

Experiencing entrepreneurship at Cambridge

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Abstract: Higher Education is increasingly central to the development of wealth and a knowledge-based society. But how can universities encourage entrepreneurship and help students to experience the realities of life in entrepreneurial organizations? In a pilot project, students at Cambridge University in England were exposed to both the theories and practices of entrepreneurship with project-based work placements in such organizations in the Cambridge area. This article summarizes how the scheme operated, the lessons learned and the achievements. Project-based work has benefits for both students and companies and offers an important bridge between academe and small businesses in particular.

Keywords: entrepreneurship; SMEs; work placement; Cambridge

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The rationale

The pilot project discussed in this paper sought to develop awareness of entrepreneurship in students at Cambridge University in England in the year 2000. In particular, it placed students in entrepreneurial companies in the Cambridge area so they could gain hands-on experience of working in such organizations. The project was run under the auspices of the National Centre for Work Experience (NCWE)¹ – then a subsidiary of The Council for Industry and Higher Education (CIHE) – with day-to-day management from the St John's Innovation Centre at Cambridge. Funding was provided by the UK Department of Trade and Industry and the international bank Lloyds TSB.

In various White Papers and key speeches the UK government has set out its vision for a more entrepreneurial, innovative and wealth-creating society (see, for example, DTI, 1998; DTI/OST, 2000; Blunkett, 2000). Higher education is placed centre-stage as a vital agent in the creation, dissemination and application of the knowledge that lie at the heart of a knowledge-based

society. Higher education is also seen as central to the development of people who have the necessary skills, aptitudes and attitudes to be innovative and help to create wealth.

To some extent the vision is based on the example of the West Coast of the USA, where the rich soup of entrepreneurs, venture capitalists, business-oriented academics and networks of large and small companies, offers conditions that are not easily found in the UK. Indeed major changes of attitude on the part of central government and its agencies (for example, to help change the UK's risk-averse culture and lack of incentives for taking risks) are needed if such a society is to be realized. Nor do all UK higher education institutions have the mentality or capability to develop an entrepreneurial outlook in their staff and students. Many are, however, taking major strides to relate more closely to their local businesses, establish enterprise units and spin-off and start-up companies (Hague and Oakley, 2000), engage in knowledge transfer, and embrace the employability and key skills agenda.

Various funding schemes, including the government's Science Enterprise Challenge and the Reach Out/Innovation Fund, support these activities.

There are, however, areas in the UK where that rich soup already exists, and the Cambridge region is cited as a leading example (Segal Quince Wicksteed, 1985 and 2000).

Many question whether entrepreneurship can be taught, especially by academics who are not themselves entrepreneurs. They also question whether the necessary attitudes can be developed and imparted in an academic environment that is exhorted to be innovative and entrepreneurial on the one hand, while on the other it is constrained by various agencies to be risk-averse and subject to continual intervention and micro-management.

The project discussed here was based on the belief that it is possible to offer insights, advice and exposure to the conditions that make for successful entrepreneurship through linking theory, workshops, practical information and hands-on practical experience in an entrepreneurial environment. The assumption was that if students could be exposed to the realities of entrepreneurial businesses through working in them, their awareness of the necessary conditions for success would be enhanced and their fear of the unknown would be reduced. At the very least they would be made more aware of what it is like to work in a smaller company and hence they might be less averse to joining one following graduation. Such exposure might persuade more people that learning can be used to create wealth rather than just to get a job.

While the clustering and networking of small companies can enable them to overcome the inherent disadvantages of size and limited resources (Porter, 1998; Mitra, 2000), it does not follow that they automatically benefit from proximity to a major centre of knowledge and brain-power – their local university. The cultures of small and medium-sized enterprises (SMEs) are very different from those of higher education institutions (HEIs), while the mutual difficulties of making contact and the weaknesses of existing intermediaries mean that relationships are often not made even though they might well be of mutual advantage (CIHE, 1997)

However, students on work placements can be a vital bridge between these two worlds. They can expose SMEs to what modern students can do and the skills they can bring with them. They can solve problems and develop opportunities when the SME might not have the resources to do so. They can add considerably greater value to the small company than the cost of their employment. In some cases they can free the entrepreneur to think about the performance of the business and the longer-term strategy it needs. The SME

might well, as a result, be persuaded to recruit a graduate.² This in turn can help those regions with a graduate deficit to retain the graduates they produce, thereby raising their knowledge and skills base. Finally, the student can open doors back to the university, and enable others to offer teaching, consultancy and knowledge transfer opportunities.

Specific aims

There is plenty of theory about entrepreneurship and many articles are written on the subject (see, for example, Gibb, 1996 and Johnson, 2001). Students, however, also need to hear it as it really is from entrepreneurs. They need to appreciate the various ways of accessing start-up capital, understand the process of writing a business plan and learn about risk minimization and exit strategies (not least so that the fear of starting a business can be reduced). Successful entrepreneurial role models can offer advice, while recent graduates can note the pitfalls and hard grind that the successful may have forgotten. Some of this sharing of experience could be done via the Web, but there is no substitute for hearing and questioning at first hand. Ultimately, students need actual experience through work placement.

The three key ingredients of the programme were thus defined as:

- theory (available to students from a variety of sources);
- workshops on many of the key themes underpinning entrepreneurship (combined with talks from prominent entrepreneurs); and
- project-focused work placement with entrepreneurial companies in the greater Cambridge area.

The Cambridge area was chosen because of:

- the enthusiasm of the Vice-Chancellor, Professor Sir Alec Broers (a CIHE Council member);
- the availability of clusters of entrepreneurial companies of various sizes;
- the proven networking ability of the St John's Innovation Centre (SJIC) and its enthusiasm to evolve an existing programme (the Shell Technology and Enterprise Programme, STEP) from its focus on 8-week placements in the long summer vacation; and
- the existence of a dynamic Cambridge University Entrepreneurship Centre.

In any student placement scheme, if business benefits are to be maximized and SMEs in particular persuaded to participate, students should be available at times that suit the businesses rather than at times that suit

themselves or their academic tutors. For a company to say that it has a project that is well suited for a student only to be told that none will be available for many weeks (or even months) is not much use to either company or student. Hence one of the project's aims was to pilot the possibility of offering students at weekends and in the Easter vacation as well as in the long summer break. The reluctance of academics to countenance students undertaking formal placements supported by the university during term-time evenings ruled out that additional option.³ SJIC liaised with the academic Heads of Departments to ensure they were content with the operation of the scheme. The former Director of the STEP scheme, Liz Rhodes, provided general advice and liaised with NCWE on the provision of NCWE material and the capturing of the experiences and the lessons learned.

Given the relationship to the DTI's competitiveness agenda, the DTI offered some financial support. An approach was also made to Lloyds TSB. Every SME has a bank and it is in the interest of all financial institutions that their clients should be successful. If a student can solve a problem or develop an opportunity then success is more likely to be achieved. If the bank contact can offer the customer advice on how an opportunity might be realized through a student placement at a highly competitive rate compared with specialist consultancy, then that is good relationship banking. The potential therefore exists for the company, the bank and the student all to benefit. Lloyds TSB generously supported the scheme and their Area Managers were closely involved throughout.

The process

The programme was launched on 24 February 2000 at the Judge Institute of Management Studies in Cambridge. Representatives from more than 20 companies attended, along with between 30 and 40 students. Many contacts were made and projects were identified.

Before the launch of the project, a Website had been set up not only to publicize the programme but also to simplify the registration process. Between March and the end of July 2000 a steady stream of students registered on the site: at the end of July, 76 students had expressed an interest in undertaking a placement. The response from companies was equally encouraging, and, also by the end of July, 47 companies had registered offering between them more than 50 projects.

The quality of projects on offer was excellent and they were far-ranging. They included:

- leading-edge software development;
- engineering research and development;

- market research;
- management information systems;
- Website technology; and
- electronics.

The matching process was undertaken by the St John's Innovation Centre team under the leadership of one of the authors (Ruth Puddick), as it was felt that there needed to be a suitable vetting procedure in place. If too many students targeted the more exciting projects, for example, difficulties would arise. There were weekly reviews of the students and projects on offer. Students were paid a training allowance of at least £150 per week by the companies.

In addition to the student and company registration Websites, companies were also able to download a specimen contract letter. They were encouraged to use this letter and to forward a copy by fax to SJIC once it had been signed by both the company and student. A Health and Safety checklist was also available through the Website, and companies were strongly encouraged to complete the form and return copies to SJIC. The NCWE *Student Guide* and *Company Guide* plus the student *Skills Tracker* CD-ROM were made available to all participants. Given the encouraging response to the launch, it was hoped that a number of students would take up placements in the Easter vacation. However, the majority of them opted for the summer and only two students were placed during the Easter holidays.

During the first quarter of 2000, a wide range of lectures and presentations was made available to students from the Cambridge University Entrepreneurship Centre Programme. At these sessions some entrepreneurs spoke of their own experiences with financiers and accountants, and others gave lectures on a wide range of subjects, including starting up businesses, business planning, marketing, etc. Every student received an induction pack delivered either to the University address or host-company. The folders contained business starter packs provided by Lloyds TSB, information from NCWE and details of the entrepreneurial Websites run by Cambridge University. Additionally, SJIC arranged for students to have access to an online training facility through Fontal, a tenant company on the Innovation Park specializing in Web-based business services for entrepreneurs, businesses, government and education users. Fontal generously agreed to provide certain modules free to the students on placements, not only during the summer but also when they returned to the University in October.

Achievements

The aim was to place 50 students in companies over the Easter–October period. During that time 52 undertook projects while six students started three companies.

SJIC also helped three companies to access students directly from university departments and four were placed as a result. The scheme thus exceeded the placement objectives set.

Questionnaires were sent to all participating companies. From a response rate of 50%, all reported 100% satisfaction with the scheme and all wanted to take part in further programmes

The design of the Website proved effective in attracting both companies and students, but it was not well suited for the purpose of passing on students, as there was no facility to download student details and e-mail them to the companies. Faxing details was time-consuming, expensive and did not always evoke a response from the companies.

The induction packs were welcomed and overcame the practical difficulty of gathering together sufficient students to justify an induction day.

The lectures and workshops were very popular, while the training arrangement with Fontal provided an even better and more flexible facility that was likely to be of benefit to the students not only during their time at Cambridge but also in their future careers.

The total cost of the programme was £23,500. Even though there were start-up and other one-off costs, this represented good value for money, at under £500 per placement.

Lessons

While the principal aims were met and some of the outcomes were particularly encouraging (one company offered its student a job and he was still with the company after six months), as with any pilot project processes had to be modified to reflect changing circumstances.

It was not possible to achieve the intended flexibility in the provision of students. This was a result in part of the heavy and compressed academic programme at Cambridge, the competing attractions of sporting and social events, the high proportion of engineering students enrolling, and the fact that they were sitting exams directly after the Easter vacation and, not surprisingly, chose to study during that period. (In a larger scheme operated with the support of Lloyds TSB in London, greater flexibility in the placement of students was achieved.)

In the event, a number of companies did not participate despite their initial interest. In some cases the students were thought not to be suitable (many of the projects were highly technical and some students were only in their first year), while other companies changed the focus of their requirements. Some students

also pulled out of the programme, while others allowed offers to accumulate and decided which to accept only at the last moment.

The project showed that an efficient communication process is crucial for finding and securing placements. Most companies responded rapidly to e-mails, but less so to faxes. Ideally an electronic process for matching students would speed up the process, though the need for personal contact to ensure the suitability of the match would still be necessary. A good CV seemed to be vital in securing an early placement. Early follow-up contact to the company to ensure that details had been received and that action was being taken would have helped to reduce uncertainty for all involved.

SJIC concludes that early-stage entrepreneurial businesses and students constitute a combination that needs more administration time than many groups!

Ensuring the support of senior academics (including the enthusiastic support of the Vice-Chancellor) was important in seeing that students were not placed in an invidious position, and that the learning value of the placement and associated training and workshop/lecture series was maximized. The advantages of online provision of much material have already been mentioned, but the benefits of face-to-face encounters with real entrepreneurs should not be underestimated. A more permanent mentoring facility would be beneficial.

The importance of having a well-networked intermediary organization (SJIC) that was respected by and sympathetic to both companies and academics was vital. Many universities lack such a centre; yet without SJIC's established links and reputation and the experience of its commercially aware team, the scheme would not have been successful. The ability of Lloyds TSB managers to appreciate the potential benefits to the bank and their clients was also a relevant ingredient.

An important lesson has been learned at the conceptual level. It is well known that SMEs are seldom aware of the opportunities or the potential benefits that might flow from closer networking with higher education institutions (CIHE, 1997). In one of the surveys carried out in 1998 of many hundreds of SMEs, only a fraction (2.8%) claimed to have engaged in collaborative activities with higher education (Matlay, 2000). It was illuminating that, even in the Cambridge area where the existence of the University was assumed to be a major reason for their location, the companies had generally never taken a student on work placement. Some had relations with the University, but equally many seem to have located in the area because of the existence of a relevant skilled workforce and other high-tech companies – an area, in other words, where the benefits of clustering, networking, sharing experiences

and solutions, and so on would be achieved. The Entrepreneurship Programme provided an important link between the University and the companies. It may have opened the door to closer future working relationships.

In an EU transnational project (Université-Entreprise Europe, 1998), work placements were considered to be important in improving students' awareness of the realities of the world of work, and helping to bridge the gap between higher education and SMEs. A follow-up consultation with students conducted by SJIC suggests that this scheme has achieved that aim.

The future

The Cambridge Entrepreneurship Centre has now appointed a full-time Director and a programme of events was undertaken in the academic year 2000/01. The Centre and SJIC have been sufficiently pleased with the Experience Entrepreneurship Programme that they intend to build on the achievements to date by running a similar programme every year.

There are also opportunities to develop the process in other universities. We hope this article will help others learn from the Cambridge Entrepreneurial Experience.

Notes

¹For further information on NCWE, contact Liz Rhodes. E-mail: l.rhodes@csu.ac.uk.

²See, for example, ASET (2001), and information from the Careers Services Unit (CSU) at www.prospects.csu.ac.uk. The review of the STEP placement scheme by David Storey at Warwick Business School and of the Liverpool experience by Peter Hawkins are particularly relevant.

³Although the Cambridge University term is more compressed than most, many students do undertake part-time paid employment to support their studies or standard of living. Why should they not be helped to undertake worthwhile projects with achievable outcomes that would widen their skills and better equip them for subsequent employment – including self-employment? See DfES (2002).

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