

INDUSTRIAL PLACEMENTS – THE GLOBAL CONTEXT

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ABSTRACT

This paper seeks to explore ways of increasing the number of opportunities for students to experience work overseas and to investigate ways of sharing this experience more widely.

In a previous paper [1] the author highlighted the benefits of industrial training placements to all three participants namely the students, the institutions and the host companies. This paper seeks to review these aspects and in particular focus on the benefits to the student in terms of the development of a professional global attitude and a perception of the cultural and global differences in design practice.

The paper will in addition draw on student case study material as well as information from training placement companies in terms of their perceived and actual requirements with respect to student abilities, knowledge, attitude, interpersonal skills, practical skills and academic profile. Also included will be survey / interviews with key employers and proposals will be made as to how this information can inform and influence course design.

Keywords: Design Education, Cultural Interactions, Computer Aided Design, Design Representation, Design skills, Industrial Training

1 INTRODUCTION

For a number of years it has been apparent that students who have some sort of industrial training placement as part of their degree profile perform better in their final year studies than those following a full-time route. It has also been observed that those students undertaking a placement outside the UK have added an extra dimension and are better able to place their experiences in a global context.

In recent years it has been seen as beneficial for students following the MDes/BSc Industrial Product Design Degree at Coventry University to hold a 'Placement Seminar' in the first term of the returning placement students' final year, where they can share their experience not only with their peer group colleagues but also with the 2nd year students currently contemplating a placement and also 1st year students who want to get ahead of the game.

It is of course obvious that only a relatively small percentage of students will gain an overseas placement.

2 PLACEMENT EXPERIENCES

Over the past few years students of the Industrial Product Design courses at Coventry University have obtained placements in France, Germany, Holland, Italy, Australia, USA, India, Ireland and Hong Kong.

The placements are varied from the more overtly artistic styling opportunities with motor manufacturers and sports wear/equipment companies to those in the engineering/mechanical design part of the spectrum. Students have also worked in consultancies associated with the automotive and aerospace sector. These have been identified as a source of quality placements. Some of these placements have been quite exciting – bodywork design for World Championship Rally cars and work on the new Airbus project to name but two.

In [1] the author identified and highlighted the benefits of a work placement to the student, the placement company and the educational institution – these are précised below and extended in the light of more recent experience.

2.1 Benefits to the company

- Builds links with the University
- Provides opportunity to find suitable graduate employees
- Results in useful collaborative projects

2.2 Benefits to the institution

- Provides good feedback on the needs of industry
- Produces high quality contacts
- Enhances recognition for Product Design Courses

2.3 Benefits to the student

- Better equips them for the Final Year
- Enhances employment opportunities
- Can result in sponsorship
- Enhances recognition for Product Designers

Evatt & Thorpe [2] further discuss the benefit of a placement to the student in terms of improved quality of the final year project work. Lewis [3] suggests, in a study of students following the BSc Industrial Product Design degree course at Coventry University, that those who complete an industrial placement perform significantly better in their final year studies when compared with their peers who take the full-time route, i.e. 3 academic years with no sandwich year.

The author's recent review of the situation confirms that this is still accurate. The effect is so marked in some cohorts that all students electing to take a placement achieve a first or an upper second in the final degree classification with their non-placement colleagues likely to achieve, on average, one degree classification lower. These outcomes can be regarded as significant even when the likelihood that students taking an industrial placement are probably amongst the more motivated in the year group is taken into account.

In [4] the author identified a concern voiced by some companies that prospective placement students might lack expertise in the company's CAD software packages. This concern now seems to have all but disappeared with most being quite willing to take

computer literate students and give them some sort of training. In fact it is now probably the student who is reluctant to apply for a placement because they think that their skill level is inadequate. It is this latter kind of worry that is addressed at the Placement Seminar.

3 THE BENEFITS OF AN OVERSEAS PLACEMENT

All placements are seen to develop the students work placement skills but a placement overseas appears to give that little extra. It is perhaps that there is a greater commitment to this type of placement as it is at a greater distance from home or the University.

Students realise that globalisation has already and will in future increasingly affect their life and work opportunities. Learning another language on the hoof or at least experiencing another culture and its values first hand makes the student all the more valuable to future employers as well as developing an appreciation of the global economy.

These days the placement is a good learning environment for CAD and CAE packages. The students using such software packages, day in day out, quickly become proficient and aware of the commercial reality of timescales and manufacturing requirements. It has been noted that overseas placements in general seem to offer more than those in the UK in this regard.

For example many placements have given students the opportunity to become proficient in 3D CAD modelling as shown in Figure 1, to produce high quality graphical visualisations - Figure 2 and to be exposed to cutting edge technologies such as injection moulded ceramics - Figure 3.

4 THE PLACEMENT SEMINAR

One key aspect of the operation of the industrial placement system at Coventry University for students following the Industrial Product Design Course is the annual Placement Seminar. This is held in the autumn and provides an essential forum for returning placement students to share their experiences with their peers - colleagues who may have elected not to take a year of design experience outside the institution - and also to the current Level 2 students and the Level 1 students who want to gain an early insight into what gaining a placement entails.

These seminars are always something of a revelation! Students who were reluctant to take a placement or might have felt that their placement was unsuitable invariably speak in glowing terms about their experiences and the benefits that they perceive that the opportunity has given them. It is clear from the enthusiasm with which they speak of their experiences that there is rarely such a thing as a bad placement and the vast majority of students have found the experience extremely valuable in developing their personal and interpersonal skills as well as greatly improving their design and ICT skills. Additionally those on placement outside the UK claim that working in a different cultural environment and perhaps learning another language has added a further dimension to their personal development.

It is at this point that the majority of Level 2 students realise that they now have to write that CV and craft that mini-portfolio in order not to miss a vital opportunity.

Although it is still quite a small percentage of placement students who attempt to secure a foreign placement – circa 5% - it is significant in the way that the experience informs and motivates their peers.



Figure 1. A placement is a good opportunity to become proficient in CAD

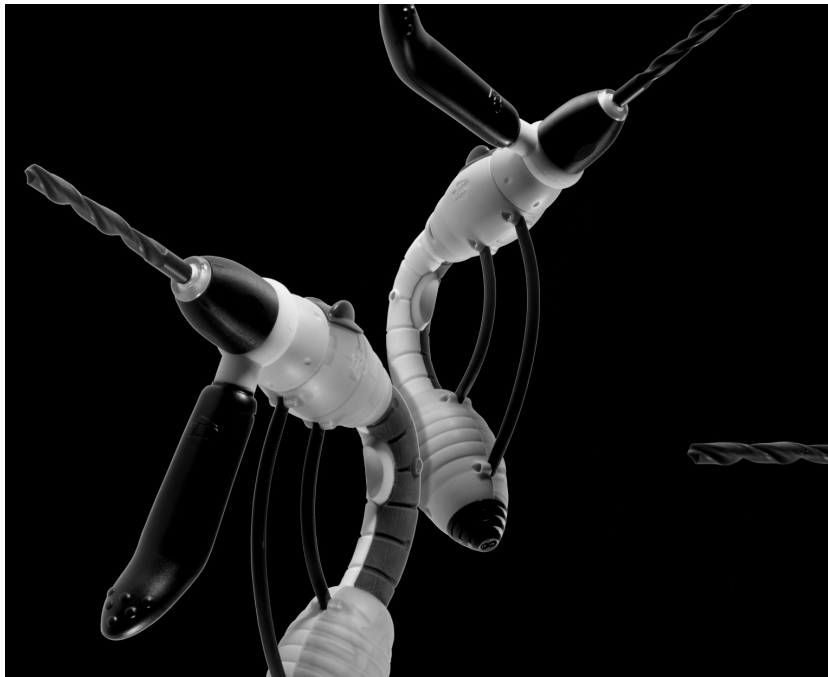


Figure 2. Students' graphical skills develop well



Figure 3. Placements give exposure to cutting edge technologies such as injection moulded ceramic

Overseas placements are seen by the students as a worthwhile opportunity to develop their skills. It has been observed that in recent years the number of students chasing overseas placements has increased and the competition is fierce.

5 THE EMPLOYER'S PERSPECTIVE

It is clear that overseas employer's are keen to employ UK design undergraduates. A survey of recent employers indicated that the reason was twofold. Firstly UK students appear to have readily useable design and computer/IT skills apparently not found in local students and secondly are seen as a useful asset in interfacing with the company's English speaking clients. To this end employers are often willing to provide regular flights home and cheap or even free accommodation. On the other hand the survey also reveals that salary levels for overseas placements are somewhat lower than UK levels. It can also be the case the length of placement can sometimes be shorter than desirable, particularly if a work permit is necessary to stay longer than 3 months as is the case in the USA.

6 CONCLUDING REMARKS

With the expansion of the EU it is perceived that many more placement opportunities will occur outside the UK particularly in Eastern Europe in countries such as Poland and Hungary.

It is becoming noticeable that more students are seeking placement opportunities abroad particularly in the fields of both product and engineering design. At every opportunity contacts are made, followed up and maintained by the University's Industrial Training office and by course tutors. Students are encouraged to contact companies on their wish-list directly. This latter approach has resulted in a surprising number of placements with high profile companies such as Audi, Reebok and Decathlon.

Coventry University is fortunate to have a strong population of students from Europe which is a further source of quality contacts.

Finally there is of course a negative aspect to this – for students on placements in far flung parts of the globe it is highly unlikely that they will have a personal visit from their placement tutor. To date this does not have been seen as a problem with regular email contact solving any problems as they arise. Those closer to home are a little more fortunate since as a result of cheap air travel and the increasing number of academic staff travelling Europe on recruitment exercises face to face visits are more likely to happen.

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