



ISSN: 1363-9080 (Print) 1469-9435 (Online) Journal homepage: http://www.tandfonline.com/loi/cjew20

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To cite this article: Pádraig Gallagher (2015) Graduate transition into work: the bridging role of graduate placement programmes in the small- and medium-sized enterprise workplace, Journal of Education and Work, 28:5, 461-480, DOI: 10.1080/13639080.2013.820261

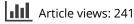
To link to this article: http://dx.doi.org/10.1080/13639080.2013.820261



Published online: 25 Jul 2013.



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Graduate transition into work: the bridging role of graduate placement programmes in the small- and medium-sized enterprise workplace

Pádraig Gallagher*

Letterkenny Institute of Technology, Letterkenny, Ireland (Received 11 May 2012; final version received 11 June 2013)

This research looks at the role of graduate placement programmes in bridging the gap between higher education and the small- and mediumsized enterprise (SME) sector. The research design and methodology used in this study was exploratory, in-depth and qualitative in nature. The research took the form of a multiple case study and focused on seven graduates with an engineering, science or technology background who have worked with SMEs. The graduates were employed by companies participating in the Fusion programme, a graduate placement and knowl-edge transfer programme currently running in the Republic of Ireland and Northern Ireland (the UK). The study shows that graduate placement programmes such as Fusion can help graduates in their transition to the SME workplace, but the impact can vary according to the individual placement context. Implications for policy and future research are considered.

Keywords: graduate placement programmes; graduate transition into work; the SME sector and graduates; the Fusion programme

Introduction

There has been a considerable interest in the capacity of the small- and medium-sized enterprise (SME) sector to help to absorb the increasing number of graduates entering the graduate labour market. The SME sector is recognised as important to employment growth, economic development and wealth creation in many countries. Initiatives, mainly government led, have been initiated to strengthen the linkages between higher education (HE) and the SME sector, to increase graduate employability and to ease the transition for graduates to the sector. The broad and diverse nature of the SME sector, together with limited research, means that it is unclear what impact such initiatives are having.

This multiple case study looks at how the Fusion programme, a graduate placement and knowledge transfer programme (KTP) currently running in

^{*}Email: padraig.gallagher@lyit.ie

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the Republic of Ireland and Northern Ireland, helped seven graduates in their transition to the SME workplace.

The study is a pilot study and will allow for policy observations to be made on how graduate placement programmes can help graduates to integrate into the SME workplace. As well as being of interest to education administrators, this paper will be of interest to SMEs intending to employ graduates, government agencies and others involved in supporting the SME sector.

HE and the SME workplace

The increasing focus on the world of work and the changing graduate labour market has raised much debate about formal learning and the capabilities and employability of graduates in the workplace. In addition to developing intellectual capacity and the provision of theoretical and discipline knowledge, HE is increasingly incorporating skills and knowledge, e.g. communication and interpersonal skills, into the curriculum that can be transferred and utilised within and across different work contexts, e.g. within different roles and industrial sectors. There has also been the development of courses/modules at undergraduate and postgraduate level, e.g. entrepreneurship, innovation and business management that aim to increase awareness of the business sector. There is also an increasing emphasis on providing graduates with work placement opportunities as part of their courses.

Despite the attempts by HE to provide the human capital required for the industrial world, it seems that the relationship between HE and work can be fragile and contentious and academic institutions face a difficult challenge in satisfying the different knowledge needs of academia, professions and the workplace (Brown, Collins, and Duguid 1989; Eraut 2004; Knight and Yorke 2002; Lave and Wenger 1991; Saunders 2000). The transition for a graduate to the SME workplace can be particularly challenging and there can be a significant mismatch between employer and graduate expectations. The environment, objectives and priorities, culture, social interaction and activities of the SME sector differ to the supportive and structured HE sector where the graduate comes from.

The SME sector is of increasing importance to the graduate labour market offering potential employability to graduates. For the purpose of this research, the European Commission's (2003) definition of an SME, which came into use in January 2005, is used. This differentiates between:

- Micro (under 10 employees and turnover of not more than €2 million or balance sheet total of not more than €2 million),
- Small businesses (under 50 employees and turnover of not more than €10 million or balance sheet total of not more than €10 million) and

• Medium businesses (under 250 employees, and turnover of not more than €50 million or balance sheet total of not more than €43 million).

The SME sector is a complex and differentiated sector. It can be classified according to a number of factors including size, product, service, ownership, control, age and stages of development and customer base (Walton 1999).

Small and micro businesses, which represent the vast bulk of the SME sector, have a number of general characteristics. The management, authority and control are normally in the hands of the owner manager or small management team (normally drawn from family members) or a manager recruited by the owner(s) to run the business. The SME owner manager/ manager has to manage a range of functional areas and has few trained functional management specialists to draw upon. Most SME managers are under considerable pressure with managing day to day issues and have little time to develop long-term plans (Expert Group on Future Skills Needs 2005; Jones and Tilley 2003; Walton 1999). In addition to limited management skills, the lack of a skilled labour presents a significant barrier to the development of SMEs (Jones and Tilley 2003; Observatory of European SMEs 2007).

Public policy has had a preoccupation with helping SMEs to grow, particularly high commercial potential, knowledge intensive, innovation led high technology SMEs; however, survival is the dominant business issue for most SMEs (Hendry, Arthur, and Jones 1995; Jones and Tilley 2003; Storey 1994).

We are largely dependent on a number of small-scale studies to provide evidence of the potential for and the nature of graduate employment in the SME sector (Holden, Jameson, and Walmsley 2007). We can conclude from these studies that there has been a relatively low up-take of graduates by SMEs (Little, Braun, and Tang 2008; Pearson and Perryman 2001; Pittaway and Thedham 2005). The low up-take can be attributed to a number of factors including the limited understanding and awareness of graduates by SME employers (Hart and Barratt 2009; Hawkins and Winter 1996; Mukhtar, Oakey, and Kippling 1999; Roffe 1996), the negative attitude of owner managers towards the abilities and employability of graduates (Hawkins and Winter 1996; Jones and Tilley 2003; Roffe 1996), the lack of resources and the financial package to attract, employ and support graduates (Johnson and Pere-Verge 1993; O'Gorman and Cunningham 1997; Westhead 1998).

In turn, graduates may also have reservations about accepting employment in SMEs which contributes to the low rate of graduate employment. Graduates lack knowledge about the SME sector (Hawkins and Winter 1996; Mukhtar, Oakey, and Kippling 1999; Roffe 1996; Williams and Owen 1997), 'and view training and employment prospects as better in a larger organisation' (Mukhtar, Oakey, and Kippling 1999, 426). In addition, HE career offices emphasis on providing graduates for traditional employers e.g. larger corporations and public service, also contributes to the lack of awareness that graduates have of the SME sector (Bowen, Lloyd, and Thomas 2004; Purcell, Pitcher, and Simm 1999; Williams and Owen 1997).

SMEs are likely to rely on ad hoc or direct entry recruitment (Connor, Hirsh, and Barber 2003) and to depend on informal networks/personal contacts/word of mouth and newspaper advertisements as their main recruitment strategy (Nene College of Higher Education 1996; Stewart and Knowles 1999; Williams and Owen 1997). Interviewing is the main selection procedure used by SMEs. This is in contrast to the traditional route (milk round) of recruiting new graduates into employment in larger firms, where the better graduates are recruited annually using lengthy recruitment selection processes and are offered induction and formal training programmes for jobs with clearly defined career paths.

Unlike larger companies, SMEs have limited resources available to help graduates in their transition to the workplace and to provide structured training and learning support (Pittaway and Thedham 2005; Rajan, Chapple, and Battersby 1998; Yorke 1999). Similar to other employees, the learning opportunities for graduates are mainly short-term and non-formal such as learning from experience, attendance at exhibitions conferences or trade fairs and reading trade publications (Observatory of European SMEs 2003; Rajan, Chapple, and Battersby 1998; Walton 1999).

Steering the relationship between HE and the SME sector

Concerns about the low up-take of graduates by SMEs have led to the development of graduate placement programmes to bring HE and the SME workplace closer together and to overcome the perceived market failures. Graduate placement programmes can be viewed as an extension of the human capital perspective on HE, where HE broadly exists to meet the needs of industry. Many SME graduate placement initiatives are government led or promoted by regional development agencies and provide 'bridging experiences' (Saunders 2000, 1014) and 'bridging tools' (Bonamy, Charlier, and Saunders 2001, 303) to graduates to ease their transition to the workplace.

Ireland has had graduate placement initiatives such as Techstart, the Technology Partnership Programme and the Fusion programme. There have been similar developments in the UK including the Teaching Company Scheme, the STEP Programme (placements for graduates during summer vacation), the Talent Scotland Graduate Placement Programme and the KTP.

There is little published information on graduate placement programmes. From the promotional literature available on such initiatives, we can identify a number of broad characteristics. These initiatives aim to overcome the barriers to graduate recruitment and employability in SMEs. They also provide business experience to graduates and allow them to develop their personal and technical skills leading to job offers. In addition, the employment of graduates on such programmes also aim to alleviate the perceived management and skills deficits in SMEs and provide sources of knowledge transfer which in turn helps SMEs to grow and remain competitive. Such programmes normally involve the graduates working on defined projects e.g. working on new products/services, market research and systems development. Some programmes e.g. KTP also provide support structures such as internal and/or external mentors and provide formal training to graduates as well. The programmes normally have dedicated management and administrative support.

Although initiatives such as graduate placement progammes are welcome, 'it remains less clear if there is sound evidence emerging as to their impact' (Holden and Jameson 2002, 280). The issue is complicated as there are practical difficulties in accessing SMEs and establishing their needs, as Yorke explains:

The larger employers have a number of fora in which their expectations of graduates can be expressed, but smaller enterprises find – for obvious reasons of size and dispersion – some difficulty in joining in discussions of how they can draw on, and contribute to, the outcomes of HE. (Yorke 1999, 175)

The Fusion programme

The Fusion programme is a graduate placement and KTP that is currently being run on an all-island basis in Ireland (Intertrade Ireland 2005a, 2005b). Fusion was launched in 2001 and more than 450 companies have participated in the programme to date. The programme was developed by Intertrade Ireland, a cross border economic development agency for the Island of Ireland. Prior to initiating the programme, Intertrade Ireland commissioned a report (PA Consulting Group 2000) to define the need for such a programme and to ensure that the programme incorporated elements of best practice from other graduate placement programmes throughout Europe.

The programme involves the recruitment of a graduate by an SME to work on an agreed technology-based project driven by the company's development needs. The graduates are also supported by an academic institution during the course of their project, 'in essence, a dynamic, tri-partite arrangement is formed between the company, the university or college and the graduate, all working towards the aim of a joint business project' (Intertrade Ireland 2005a). Projects range from 12 to 24 months in duration. The progamme has an overall steering group with members drawn from development agencies and industry to manage and provide overall direction to the programme. Day-to-day project management is contracted to a private consultancy company.

The first stage in forming a partnership is for the project management company to recruit an eligible company with a suitable project. The next step is to identify and select a suitable academic institution to partner with the company. As this is an all-island programme, the academic institution which the SME is partnered with, must be based in the opposite jurisdiction to the SME i.e. an SME in Northern Ireland must partner with an academic institution in the Republic of Ireland or vice versa. When both are in place, they jointly prepare and submit a formal application seeking support for their project. The process involves advertisements in national newspapers, detailed application forms, the short-listing of applicants and interview by an interview board. The recruitment and selection process is managed by the project management company for the Fusion programme in all cases.

If the proposal is approved by the Fusion assessment panel, a recruitment campaign is launched to find suitable graduates for interview by the company and academic institution. The recruitment campaign for the graduates is designed to recruit high-calibre graduates for the companies and in most cases specify that graduates applying for the positions hold a minimum of a 2.1 degree.

As part of the programme, the SMEs have to provide internal supervisory support to the graduates. The selected academic institution provides an academic to support an individual graduate during the course of the graduate's project. The role of the academic in most cases is to provide technical and personal mentoring to the graduate. All projects have a designated consultant from the project management company to manage the relationship and support the project. Each project also has a small steering group consisting of the company, the academic, the graduate and Fusion project manager, and meet quarterly to monitor the project progress.

The graduates can also benefit from a structured training programme leading to a postgraduate management qualification to ensure that they can develop their business and management skills. The graduates follow the course on a part-time basis as they complete their employment period with the company. The course involves attendance at five two-day residential formal learning sessions covering a range of modules including project and time management, technology transfer, marketing and business development, product development and world class manufacturing, innovation and entrepreneurship.

Intertrade Ireland provides 100% funding towards the academic costs, 50% towards the graduate salary (company provides the remaining 50% of the salary) and 100% of related graduate training and development costs.

Methodology

The research design and methodology used in this research is qualitative and flexible in nature and utilises a multiple case study to provide an in-depth exploration and description of how the Fusion programme, referred to above, helped seven recently qualified graduates to transition to the SME workplace. A common problem in case study research is defining the boundaries of the case (Miles and Huberman 1994; Stake 1995; Yin 2003). In this study, the cases involved the individual graduates and were bounded by the company which they are/have worked in and the time they have spent working in the company; in these cases, it was between 18 months and two years. The graduates differed in terms of their academic qualifications and the courses they had studied, roles within the companies and their supervision (see Table 1). The research focused on graduates with an engineering, science or technology HE background.

The graduates and companies involved in this research were selected as it was felt they would provide an in-depth explanation and understanding into the role of graduate placements programmes in the SME workplace. It was also felt that the graduates and companies selected would allow for meaningful comparisons involving a cross case comparison of the findings.

The practical issue of gaining access to the graduates and companies was a key factor in selecting the cases for study. To assist with this issue, the organisation running the Fusion programme made the initial introduction and ascertained if the companies, graduates and academics would participate. Some companies did not agree to participate in the research. After agreeing the first two case studies, the remainder was selected by the researcher during the research process following reflections on the previous case studies to ensure that a good range of graduates and companies were selected for the research. The case study companies were located throughout the Republic of

Graduate	Education	Role in company	Company superviser
А	Diploma in Engineering	To help improve the efficiency of the plant and the manufacturing process	Company Manager
В	Bachelor in Computer Science	New software development	Project Manager
С	Bachelor in Engineering	To develop the technical, engineering and design side of the business and product development	Owner Manager
D	PhD Degree	To improve the operations of the lab and new product development	Owner Manager
Е	Bachelor in Science	New product development	Company Manager
F	Bachelor in Food Technology	To develop and improve systems, and new product development	Owner Manager
G	Bachelor and Masters in Science	Operations management	Owner Manager

Table 1. Graduate information.

Company	Sector	Years in existence	Employee (Graduate) Nos.
А	Manufacturing	6	30(3)
В	Information and Communication Technology	6	20(20)
С	Manufacturing	4	13(1)
D	Biotechnology	3	17(17)
Е	Manufacturing	25	47(7)
F	Manufacturing	12	24(0)
G	Manufacturing	10	15

Table 2. Company information.

Ireland and Northern Ireland. On confirmation of the participants' agreement, and before visiting the sites, the participants were contacted to explain the research aims, questions and the procedures to be utilised for collecting data and to seek their approval to audio tape the interviews.

The study was restricted to companies employing between 10 and 49 employees which, as earlier seen, is one of the key criteria for classifying a company as a small company. The companies (see Table 2) broadly operated in the manufacturing, information technology and biotechnology sectors and were established for at least four years. Five of the companies (Companies A, C, E, F and G) operated in manufacturing environments and had little prior involvement in graduate employment and for most this was their first attempt at seeking to recruit a graduate. Company B and Company D were service-based companies and both companies regularly recruited at graduate level.

The interview was the primary data collection method, with documentary evidence providing additional data. The interview in this study took the form of a semi-structured open-ended, face-to-face, one-on-one interview which is useful for focusing and capturing informant's perceptions on a particular phenomenon. A key strength of the research was that the Fusion companies presented an opportunity to capture three perspectives: *the SME, the graduate and the academic* involved in each case study.

The interviews were audio-taped to ensure a permanent record and this also allowed for better concentration during lengthy interviews. The interview recordings were fully transcribed. The interviews with six of the graduates and the company supervisors were carried out in the individual company premises on the same day. The seventh graduate was interviewed off-site. The academics were all interviewed in their place of work i.e. at their HE institution.

Findings and discussion

Four of the manufacturing graduates, Graduate B1, and Graduate D1 were recruited to work on new projects that were developmental and additional to

the normal activities of the companies e.g. product development, process improvement, implementing regulations and introducing new technology to the companies. The seventh graduate, Graduate G1, was also recruited to improve systems and to help with new product development but her primary role was to manage the day to day operations in the factory.

The impact of the programme on the graduates' transition to the workplace will be considered under the following headings: planning, recruitment and selection; internal supervision and appraisal; academic support and mentoring; and business and management skills and knowledge.

Planning, recruitment and selection

Graduate placement programmes try to overcome some of the barriers to graduate recruitment in the SME sector. Published literature would infer that financial burden is a barrier to graduate recruitment by SMEs (e.g. Johnson and Pere-Verge 1993). The company supervisors explained that the support package, particularly the financial support, offered by the Fusion programme for the employment of the graduates contributed to their decision to recruit the graduates particularly in the case of the manufacturing companies.

The findings indicate that the Fusion programme had also helped to formalise and provide a structure to the companies in the planning, recruitment and selection of the graduates. The manufacturing-based companies had not recruited graduates or employees in such a detailed manner prior to the employment of the graduates. The limited and informal nature of the recruitment and selection process in the manufacturing companies was in line with the expected recruitment practices of SMEs e.g. word of mouth and local advertisements as outlined in other studies (e.g. Nene College of Higher Education 1996).

The knowledge and skill levels required by employees in Companies B and D meant that the recruitment and selection process in the companies was more thorough than the process in the manufacturing companies. Company B was also using psychometric testing as part of their recruitment process.

The company supervisors felt that the recruitment process had been carried out in a transparent, rigorous and efficient manner:

It was very fair and open and the advice that I was given was quite sound. (Company Supervisor F2)

The structure provided to the planning, recruitment and selection process allowed the companies to clarify the graduates' roles:

We set clearly defined tasks and goals for the graduates. (Company Supervisor A2)

It helped me to focus on what I wanted. (Company Supervisor G2)

At the same time, it was evident from the manufacturing companies' perspective that there was some resistance to the adoption of the recruitment practices as part of their normal recruitment practices. In particular, there was a feeling that the bureaucracy attached to the recruitment and selection was time consuming and challenging for a small company:

the amount of paperwork that was involved was crazy. (Company Supervisor A2)

And, questioned whether they could recruit staff like this again:

at the same time, it wasn't the easiest thing to just turn around and do it that way. (Company Supervisor G2)

Company Supervisor E2 was concerned that the entry point, a 2.1 degree, was high and that they might have missed other possible candidates that were less academically qualified but would also have been suitable for the role. Academic B3 had a similar concern and wondered if:

we had missed one or two that otherwise we might have interviewed. (Academic B3)

The lack of knowledge and understanding of the SME sector by students and graduates are seen as a barrier to graduate recruitment in the sector (e.g. Hawkins and Winter 1996). The benefits of the programme and the employment stability which the programme offered were also major factors in the graduates' decisions to seeking employment with the companies. The graduates indicated that the detailed advertisements and promotion of the benefits of the Fusion programme had a major bearing on their decision to apply for their jobs. The graduates also expressed satisfaction with the recruitment process. Graduate D1 was surprised by the fact there was only 10 people in the company and:

that the hiring of one individual would be so important to a company. (Graduate D1)

Two of the graduates had an opportunity to visit the factory and to have an in-depth conversation with the company manager and this helped them in their decision-making process and provided them with a better understanding of what was expected of them:

everyone gets a very good gut feeling very quickly and they would soon know if there was going to be a problem. (Company Supervisor G2)

Internal supervision and appraisal

Similar to other graduate placement programmes, the Fusion programme's requirement for formalised internal supervision for the graduates had the potential to help them to transition to the workplace and to alleviate the lack of organised support normally associated with the small business workplace (Pittaway and Thedham 2005). With the exception of Graduate B1, where supervision was provided by one of the two company project managers, the graduates' internal supervisors were the SME owner managers/managers.

The management of the manufacturing companies largely rested with one individual i.e. the SME owner manager/manager. Although they were available to help, these individuals were heavily involved in day-to-day operational issues limiting their time to work with the graduates. The graduates' interactions with their company supervisors were mainly informal and driven by the graduates' needs:

I often see the graduate running around the floor after me trying to chat with me and I am trying to do something else, and you have to say 'sorry I have to leave you, I will be back in a second' and you run away and then something else comes up. There is a lot of that, but then again that is the way the company is structured and it is hands on for everyone. (Company Supervisor F2)

There was also a danger of the graduates, particularly in the case of the manufacturing graduates, drifting from their work to help with more immediate day-to-day working needs:

You could come in here in the morning and have a set idea as to what it is you have to set about doing, but you get pulled around the place as well and you have to address other areas as and when they arise. (Graduate A1)

Small companies are often very busy and graduates can get pulled into jobs that may not part of their remit. (Academic F3)

The manufacturing companies had a small number of personnel employed in a technical or supervisory capacity. Therefore, in addition to limited management support, the technical knowledge and expertise that was available to support the manufacturing-based graduates was also limited. The graduates had to initiate the support themselves from others who were often busy. As Graduate G1 explains:

we didn't have an engineer. If there were breakdowns, the majority of times I had to try and fix the machine myself. (Graduate G1)

In addition, as the graduates' work was new to the companies, much of the technical knowledge and expertise, particularly the desk-based work relating

to their project, was dependent on the graduates developing the knowledge and expertise themselves.

Graduate B1 found it difficult to get time with management and support for his project. Graduate B1 also expected more direction and technical guidance for his work and he had to initiate most of the contact with the project manager himself. The graduate's project manager had to manage and work on a number of other projects that were competing for his time, limiting the time he had to spend with the graduate:

Again, it can be difficult, when he is busy with projects of his own. (Graduate B1)

Graduate D1's interactions with his company supervisor (the owner manager) were informal but the graduate also had regular weekly meetings with his company supervisor where they could discuss problems and the graduate could receive feedback on his work. The graduate expressed satisfaction with the support from the company supervisor:

I just think he has really good leadership ability. He has a tendency to be there when he is required, let that be from an emotional or personal or work viewpoint. He is very approachable to all staff. (Graduate D1)

Graduate D1 could draw on the technical expertise of the owner manager and some key members of staff. In addition, he also attended and participated in 'weekly lab meetings' and intermittent 'business meetings' (Graduate D1) where he had an opportunity to discuss his work and get direction from the owner manager and others.

It was also a requirement of the Fusion programme that the projects and graduates' progress and performance were reviewed and formally appraised every quarter. This involved a formal meeting where the graduates presented their work and progress to date and where issues and problems were discussed and feedback given. The management of the company, the academic and the management of the Fusion programme were present for these meetings. The graduates found these meetings useful as it helped them to reflect on the project and the related work and tasks. The appraisals also allowed them to see progress, receive feedback and to build their confidence:

It provided me with a deadline to get work completed. (Graduate E1)

It allowed me to keep them up to date and to thrash out any problems that I was having. (Graduate G1)

The companies were also positive with the meetings:

the three month meetings and presentations was a good way of recapping on what has been done and to see if the milestones had been achieved. (Company B2)

Academic support and mentoring

As already mentioned, some graduate placement programmes, e.g. the KTP, provide academic support to graduates to help them to overcome some of the perceived support deficits in SMEs for graduates. The graduates in this study were also allocated an academic mentor to help them in their transition to the workplace. One would expect that the academics' knowledge of graduates would place them in a good position to support the graduates. The findings indicate that there was a mixed reaction to the academics' role.

Apart from the formal quarterly meeting, where the company superviser also attended, the interaction between the academic and graduate was largely informal. The graduates felt that the academic had a minor and peripheral role in their learning. They attributed this to a number of reasons including, not meeting often enough and difficulty of contact due to the geographical distance between the graduate and academic. The general feeling was that the academic provided a good sounding board as a person to run things by for the graduates and companies:

I think his role was more important in the early days. It was important that he was there to answer any questions for me or tell me where I could find the answer to questions. His role probably waned as I became more in-meshed in the company. I was doing more and more work that was not relevant to him. (Graduate D1)

I don't think there was enough contact. A lot of the time we were singing from different hym sheets. (Graduate B1)

The company managers also indicated the limitations of the academic's role although they acknowledged their help in the recruitment process:

He has not contributed a lot to us except encourage us and say 'yeah you are on the right track'. I think the positive thing I have to say about the academic is that he identified the needs of the company very quickly. In our case he identified that what we needed was a design engineer as opposed to putting an engineer on the floor to improve efficiencies. (Company Supervisor C2)

To be honest the academic was not being fully involved in the project and we seemed to be having to recap on where the project was a lot. Because he was not really hands on with the full project, the focus and tasks ahead always had to be redefined to the academic. (Company Supervisor B2)

In some cases, the companies and graduates had the benefit of utilising the facilities of the HE institution where the academic worked:

It was very useful. No company could ever have the experience and equipment they have up there. We were lucky in that the academic had a lot of previous experience. He was able to get graduates to test the materials for us as well and that was something we would't be able to do ourselves. (Company Supervisor A2)

The academics also saw their role as supportive and providing a sounding board for the graduate:

It is really a mentoring role so that the graduate can talk to me about what he is doing outside the company confines and I can advise him on various bits and pieces. (Academic D3)

It was largely a problem definition, problem solving, project management type role and generally acting as a mentor to the candidate, someone he could talk to outside the working environment. (Academic B3)

Some academics were conscious of their own professional development:

My objective from day one was to learn and be involved as much as was necessary and to make it worthwhile doing the journey up and down the country. (Academic C3)

Business and management skills and knowledge

All the graduates accepted the opportunity to undertake a postgraduate diploma in management at a third level HE institution in Dublin. Although some graduate placement programmes offer formal training and development to graduates during their placement, the postgraduate diploma was a unique opportunity for the graduates to develop their skills and knowledge. The postgraduate diploma aimed to address the perceived business and management skills and knowledge deficits in graduates entering the SME workplace and to address the limited opportunities for graduates to engage in formal learning in the SME workplace (Pittaway and Thedham 2005; Rajan, Chapple, and Battersby 1998).

As the graduates' academic background was in engineering, science and technology, most of the knowledge and concepts delivered as part of the postgraduate diploma in management were new to the graduates. The graduates were positive in their responses to this course:

It was a different type of learning experience for me coming from an engineering background to do a business diploma – different style of lecturing, not technical, far more personal, provided a different outlook. I found that very interesting and good for me. (Graduate C1)

but they found it difficult to apply the knowledge to the workplace:

I would struggle to find some kind of example to say, 'yeah, it was helpful'. Once you step out of the class room into the workplace it's hard to bring what you've learned with you. (Graduate A1)

I have not had the opportunity to apply it yet. But hopefully, there will be more of an opportunity over the next few months. (Graduate C1)

The difficulty that the graduates had in using the business and management skills and knowledge gained in HE also raises questions about the transfer and relevancy of the knowledge provided on the course. Perhaps, the knowledge was not specific to the SME workplace or the graduates needed more involvement in the business and management aspects of the companies in order that they could apply the knowledge.

The company supervisors showed little awareness of the course that the graduates were undertaking and seemed to see it as a requirement in the Fusion programme for the benefit of the graduate rather than for the benefit of the companies:

He said a large part of it was very useful I don't remember him saying anything negative about it but I didn't spend a lot of time talking to him about it. (Company Supervisor D2)

I didn't get involved with it at all. I let him work away with it himself. I knew it was part of the thing to give him something out of his 18 months, I think it was some management or project management course. (Company Supervisor E2)

In some instances, there was some tension with the graduate having to leave work to attend the course and to prepare assignments:

I wanted him to go to other exhibitions and things like that and the time wasn't available because that was a two-day thing every so often. I think it was good but I hadn't planned for it, Inter-trade Ireland hadn't planned for it and it sapped all our resources when it did happen. (Company Supervisor A2)

As was the case for other employees, additional opportunities for the graduates to engage in external formal learning were limited in the manufacturing companies and in Company B and were mainly driven by and focused on the companies' needs. According to Company Supervisor G2:

She would have found courses and she would come to me to have a look at them. If I thought they were worthwhile yes, if I thought they were not worthwhile then No. So it was just what was best for the company at the time. (Company Supervisor G2)

Although facing similar financial constraints as the other companies, Company D had a positive approach to external learning opportunities. The employees in the company were encouraged to keep up to date with their field and to share knowledge with others, and Graduate D1 participated in this activity:

You would be encouraged to go out to a lunchtime lecture in the City Hospital or local University in an area that might be of interest. I go to different research groups and weekly meetings to pick up on what kind of research is happening in key areas that we were interested in so I would absorb some of that and then we would give presentations around the year. If one or two groups are working on a project that may be of interest to the rest of us we give a 15 or 20 minute presentation just so everyone is aware of it. (Graduate D1)

Recommendations

A desirable outcome of graduate placements programmes is that graduate employability is enhanced and that graduates are offered permanent employment. Five of the seven graduates in this study were successfully retained by their companies when their initial employment period had finished. As the manufacturing-based graduates developed and completed the projects they were initially employed for, they became increasingly involved in the day-today work and took responsibility for key business functions; e.g. production, purchasing and quality. A sixth graduate was coming towards the end of his initial employment period and it was evident that he would be staying with the company after the initial project was completed. The seventh graduate was also coming towards the end of his initial employment. It did not appear that the graduate would be retained by the company. The graduate also had an open mind about staying after the completion of the project and indicated that he would have a preference to work in a larger company.

The study shows that graduate placement programmes such as Fusion can be enhanced and the following tentative recommendations are made:

- (1) The financial support offered to SMEs to employ graduates, although important, should not take precedence over the need for SME owner managers/managers to develop a clear rationale for and commitment to the recruitment and support of graduates.
- (2) The particular circumstances of an SME, in particular their ability to support a graduate, need to be accounted for when placing a graduate in a company. It was evident from the case studies that the owner mangers had limited time to spend with the graduates. Where support structures are weak and/or the project is challenging, extra support should be provided either internally within the company; e.g. by an individual other than the owner manager or by a second supervisor or from the academic partner institution. Where SMEs have limited experience of employing graduates, they should be provided with awareness and training to enhance their understanding and knowledge

of graduates. Those accepting the role of internal mentor should be offered training in workplace mentoring.

- (3) The role and work of the academic mentors should be clarified and structured to ensure that they can provide support for the graduates and companies for the duration of the project and to ensure greater integration with the company.
- (4) Where academics have limited experience of mentoring graduates on work-placement, they should be offered training in workplace mentoring. The technical expertise of the academic should be carefully considered to ensure that it fits with the need of the company and graduates. The role of the academic mentor is particularly important in the graduate's learning where internal support for the graduate is weak. The academic primarily provided a bridging role for graduates to transfer their knowledge to the workplace. However, as the workplace provided valuable learning opportunities for the graduates, the role of the academic can also be enhanced by providing them with the task of formally capturing and assessing the learning and knowledge development of the graduates during their work with the companies.
- (5) The level of interaction and communication flows between the graduates, the academics and the SME owner managers/managers should be strengthened and they should meet regularly together to discuss progress. This is particularly important where the company support for the graduates is weak and the project is challenging.
- (6) Formal learning opportunities, e.g. postgraduate courses offered to graduates, should be tailored to meet the needs of the SME sector and should be relevant and beneficial to both the graduate and current company. These programmes can also be enhanced by linking them to the graduates' immediate roles and practices. The promoters of graduate placement programmes such as Fusion that offer formal learning opportunities also need to increase awareness and commitment from SME owner managers/managers and graduates to formal learning opportunities.
- (7) Although it is highly desirable that graduates are retained by SMEs after they complete their initial period of employment, careful consideration should be given to the roles that they are given to ensure that their potential is maximised. In particular, graduates should continue to act as catalysts for innovation and change within the companies.
- (8) The unique cross border dimension to the programme meant that the academic institution providing the support to the graduate and the SME had to be located in separate jurisdictions i.e. the Republic of Ireland and Northern Ireland. This meant that in some cases, the distance between an SME and supporting academic institution hindered interaction between the parties e.g. in one case there was a 300 mile distance between the academic institution and SME. Consideration

should be given to relaxing the cross border element and allow SMEs to work with the academic institution best place to support them regardless of jurisdiction.

(9) Policy-makers should work with SMEs to ensure that they continue to follow the practices; e.g. recruitment and planning that were introduced as part of the Fusion programme and to develop workplaces that can support graduates.

Conclusion

The study adds to our knowledge on how graduate placement programmes can help graduates to negotiate the transition to the SME workplace. The study showed that graduate placements programmes such as Fusion can help to bridge the gap between HE and the SME sector, increase graduate employability and help graduates to negotiate the transition to the SME workplace.

Graduate placement programmes such as Fusion can be regarded as a catalyst for innovation and change and a source of new knowledge within companies. The Fusion programme impacted on the graduates' transition in four key ways: planning, recruitment and selection; internal supervision and appraisal; academic support and mentoring and the provision of business and management skills and knowledge.

However, bridging the two sectors is not simple and the study confirmed that the impact of graduate placement programmes on the transition of graduates to the workplace can vary according to factors such as, the nature and complexity of the graduates' projects, the ability and commitment of the academic, attitude of the owner and ability of the companies to provide mentoring support, the nature of the relationships and interaction between the graduates and the academic. This means that such programmes need to be sensitive to individual company contexts, needs and expectations when placing graduates and allocating academic mentors to support graduates in the workplace.

There are a number of particular aspects from this research than can be researched further and form the basis of future proposals. In particular, more in-depth studies are needed to see how the findings from this research are replicated in other Fusion projects and other graduate placement programmes. The motivation of the academics who work on graduate placement programmes and the degree that it informs their teaching and professional development is an area that has little research to date. The preparation of graduates for employment in the SME sector and their ability to transfer knowledge also requires attention as does the learning processes and socialisation of graduates in the workplace.

The findings will interest SMEs planning to recruit graduates to the workforce. The findings are also relevant to HE institutions and graduates interested in seeking employment in the SME sector. The findings will also be of relevance to other agencies that offer or are planning to develop initiatives to strengthen the linkages between HE and the SME sectors.

Notes on contributor

Pádraig Gallagher completed his PhD in Educational Research at the Lancaster University. His current research interests include graduate employability and academic/industry linkages. He would like to acknowledge the cooperation and support from Intertrade Ireland, in completing this research.

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