional work experience makes graduates more employable”*. However, what are student and employer views of these issues based on current transnational work-based learning experiences?, does this triangulate with the literature? and how might this inform the curriculum?

According to Erasmus statistics [2] available on the British Council web site, only about 500 UK students pursued work placements in “Science, Mathematics and Computing” in 2009-10 (2010-11 data not available). What might be reasons for this based on current student perspectives?, how might participation be increased using contemporary approaches such as social media? and how might a transnational work placement programme be supported?

This pilot project tackles these questions by building on the related EPlus and Leonardo Mobility projects. The methodology for achieving the intended project outcomes and tackling these questions is outlined in section 2. In particular, it has drawn on indicative student and employer perspectives of transnational work-based placements underway in the UK and Germany during this further project. This has enabled a brief analysis, discussed in section 3, of the knowledge, skills and attitudes required to work in business and industry internationally, and benefits and problems of transnational work placements. This analysis has informed internationalisation enhancements to the graduate skills development curriculum in section 4, and potential teaching and learning activities for all students, home and international, and whether they actually pursue a transnational work placement or not. Section 5 discusses the development of transnational work placements including a proposed lifecycle model. Section 6 discusses a student-focused

approach using social media to attract students to transnational work placements. Overall conclusions are drawn including an indication of how this pilot work might be taken forward.

## **2.0 Methodology**

This project is informed by a transnational and institutional comparative literature review with respect to graduate employability, including work-based learning and mobility within the EU, which was compiled during the EPlus project. A research project plan was devised to meet the intended project outcomes. Essentially, the plan incorporated a methodology based on triangulating current student and employer perspectives of working internationally with the literature, and hence leading to enhancements to the WBL curriculum with respect to developing skills and transnational work placements.

### **2.1 Student and Employer Placement Perspectives**

Current and potential 2<sup>nd</sup> year (level 5) Technology placement students and their employers were interviewed and surveyed including:

Start and end group interviews of student-focussed core group

*A group interview method was chosen because of the small group size, and to facilitate an efficient and effective synthesis of the perspective of the participants. 2 students.*

Group interview of employers

*A group interview method was chosen for the same reason as above, and at the end only to avoid taking up too much employer time.*

Erasmus SSU student interviewed at Roland Berger, a German Consultancy company.

*An individual interview, based on similar questions, was conducted particularly because of the valuable perspective gained from a longer 48-week experience. As a global organisation, Roland Berger were able to place one of the students in a role that is appropriate for an enthusiastic beginner in the German language*

Roland Berger in-depth “case study” and employer interview

*An individual interview, based on similar questions, was conducted particularly because of the position and business of Roland Berger in the global economy.*

EISC has access to an European-wide network of enterprises (which was also drawn upon in identifying the work placement opportunities). An online survey URL was sent to this network using the email address in the database. Although response rates are normally low with this approach, it nevertheless was the most efficient and cost-effective solution to gain this additional data.

### **2.2 Attracting Students to Transnational Work Placements**

All the second year SSU students who attended class during the survey week were asked to complete a paper questionnaire about their preconceptions about transnational work-based learning in the curriculum perceptions at the start of a social media trial to attract students. Although this required manual processing, it

was decided that this approach would maximise the return. It was the intention to measure the effect of using social media by surveying the students at the end of the trial, but this proved impractical as the students had started their examinations period.

### **3.0 Knowledge, Skills and Attitudes in the Global Economy**

Universities and other organisations have proposed definitions of attributes that graduates should achieve. In order to triangulate the student and employer perspectives in this project with a well researched and established framework, Graduate Attributes Indicators (GAI) has been chosen [3] In particular, this is based on significant primary data from Australian HE institutions and beyond. In addition to expected attributes such as Written and Oral Communication, Teamwork and IT Skills, it also includes Intercultural Understanding.

#### **3.1 Analysis of the Student and Employer Perspectives**

**GAI** - Written and Oral Communication Skills

Interpersonal and communication skills is rated highly in the survey of employers.

**Teamwork Skills**

Ability to work as part of a team... is rated as top in the survey of employers.

**Intercultural Understanding**

The student confirmed in the start and end interviews the importance of intercultural understanding including “*a sensitivity to other cultures*”.

**Using ICT**

It is evident in the student interviews that IT skills were helpful, notably “*IT skills are a great international means of communication*”. The global predominance and consistency of office and software development tools IT tools also clearly helps as indicated by the employer view that “*The international language of IT is English*”.

**OTHER - Language Skills**

Language skills are clearly important. However, “*Much of the language of IT is also in English*”) and “*but those without much German could get by if they were keen to learn and fit in*”.

**Attitudes**

Unsurprisingly, “*Being motivated and enthusiastic*” by employees. The students indicated “*Open to new things, adaptable, confident*” and “*Being prepared to take risks and move out of one’s comfort zone*”.

**Discipline-Specific Skills**

It is evident that computing/IT skills were highly valued (and additionally helped because of the international nature of IT).

#### **3.2 Fresh Insights**

Although the pilot study did not tease out any particularly significant fresh insight to inform the international graduate skills development curriculum, it did to some

extent reinforce the currency and relevance of GAI and other established frameworks.

## **4.0 Internationalising the Graduate Skills Development Curriculum**

There appears comparatively little in the literature on internationalising the graduate skills development curriculum particularly in a disciplinary context of, for example, STEM subjects. One exception though is a technical contribution to computing/IT from Loughborough University available in the Internationalisation section on the HEA website.

This section presents, in the context of graduate skills development in the Technology School, potential “quick-win” and cross-discipline international enhancements to the curriculum.

### **4.1 Graduate Development Unit**

Graduate Development is a 20 credit point level 5 unit that is delivered on the second year of virtually all the courses in the Technology School. The following introduces the unit to the student:

*“Graduate Development is designed to support you in understanding the professional and other opportunities that are available to you as a Graduate, to help you develop a sense of where you might like to be when you graduate and to develop a personal 'road map' for getting there. The unit is divided into four themes:*

*Graduate skills and attributes*

*Career development*

*Developing a final year project proposal  
professionalism and 'your industry'*

*Each of these themes comprises a number of activities, some of which require you to undertake specific preparation prior to attending. The materials that you produce from activities and preparation tasks need to be kept in electronic form because this evidence of your participation will form part of a portfolio that is submitted at the end of the unit.”*

### **4.2 Internationalising Learning Activities**

Graduate Opportunities is the first of 12 existing “formulaic” activities. It shows a “quick-win” example of internationalising an activity. Further examples include introducing the Europass CV in “Getting your CV right” and international dimensions to professional bodies (eg the BCS, The Chartered Institute for IT).

“Global Project Management” activity is a proposed activity that would expose the students to temporal, geographical, intercultural and language issues. This could be made more discipline specific, for example, a global software development project or a global marketing development project.

As anticipated, it will not be possible to trial and fully evaluate these activities until next academic year.

## **5.0 Development of Transnational Work Placements**

Considerable collaborative work has already been put in since September 2010 in resourcing, attracting matching, preparing, inducting and supporting at work the 6 Leonardo Mobility supported b.i.b. students in Hampshire and the Erasmus-supported School student in Munich for the 2011-12 academic year. This developing “life-cycle” process, which is discussed in more detail below, is currently underway for 2012-13 with 2 School students now placed in a German company and with a further four b.i.b. students (under a final year of Leonardo funding) to be matched to the same companies as this year.

### **5.1 A Transnational Work Placement Life-Cycle Model**

The life-cycle, which should be consistent with the institution’s requirements for work placements, includes key additional institution, student and company responsibilities for the transnational dimension.

The Transnational Work Based Placement Life-cycle Model consists of the following stages - RESOURCE, ATTRACT, MATCH, PREPARE, INDUCT, WORK, CONCLUDE then EVALUATE, IMPROVE and PLAN for the next iteration of this cycle.

RESOURCE consists of

Institution(s) - apply for funding (Leonardo Mobility, Erasmus), identify companies abroad, identify collaborating or supporting institutions abroad.

Company) respond with outline job specification (include software tools etc)

Notes - virtually essential that the institutions find the placement opportunities and additional funding support is very important

ATTRACT consists of

Institution(s) – Inform/inspire students of/to opportunities; Students engage with blog.

MATCH consists of

Institution(s) - co-ordinate application process;

Student - letter of acceptance/CV, applying for funding, student arrange Skype interview.

Notes - aim for two in same company for mutual support and essential for institution to manage matching process.

PREPARE consists of

Institution(s) - language training, Intercultural training, institutional requirements for placements (include risk assessments etc, requirements list for students.

Student - find accommodation, arrange insurance etc as per requirements list

Company - meet company requirements, provision of desk space etc

Notes - Institution and company can help with finding accommodation, language translation of documents may be necessary, essential that student takes responsibility

INDUCT consists of

Institution(s) - introduce to the local support tutor, Intercultural training

Student - attend induction

Company - company specific Introduction

WORK consists of

Institution(s) - monitor placement including transnational visit

Student - complete project work and assessment, social media peer support network

Company - monitor work and provide feedback

CONCLUDE consists of Institution(s) - assess work placement

Student - submit assessment

Company - contribute to assessment (in English).

With reference to resourcing, the collaborative approach taken so far, and the survey that showed that 70% (of 66 mainly UK) companies are prepared to take placement students, raises confidence that a sufficient supply of companies can be established and maintained. Attracting more students to transnational placements presents a challenge which is discussed in section 6.

Managing the process of matching students to companies is considered a key institutional responsibility. However, it is recommended that the student takes central responsibility for ensuring that all listed requirements (academic, financial and domestic) have been met and documented online (with input from the company and institution as appropriate) during the preparation stage. For example, the student takes responsibility for applying for Erasmus funding and for finding accommodation from approved sources. It is clearly evident that the development of transnational work placements requires considerable work by the institutions, companies and students, but the benefits are clear from the interviews and in the literature and will not be repeated here.

## **5.2 Vision of the Future**

The pilot realisation of work placements shows the potential to develop work placements in Europe and further afield. The numbers in the Technology School have doubled, and there is the potential of attracting new students to a distinctive and viable offering of transnational work placement opportunities supported by an effective and efficient process.

## **6.0 Attracting Students to Transnational Placements**

This section describes the design, implementation and outcome of the social media experiment undertaken by student A (placement student and blogger) and fellow student and team member student B (Students Union Officer). Initially, with the project proposal brief as the starting point, they brainstormed the what, why and how of this experiment. This reinforced the main objective to motivate students to go on transnational placement, but additionally to provide a useful resource for students considering or preparing for a transnational work placement.

### **6.1 Design**

Essentially, after considering various social media options, it was decided to implement an externally hosted blog “Reflections of an Intern” run by student A with the prior approval of the German Consultants. The blog would essentially be a timeline narrative of being on transnational placement starting with a blog post about the placement and concluding with calling peer students to action! The chosen blogging tool also provides a comprehensive range of statistics that should provide valuable measures of the impact of the blog.

### **6.2 Implementation and Restrictions**

In order to facilitate engagement with the blog, a 250 word post limit was imposed. The reasoning being that it doesn't leave too much for student A to write, students to read and then if they have any questions they can ask them, and more than likely they should do since the blog post would only cover the essentials. Furthermore no account is needed to access the blog.

The blog would run from the 23rd April to the 8th June at the end of term, with narrative posts made by student A normally every week. All 200 second year students on the IT and computing courses were informed by email followed by timely reminders, and the schedule designed to accommodate as far as possible the very busy end of session schedule of assessments for the students.

### **6.3 Outcome and Evaluation**

The outcome was disappointing, but not entirely unexpected. It is the intention, with student A as an advisor, to run the blog next year with the 2 new students.

## **7.0 Intended and Achieved Outcomes**

Engagement with international work-based learning in the curriculum is relatively low, particularly in STEM disciplines in the UK. The planned and achieved (refer also associated report for a more detailed discussion) outcomes of this pilot project are therefore:



- Analysis of student perspectives of the skills, knowledge and attitudes needed for employment in the global economy based on transnational work placement experiences.
- Triangulation of this perspective with the academic/industrial literature and identification of fresh international business/intercultural insights for existing employability skills frameworks.
- Recommendation of corresponding international enhancements to the graduate skills development curriculum.
- Design and evaluation of corresponding teaching and learning activities.
- Design, trial and evaluation of a student-focussed approach using online media to inspire peers to apply and prepare for transnational placement opportunities.

## **7.1 EPlus, Leonardo Mobility and “Connections” Projects Overview**

E Plus - a practice oriented and transnational approach to enhance graduate employability is a strategic collaborative project of the Technology School and the b.i.b. International College, and is based on the core linked themes of work-based learning, industry-focussed learning, international learning and career management learning. The core work of EPlus was undertaken from September 2010 to February 2011. It was the next developmental stage of a collaboration that, having started in 2005, now prepares and supports [4] over 150 students studying at level 6 on technology, business and media courses throughout the University.

This Connections project builds on and extends the work-based learning initiatives of EPlus. In particular, the Technology School and b.i.b. (Hannover campus) sought to develop reciprocal work-based learning opportunities for our students. This led to a successful EU Lifelong Learning Programme Leonardo Student Mobility (IVT) application submitted by b.i.b. to support 6 b.i.b. students undertaking their core 2<sup>nd</sup> year 8-week project-based work experience in the Southampton region through January to April 2012. The Technology School (as the partner institution) and other University services helped to organise the placements including

## **8.0 Views of Employers**

The resource contains all of the student and employer survey and interview transcripts. An example of a transcription of the interview with an employer follows.

Do you regret your decision to offer a transnational placement?  
Absolutely not

What Knowledge, Skills and Attitudes helped the students to succeed on a transnational placement?

The students' knowledge of English

Their Java skills allowed them to adapt to the .NET framework

Difficult to say if this was a feature of their nationality or whether these attitudes were specific to this particular group of students but they all showed themselves to be self-starters who were very task-focussed and had a good work ethic.

What problems did you meet as a result of the transnational nature of the placement?

There would have been problems if they had not been able to communicate so well. The amount of documentation the students had to complete to satisfy the academic basis of the placement was a distraction but that may be true for academic placements whether they are transnational or not.

What benefits did you receive as a result of the transnational nature of the placement?

One placement provider actively benefitted from the students being native German speakers since they were working on a project for the German market. Also, the strong work ethic demonstrated by these students could be based in the German culture, in which case it could be regarded as a transnational benefit.

Do you regard the experience as a success?

Total success – although there are also lessons for the future if this project expands.

Can you think of ways in which the universities could have provided more help to improve the success?

If the students had been introduced to .NET and more up-to-date project management models (Waterfall was regarded as outdated, with most companies using Agile methodologies) they could have been more productive from the start. The requirement for the students to document everything, in English, for their academic purposes was time-consuming for them and ran counter to working practice in most modern companies where result/output is more important. The University could establish relationships with other educational establishments near the placements so that both students and employers had an additional network to help with accommodation, social life etc

The university could better alert students to cost of living/ differences in accommodation and could give placement providers guidance on the legal/financial requirements of taking on placement students. Employers were often dealing with apprentices/interns/short and long placements and it is important that issues of payment and who makes those payments are clear. (This was, in fact, less of an issue for transnational students but it has prevented UK employers from offering UK students placements because of Job centre regulations.) The university could let the provider know what it was necessary for the students to do to fulfil their course requirement. The provider could then ensure that the students were given sufficient opportunities to meet their academic targets.

Can you think of ways in which you, as the placement provider, could have provided more help to improve the success?

Especially with short placements, ensure that there are clear expectations and that everything is in place (including software, supervision etc) so that when the students arrive, everything is, as far as possible, “ready to go”. Providers could also use their employee and social networks to help with accommodation.

Would you recommend others to offer transnational placements?

Totally, but providers need to recognise that if it is a relatively short placement then the “getting up to speed” time that they have to put in will be proportionally greater than if students were spending longer with them.

Do you have any general recommendations for improving the success of transnational placements for future participants?

The university could put together a tick list of expectations that is agreed between the university / the student and the provider so that it is clear who takes responsibility for what and by when.

Any further comments?

One way of cutting down on documentation and so easing the tension between academic demands and the business imperative of working application could be using a wiki.

## **9.0 Conclusions**

### **9.1 Transnational Work Placements**

Pilot reciprocal transnational work placements have been completed successfully based on EU funding to support the students and time freely given by many colleagues collaborating in three institutions. All the students and employers without exception were unequivocal that the transnational placement was a success for both parties. In particular, international experience contributed to enhanced employability for the students, and valuable work completed for the employers. Based on this experience, a work placement lifecycle has been established which should inform the potential to develop and operate a scalable, effective, efficient, beneficial and viable transnational work placement programme. However, a sustainable transnational work placement programme is unlikely to succeed unless this lifecycle incorporates clearly informed and achievable faculty, student and company responsibilities that meet the regulations [5-7]. In particular, the student should play a central role in ensuring that specified academic, financial, domestic and regulatory requirements have been met.

Further work, including using social media, is needed to attract student to these opportunities. However, it may be that providing a distinctive provision of transnational opportunities may attract additional students. Initial lack of foreign language skills need not necessarily be a barrier, and the supply of transnational opportunities (in this faculty context) exceeds the demand. Finally, if internationalisation is a key element and priority of a University or Faculty

strategic plan, then it should include a transnational work placement programme. Resourcing would then be needed to establish a sustainable lifecycle infrastructure.

## **9.2 Internationalising the Curriculum**

Although the pilot study did not tease out any particularly significant fresh insight into the international curriculum, it did reinforce the currency and relevance of existing graduate attributes skills frameworks. The example graduate skills development learning activities show that it is relatively straightforward (and resource neutral) to enhance the curriculum with activities that develop international knowledge and skills for all students.

## **9.3 Connecting Potential Stakeholders**

This project and its events illustrate the value of a significant work placement programme, whether transnational or national, in connecting employers, students, faculties and services. In particular, forging on-going mutually beneficial collaborations with employers has been a significant benefit from these projects.

## **10.0 Acknowledgement**

This project would not have been possible without the funding and support throughout of the HEA and UKCISA

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