

UNDERGRADUATE LEARNING FROM PLACEMENTS (INTERNSHIPS)

A recent study examined professional work experience placements (internships) as part of an undergraduate degree programme. It sought to throw light on the nature of placement learning, on how it comes about, including what might promote or inhibit it, and on how learning from placement compared with learning at university. These matters will be considered below.

The research was carried out by Poppy Turner who had been a mature student, graduating in her forties. She had undertaken two six-month placements herself and later worked as a Placements Tutor. Poppy developed a keen interest in undergraduate learning, and placement learning in particular, prompted by students' comments such as the following:

- **'Learnt more in two weeks on placement than in the previous two years'** [at university].
- **'Fantastic learning experience.'**
- **'STUPENDOUS ... undoubtedly the best aspect of the whole degree.'**

A total of 70 graduates and undergraduates participated in this research and their experiences of higher education covered the period from 1994 to 2005. During the course of the study it became apparent that open questioning, which allowed students themselves to say (face to face or by email) what was important to them about their learning experiences, was more informative than questionnaires, where the researcher dictates the agenda. However, the huge volume of qualitative data which results from open questioning can, unless carefully analysed, be little more than a survey of students' opinions. The research project reported here was an analysis of students' perspectives of their undergraduate learning opportunities, while studying Molecular and Cellular Biology at the University of Bath, and resulted in a PhD thesis (Turner 2005) on which this brief article is based.

What is the nature of placement learning?

Placement learning was sometimes little more than the acquisition of skills and competences. Students gained skills related to the specific type of work they undertook on placement but also generic work-related skills such as time management, the ability to work as part of a team and improved IT skills. In addition, though, some students reported gaining academically in areas related to the subject of their degree programme. For example:

- [Doing a placement] **'Allowed me to build a much broader scientific knowledge base and brought a lot of things I had learnt into context'**.
- **'I gained a true insight into the professional world of science.'**
- Another student learnt to think more critically, e.g. **'Is this statement right? Was the experiment correct?'**
- **'Practical skills, approaches to experiments, calculation ability and problem solving all improved 100%. Learnt how to communicate scientifically ... Without [my placement] – I'm not sure how good a scientist I'd be.'**

This last comment came from a graduate who is now a post-doctoral research scientist; it suggests that her placement played a significant part in her development from student to professional.

Other students also mentioned the transformative effects that placements had on them. Many referred to their greater maturity and self-confidence. E.g. **'Helped me grow as a person, especially being out of the country ... I grew ten years in experience and maturity ... certainly a change to escape my old influences and really discover myself'**.

[How does placement learning come about? What promotes or sometimes inhibits it?](#)

The type of work undertaken on placement seemed to be the major influence on learning outcomes. Students whose work was routine, repetitive or 'menial' reported learning little:

- **'Tedious ... depressed me immensely ... didn't allow me to develop concepts and link biological information.'**
- **'Monotonous ... very frustrating.'**
- **'Needed more mental stimulation.'**
- **'I haven't really learnt anything ... just one method I now know ... same thing all day every day. I have no motivation to learn anything more about it ... You just think "What's the point?"'**

On the other hand, those who had their own projects or **'Work that had real purpose'** were enthusiastic about their learning:

- **'Working on your own project ... makes you think through what you are doing and why you are doing it.'**
- **'Had to trouble-shoot my experiments when they failed and learnt not only [biological] techniques but the theory behind them.'**
- Another student described his project as **'Challenging'** and **'Great fun ... overall experience was totally invaluable.'**
- **'I understand [my project] inside out ... it wasn't until I came on placement that I realised its massive importance.'**

It appears that work which students saw as worthwhile, and with which they engaged, was a strong promoter of learning while work seen as boring inhibited it.

Another factor which affected placement learning was the support available from supervisors and colleagues:

- **'My supervisor was excellent ... very enthusiastic about his research which helped to motivate me.'**
- Another student felt she benefited from **'One to one supervision ... someone there to answer my questions'**.
- **'A major point aiding my learning was the friendly atmosphere ... frequent interactions with colleagues definitely promoted my learning.'**
- **'Learnt a lot from listening to colleagues [it's] like doing GCSE Spanish then moving to Spain. You just pick it up subconsciously.'**
- **'It was a very relaxed atmosphere ... people are so friendly, it makes you want to go to work and do the best you can, not just for yourself but so you don't let the others in the team down.'**
- **'Have learnt so, so much since I have been here ... through working with truly talented and intelligent people who explain things in depth and detail.'**

There were also examples of contrasting situations:

- One student reported spending **'All day, every day on my own. There is nobody to talk to ... it was a shock'**.
- One student felt he was treated as **'Lab whore'** while working on mundane laboratory tasks for an hourly fee.
- Another experienced **'Bullying and harassment'**.
- One student reported that, although most of her colleagues were **'Lovely'**, her **'Boss was a nightmare ... all sweetness and light one minute ... really nasty and snappy the next'** and added **'My main task each day was to ... avoid my boss.'**
- Another said that her supervisor **'Was difficult to talk to and was often away. He refused to give me a project of my own ... I found myself less motivated to work for him.'**
- Yet another reported **'There was no kind of teamwork at all and even less communication. Group meetings were to bitch at each other'**. It is perhaps not surprising that this student went on to write **'Probably put me off science for life'**.

Under these conditions, students reported learning less than they might otherwise have done. Interestingly, the nightmare boss was a highly respected academic, working in a top university. The research institute where **'There was no kind of team work'** and **'Group meetings were to bitch at each other'** was also highly prestigious.

[How does placement learning compare with learning from university-based learning opportunities?](#)

Students often drew comparisons between their placement work and that at university. Their comparisons were usually favourable towards placements:

- **'Work here is far more interesting than the lab[oratory] work at uni[versity]!'**
- **'Nothing seems as complicated as I thought or as [university] practicals can make you think'** and **'Here [on placement] there is more thinking time, planning and understanding. [At university] you never really have time to get stuck into something as there is such a mass of lectures, essays, tutorial work and practicals ... you think you understand but, through not repeating it or not spending enough time on it, it doesn't sink in.'**
- **'At uni[versity] there was so much I needed to do that I rushed ... On placement, you start to understand and sit and ponder.'**

[Framework for analysis](#)

In order to analyse students' opinions, it was necessary to pose some important questions. They fell in four major categories as follows:

Which activity were students actually engaged in, in practice? Were they focussed on their work or something else, such as avoiding the boss? It was not enough to assume that the fulfilment of their placement work was the students' goal. In order to discover the actual object of their activities, it was necessary to ask the students about their placements, in general terms, such as *How was your placement? What is your placement like? Describe a typical day.*

What support did students receive and what messages were they exposed to? Did they have good supervision and encouragement, within a team of supportive colleagues, or were they largely ignored and left to get on with menial tasks as best

they could? Once again, the only way to reveal the true situation (which in one case included 'bullying and harassment') was to enquire into students' perspectives.

How did students see themselves and their roles in their placement situations? Students were willing and able to reveal their perceptions. Some saw themselves as valued team members; in stark contrast, one felt he was treated as 'Lab whore'.

What was the effect of the above factors on placement learning, as described by students? While it is relatively straightforward to assess skills and competences, it is more problematical to estimate personal development and transformational learning. However, we have seen (above) that students can be highly articulate when describing both the impact which aspects of their placements have on learning and the learning outcomes themselves. E.g. 'Learnt so, so much', 'Understand it inside out' and 'Learnt not only techniques but the theory behind them' or 'Haven't really learnt anything'.

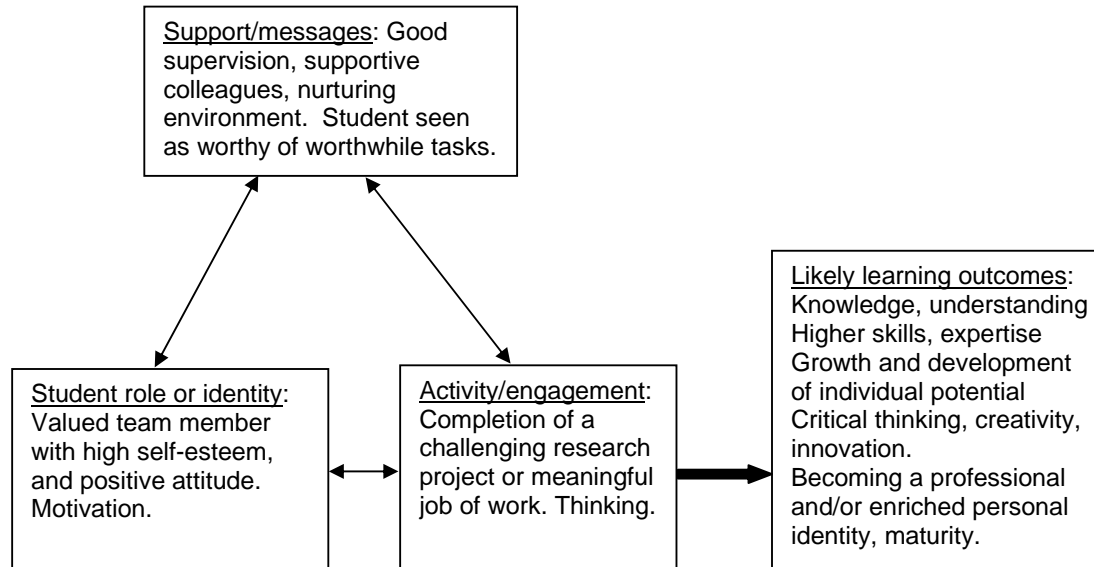
The last comment (above) points out the importance of entering into open dialogue with students, in a non-judgemental way, in order to reveal the actuality of placement experiences. In a formal assessment of the student's placement work, few undergraduates would admit to learning almost nothing - for fear of losing marks - yet it may be that the placement situation was the reason for poor learning outcomes, rather than the student. We need to know the detailed situation, in practice, if we are to avoid subjecting subsequent students to poor placements.

In conclusion, it seems that qualitative student data can be very informative about placement learning. Such data reveals that placements may vary widely in terms of their potential for learning. Those which can offer the student meaningful work or projects, with good supervision in a supportive environment, appear to have high learning potential and are likely to result in higher order learning. Those where the work is mundane, where supervision is poor or lacking, and where the student finds the atmosphere unpleasant or stressful, appear to have very little potential for learning and are likely to result in lower level skills and little increased knowledge.

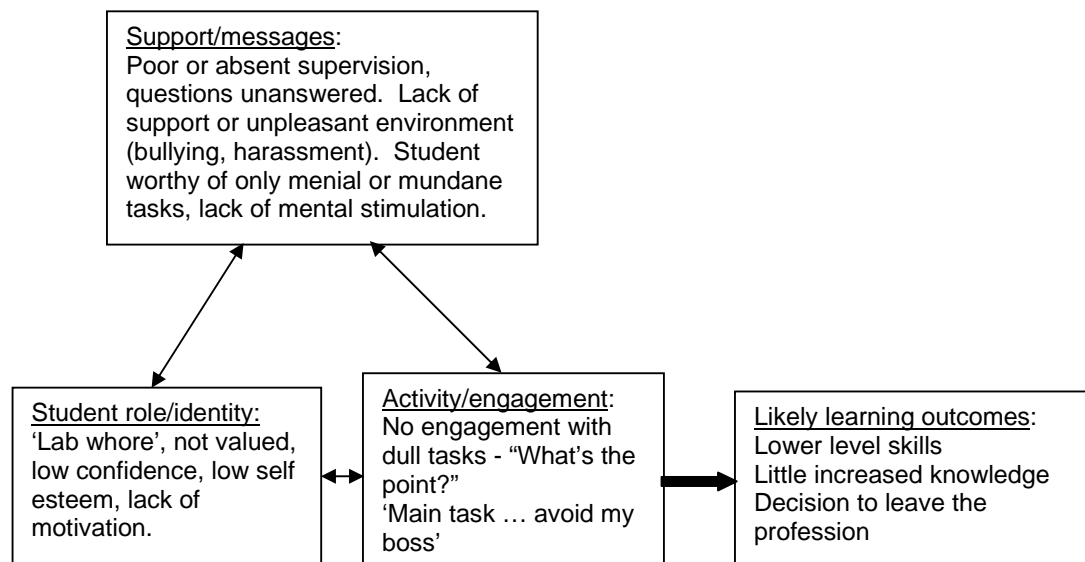
When placements were of high quality, in terms of their learning potential, then placement learning outstripped anything that was achieved at university and students reported learning 'More in two weeks on placement than in the previous two years!' and that placements were 'The best aspect of the whole degree – absolutely invaluable. STUPENDOUS!'

There are diagrams of contrasting placement situations over the page; these are loosely based on a first generation model of activity theory (see, for example, Daniels 2001).

The situation in placements where the potential for learning is high



The situation in placements where the potential for learning is low



References

Daniels, H. (2001). *Vygotsky and Pedagogy*. London: RoutledgeFalmer.

Turner, P. (2005). *Undergraduate learning at programme level: an analysis of students' perspectives*. PhD thesis. University of Bath.

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