

Virtual Mobility and Work Placements

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Key words: *virtual mobility, work placement, internationalization, educational technologies*

Abstract:

Work placements can play an important role in the knowledge transfer between higher education institutions and the business community. In a global economy it is also becoming more and more important to introduce students to an international working environment during their education. When students go physically abroad for a work placement, preparation, coaching and follow-up of students is not always optimal. Furthermore, there are also students who, for financial, geographical or social reasons, do not have the possibility to go abroad. The EU-VIP project wants to offer solutions to these problems by enhancing international work placements with virtual mobility through the use of new technologies.

1 Introduction

Internationalisation has become one of the key issues in present day European Higher Education. It consists of a conscious integration of an international dimension into research and teaching, mostly in response to the challenges brought about by globalisation. In this context, the European Commission aims to enhance physical student mobility via the Erasmus exchange programme substantially by 2012. For a large number of students though it is not possible to go abroad for social, financial or other reasons. On the other hand, the growing success of Erasmus and other exchange programmes has revealed a new need for students to get more and better guidance and support. We believe Virtual Mobility can offer solutions in both cases [1].

Virtual Mobility is a term that has a broad scope. At AVNet, an educational support unit of the K.U.Leuven (BE), we define the concept of Virtual Mobility as „a set of ICT supported activities that realise or facilitate international, collaborative experiences in a context of teaching and /or learning“[2]. There are different levels at which Virtual Mobility can be implemented in higher education: the level of the assignment, the course, the curriculum, etc. In this paper we will focus on the enhancement of international work placements through the use of new technologies.

Work placements are an important way of exposing college students to complex work problems that require analytical, technical and soft skills. They play an essential role in helping graduates obtain the competencies and skills that are necessary in a dynamic knowledge economy [3]. In a context of increasing global economic connectivity and interdependence, gaining practical work experience in an international environment is also becoming more and more important. However, traditional international work placements, where the learner travels to the company abroad, require a high degree of flexibility and there are regularly financial, geographical, social and other barriers to such physical mobility.

For those physical placements abroad that do happen, there are also a number of difficulties to overcome, e.g. students receive insufficient and discontinuous feedback from their home institution, communication between the enterprise and the higher education institution is often lacking, feedback about a placement at an enterprise to the higher education institution and vice-versa is barely formalised, etc.

In this paper we will present the first results of the EU-VIP project. EU-VIP stands for Enterprise-University Virtual Placements. In answer to the issues raised above, this project looks into the possibilities Virtual Mobility can offer in the area of international work placements. The end goal of the project is to develop guidelines for:

- virtual mobility activities to support international placements (or „blended“ placements),
- fully virtual placements.

2 About the project

The EU-VIP project brings together 16 partners from 8 different countries. To ensure the success of the project all target groups are represented: the consortium is composed of higher education institutions and European not-for profit associations of universities, businesses and students:

Katholieke Universiteit Leuven (BE), coordinator
 University of Bologna (IT)
 Aalto University (FI)
 West Pomerian Business School (PL)
 FernUniversität Hagen (DE)
 Laurea University of Applied Sciences (DE)
 EAL, TietgenSkolen (DK)
 Katholieke Hogeschool Leuven (BE)

University of Padova (IT)
 University of Groningen (NL)
 EADTU (NL)
 Coimbra Group (BE)
 EuroPACE ivzw (BE)
 EFMD (BE)
 BEST (FR)
 University of Turku (FI)

The project runs from October 2009 until September 2011. The guidelines for integrating virtual mobility in work placements are developed through a process of testing and implementing scenarios in 18 pilot projects. These pilot projects are evaluated by the pilot participants. The feedback from these stakeholders is used to improve and optimize the developed scenarios.

Further in this paper we will describe the general framework that was initially developed for setting up the pilot projects. Four pilot projects have been executed so far. The results of these pilots already provide some useful feedback and input for the guidelines.

3 General framework for virtual and blended placements

3.1 Pedagogical foundations [4]

The way in which an internship mainly differs from a temporary student job is the inclusion of an intentional learning agenda in the experience [5]. Therefore, to design a virtual or a blended work placement effectively, we need to start from a solid pedagogical basis. This

basis is found in the ideas underpinning work-based learning. The most important among these ideas are:

- *Learning through experience and reflection*

Experiential approaches to learning have developed from the work of Kolb [6] (the experiential learning cycle). This view on learning stresses the importance of a direct learning experience. It includes both theoretical and practical elements in the learning process. Experiential learning involves three phases [7]:

- preparation,
- action and experiences,
- reflection.

In work placements there needs to be a special focus on stimulating student reflection and self assessment regarding the learning process that is structured into the experience.

- *Learning in an authentic context*

In work-based learning, the learning experience starts from realistic, authentic problems. This approach emphasizes the importance of informal learning to develop skills and expertise in an authentic context.

- *Learning as a social process*

Any work experience is situated within a social context. The learner becomes a part of a new community whilst still retaining links with and drawing support from the educational community in which she/he operates [8]. This view has its basis in a socio-constructivist approach where learners build upon their previous experiences in interaction with peers and tutors to construct new knowledge and skills.

Work placements need to be designed according to these learning strategies in order to be successful. When organising virtual or blended placements the technology needs to be chosen and used in such way that the necessary learning processes are stimulated.

3.2 The different actors

There are always various actors involved in a work placement process. Within the higher education institutions we can distinct two groups:

- the administrative staff to support and organize the practical side of the work placement,
- the academic mentor, supporting the student's learning process and responsible for the end evaluation.

Ideally there is also a mentor appointed within the company who is responsible for guiding the student during the assignments and through the organisation's social and cultural aspects. Centrally in the work placement stands of course the student who aims to reach his/her learning goals, under guidance of his/her mentors.

3.3 The four phases in an internship

Looked at from a time perspective, we can distinguish 4 different phases in an internship. In each phase one or more different actors are involved (see 3.2) and new technologies can help to enable an optimal interaction between the different stakeholders. Every phase has its own attention points and issues.

The preparatory phase

In this phase the conditions for organizing a successful virtual or blended work placement are created. The higher education institution makes sure the necessary organisational procedures and technology are in place. Academic staff ensures the pedagogical approach is clear and understood. The placement needs to be properly integrated in the curriculum. This also includes the issue of accrediting the professional and the international experience.

In an institution driven scheme (where the institution provides the student with placement possibilities), a network between the institution and the related business world or organisations needs to be developed and maintained. An ICT supported environment can, for instance, be a virtual platform which enables university-industry networking. Companies or organisations can use communication tools such as video or web conferencing to interview candidate students.

Crucial in this phase is of course also good promotion of and information about the possibilities to participate in international virtual or blended placements. The possible merits here of, for instance, web technology do not need to be further explained. Important here is also that quality procedures are in place to ensure the educational possibilities of the placement, as well in an institution driven scheme, as in a student driven scheme (where the student actively searches for placement opportunities).

Before the work placement

In this phase the student has been assigned to a company or organisation and preparations need to be made to ensure a successful placement. This means in first instance the design of the concrete placement in line with the pedagogical foundations (see 3.1) of experiential learning in an authentic and social context. Issues that need to be considered here are:

- Setting clear learning goals and clarifying expectations of all actors,
- Making an agreement about the tasks at hand and deadlines to be respected,
- Defining the roles and responsibilities of the various actors during the work placement. It can also be a good idea to include peers in the feedback process: to be confronted with similar experiences of other students can act as an important motivator [9],
- Formulating a communication and feedback protocol for all actors,
- Selection of evaluation criteria and defining evaluation process,
- Preparative training sessions and material: preparatory virtual mobility actions for instance can offer support at a social, cultural and linguistic level as well as an introduction to placement related tasks. The impact of these preparatory activities on learners cannot be denied: they will be well-prepared, focused and more productive during their internship visit, which is in turn beneficial to the hosting company.
- Selection of supportive technology in function of the learning goals, the roles of the different actors, the concrete tasks etc.

Ideally most of these agreements, responsibilities and procedures will be part of a written agreement between all actors. Communication tools can also be used to discuss this agreement and for all actors to get to know each other.

During the work placement

During the placement the focus will of course be on the development of knowledge and skills through practical and authentic tasks. Next to discipline specific competencies the student will ideally also have the opportunity to work on generic skills like international, teamwork, social and communication skills. To stimulate this

learning process coaching and feedback from academic and company mentor are essential. All coaching activities also have to be in line with each other. New technologies enable a close contact (through synchronous and asynchronous communication) between the academic mentor, the company mentor and the students. Another form of feedback can consist of peer modelling. Here technology such as discussion forums or video/web conferencing can bring peers together to discuss their experiences and give each other advice.

Crucial to the learning process during a placement is also self-assessment and reflection by the student. Educational technologies such as e-portfolio or blogs can be used to stimulate and facilitate this.

After the work placement

In this phase evaluation is the central theme. Firstly there is the evaluation of the student according to the formulated criteria. Ideally the end evaluation or accreditation will be based on a joint decision of the company and the academic mentor; although the academic mentor will normally hold the end responsibility. Mostly, the student will also be asked to write a final report on the work placement, including a reflective self-assessment. Virtual Mobility activities can support the contact during the evaluation process but also when the entire experience is finished, Virtual Mobility can help sustain contacts between student and company.

The cooperation between higher education institution and the company/organisation should also be assessed. Strong points and future opportunities need to be identified. Problems or difficulties should be examined so they can be avoided in the future. If the cooperation was really problematic, the possibility to find other hosting companies needs to be looked at.

4 Pilot projects [10]

The EU-VIP partners will conduct in total 18 pilot projects. Most of these pilots will start in the months October and November 2010. Mainly for organisational reasons, four pilots have been conducted already. The general framework was not in place yet at the time of these pilots, but they were organised based on previous experiences of the partners with virtual and/or blended work placements.

4.1 Business Management: International Innovation Lab

Fully virtual placement – organised by Katholieke Hogeschool Leuven (BE) and Laurea University of Applied Sciences (FI)

In this pilot 11 students were asked to participate in market research for a foreign company. The 4 Belgian students conducted an analysis of the Belgian market for the Finnish company 'Rips' (food import). The 7 Finnish students made an analysis of a specific market segment (youth), commissioned by a Belgian newspaper 'De Standaard'. The students were also expected to develop ideas on market/product analysis together with their peers cross-border. To communicate and cooperate with the commissioning company and with the students abroad they used video conferencing, Skype, Sharepoint and email. The Belgian students also used an electronic self-assessment system (SIS tool, Work Placement Information System, <https://www.khleuven.be/sis/taal/en>) to reflect on their learning process by evaluating their progress regarding the achievement of previously formulated learning goals. This system was also accessible by the academic mentor of the students.

Before, during and after the work placement, students were asked to complete questionnaires about their expectations and experiences. After completion of these virtual work placements, the following elements were identified as very positive:

- The use of technologies like Skype and video conferencing is much more personal than communication via email. Although, we have to add that in the end the students thought there were too many video conferencing moments planned.
- The international context provided a good practice for language knowledge.
- Even though the placement was virtual, the students did feel that they had a chance to experience and learn from differences in (business) culture.
- The students considered the experience with working from a distance and in an international team as an important plus for their professional future.

As the biggest challenges met on the way, the students identified:

- Participants need to have a lot of technological skills before they can get started.
- Participants were dependant of the technology, which sometimes failed.
- Although the possibility to practice languages was seen as an asset, the language barrier sometimes also created misunderstandings and delays.
- The students experienced a need for very clear arrangements.

4.2 Business Management: Internship abroad

Blended placement – organised by Katholieke Hogeschool Leuven (BE)

Eleven bachelor students in Business Management undertook a work placement abroad in eleven different foreign companies. Via video conferencing they participated in seminars at their home institutions. These seminars took place together with their peers at home and were aimed at exchanging experiences regarding national and international work placement. This way the students at home had the opportunity to share the international experience. The students abroad were able to reflect better on the differences in business culture. Next to this the students also used an e-portfolio and an online self-assessment tool (SIS) to monitor their own learning process.

Again, students were asked to complete questionnaires before, during and after the work placement, about their expectations and experiences. From these questionnaires the following success factors for this type of virtual support for internships can already be deducted:

- All actors involved (in this case: students and academic mentor) need to be willing to make the necessary effort. Involvement of the company mentor is advisable.
- Detailed planning and clear instructions are necessary.
- Technical problems need to be avoided as much as possible.
- The motivation of the students depends a.o. on the nature of the activities they have to perform during the internship.
- Video conferencing moments need to be long enough and personal contact with the academic mentor is sometimes also required.

4.3 Work placement at a European Organisation

Fully virtual placement – organised by AEL, TietgenSkolen (DK)

One bachelor student in the business programme was asked to develop a registration and tracking system for an international conference organized by a European organization with its administrative office in Denmark. The involvement of the higher education institution was minimal. Communication mainly happened between company and student via email. After

evaluation of this pilot the following points were identified as success factors for a virtual internship:

- The assignment must be:
 - well defined and clear;
 - challenging for the student;
 - feasible within the given time space.
- Clear arrangements and procedures are necessary:
 - to set deadlines and milestones;
 - for the communication between student and company.
- The technology needs to be working and accessible.
- All parties involved need to be committed and motivated.
- The student needs to have the necessary meta-cognitive skills before starting the internship.

4.4 Work placement at the company “Jeros”

Fully virtual placement – organised by AEL, TietgenSkolen (DK)

Three students were supplied with work facilities (room, computers, telephone, internet) at school. They were obliged to sustain regular working hours and be present at their ‘office’ on a full time basis. The students were expected to make a thorough description and an analysis of a number of potential markets for a company called “Jeros”. Prior to the placement the students visited the company. Afterwards, communication between students and company mainly happened via email and telephone. Involvement of the higher education institution was limited to supervising the presence of the students.

In the end this placement was not very successful because the work delivered by the students was of poor quality and of no use to the company. The failure of this pilot though provides a lot of useful feedback about the critical success factors for a virtual internship:

- High student motivation is an absolute condition for success.
- Coaching from the students by a mentor (academic or/and from the company) is necessary and should not be limited to supervising presence.
- The technology used has an impact on the degree of involvement from the students.

5 Preliminary conclusions and reflections

The general framework (see 3.3) emphasizes the need for a careful design and planning of the virtual and blended work placement. Even though this aspect is without any doubt also very important in case of “traditional” work placements, the pilot projects show that this need is even stronger when Virtual Mobility activities are involved.

The goal of technology use to support or organise work placements, is to enhance the quality and possibilities. The pilot projects however indicate that tools can easily turn into a barrier when the participants lack in e-literacy or when the technology is not user-friendly and reliable. The availability of technology support before and during the placement therefore seems to be a critical success factor.

The nature of the assignment also plays an important role in the success of a placement. A task needs to be clear and doable within the given time. In case of work placements the tasks assigned to students are authentic, student motivation is likely to increase if this authentic task

is of real value to the company/organisation. In terms of difficulty, a good task is feasible and challenging at the same time.

Research has shown that face-to-face contact at some point or on some level is beneficial to the success of the activities, because it builds a feeling of responsibility. The results of the first pilot projects confirm the importance of the human factor. When it is not possible to meet face-to-face, the choice of technology seems to have an impact on the degree of involvement. A tool like video conferencing creates a much more personal interaction than for instance an asynchronous tool like email.

The absence or presence of the human factor also influences student motivation. Different pilots identify student motivation as an essential condition for success. As we described above, this motivation can be influenced positively by a careful design and clear agreements, by providing authentic and “good” tasks, by making sure the technology is an aid and not a barrier and by integrating human presence in the experience. Next to this, it is also important that students have a chance to acquire the necessary knowledge and generic skills before starting the work placement. Here a thought-through integration of the work placement in the curriculum and provision of additional preparative training are of paramount importance. Especially in a fully virtual environment the student needs to have the required meta-cognitive skills, i.e. he/she needs to be able to take control of his/her own learning process. The framework states that coaching and feedback are also important ways to enhance student motivation. The results of the pilots emphasise this thesis.

Not only the students need to be motivated. The pilots show that strong involvement of all parties (academic and company mentor) is advisable. Where the academic mentor usually sees (e-) coaching students as a part of his/her academic tasks, the involvement of the company mentor might be more difficult to obtain. Especially coaching from a distance requires a lot of effort and dedication. It will be necessary to show businesses what the added values are of making the investment to participate in a virtual or blended placement. This is an issue that requires further attention from the partners in the future pilot project.

In some pilots students did feel they were exposed to the organisation’s social and cultural aspects, in other pilots this was not so much the case. Based on our earlier conclusions we can suggest that the choice of technology and the overall design of the placement play an important role in realising this “organisational socialisation”. This is also an aspect the EU-VIP project will examine more closely in coming pilot projects.

These first conclusions already provide some valuable feedback for and confirmation of the initial framework. These results will be used as a starting point for further development and fine-tuning of the framework and the plans for future pilots. This way, the EU-VIP partners hope to present useful and well-grounded guidelines for organising blended and virtual international work placements by fall 2011.

Acknowledgment

EU-VIP is funded by the European Commission within the Lifelong Learning Programme.

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