

**Education and Training for Innovation in SMEs:
A Tale of Exploitation**

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ABSTRACT

The European Commission (EC) is anxious to increase the innovation, and hence the competitiveness, of small and medium-sized enterprises (SMEs) in the depressed regions of the European Union (EU). To this end, the EC funds education and training for these firms, arguing that education and training will produce the desired innovation. In the north of England, the Yorkshire and Humberside Universities' Association (YHUA) was entrusted to provide appropriate education and training for the region's SMEs. In the year 2000, the YHUA asked the authors to analyse the effectiveness of this provision. The analysis concluded that the universities providing education and training services benefited from the scheme, rather than the participating SMEs. This paper stands back from the basic analysis and considers why this was so.

KEYWORDS: education; training, YHUA; innovation; policy

INTRODUCTION

The paper focuses on the provision of education and training for small and medium-sized enterprises (SMEs) by the Yorkshire and Humberside Universities' Association (YHUA), a grouping of twelve universities and colleges of higher education in the north of England, funded for this purpose by the European Social Fund under provisions to aid depressed regions with Objective 2 status. The assumption of the YHUA scheme was that higher level education and training for the employees of SMEs would provide these SMEs with the resources they require for innovation. With more innovation, they would become more competitive, creating more jobs and more wealth in the region.

The plight of SMEs attracts the interest of governments everywhere, and governments everywhere intervene on market failure grounds. In this case, there was a specific policy supposition that the unaided market will not propel SMEs to provide higher

level education and training for their employees, that SME employees will not provide this education and training for themselves, and that government must consequently intervene. The very nature of the sector - huge, scattered, volatile, diverse - together with the range of problems it faces, make any single, uniform intervention unlikely to be successful. Indeed, so vast is the sector that gauging any impact of government intervention is always likely to be problematic (see Gibb, 1996).

Rather than attempt any sort of evaluation of the YHUA scheme, this paper seeks to build on an analysis of information flow in SME, undertaken for the YHUA in 2000 (Macdonald *et al.*, 2001). First, the paper considers, as the YHUA scheme and the European Social Fund did not, the reality of innovation in SMEs. It then looks at YHUA provision of education and training in the light of this reality. The paper finds few benefits in terms of innovation in SMEs. The paper's concluding section searches elsewhere for benefits.

INNOVATION IN SMEs – POLICY AND PRACTICE

Rothwell identifies innovation policy as the link between the abstraction of science and technology policy, and the cold reality of industry policy (Rothwell, 1986).

Where SMEs are involved, perhaps the crucial link is between policy of any sort and cold reality. For instance, a simplistic view of SMEs is still common among policy makers who are capable of seeing SMEs simply as nascent large firms that should be exploiting innovation to realise their growth potential. SMEs, it would seem, have no business being small.

"Companies that introduced new technologies at least once a year were three times as likely to forecast an increase, or rapid increase in turnover, than those that never introduced new technology." (Marsh, 1996)

Of course, many managers of SMEs have no ambitions at all to manage large companies (Reid, Dunn, Cromie and Adams, 1999), and the economy is dependent upon the part that SMEs play in it - as SMEs (Rothwell, 1989).

There is a plethora of schemes by which the UK government affords assistance to SMEs. Many of these schemes are intended to help by boosting SME innovation and hence, so the argument goes, their competitiveness. For instance, the Teaching

Company Scheme (TCS) encourages graduates to work in industry so that they may transfer technology from university to firm (see Tiler and Gibbons, 1991; Senker and Senker, 1994). About 90 per cent of the firms participating in the TCS are SMEs.

“The mission of TCS is to strengthen the competitiveness and wealth creation of the UK by the stimulation of innovation in industry through collaborative partnerships between the science, engineering and technology base and industry.” (Department of Trade and Industry, TCS leaflet, June 2000)

This linear assumption that innovation results from transferring the information from what is often termed the ‘knowledge base’ to the firm is fundamental to many of these schemes. Behind the management speak of the Regional Economic Strategy for Yorkshire and Humberside lies the same assumption. The strategy is to:

“... create Centres of Excellence clustered round universities to increase the commercial exploitation of higher education’s research base.” (Yorkshire and Humber Regional Development Agency, nd, p.4)

Unilink, one of the programmes funded by the EC to assist the region’s SMEs, is justified in a similar, though less literate, way.

“UNILINK is a university lead [sic] project developed to help companies solve their technical and design problems using the expertise of the regions [sic] universities and research base.” (*RIS Newsletter*, 12 May 2000, p.2)

There is actually very little evidence to substantiate this model of innovation. Indeed, there is considerable evidence that innovation is unlikely to be produced in this way. Information for innovation comes from a variety of sources rather than from a single ‘knowledge base’, it is transferred in a variety of ways, and transfer is an interactive process involving the exchange of information rather than just its one-way flow from those who know to those who do not (Macdonald, 1998; Lybaert, 1998).

Innovation, and perhaps particularly innovation in SMEs, is complex. It is also the product of serendipity and happenstance as much as managed and controlled process. Yet policy often retains an uncluttered, linear view of innovation. Why this should be is not hard to deduce: it is convenient to be able to justify input in terms of output, to relate resources in to innovation out. So, policy makers and politicians have an interest in preserving the fiction of a linear innovation process, and in ignoring evidence that programmes based on the notion tend to fail (Culkin and Smith, 2000).

The many EU programmes to assist SMEs seem especially prone to failure (Mulhern, 1995; Dannreuther, 1999).

Also keeping faith with the linear model of innovation are those to whom the model attributes a seminal role in innovation. This obviously includes scientists and engineers, but also the institutions employing them. Thus, universities have much to gain from acceptance that the innovation of SMEs is the product of a managed, linear process. This belief was never tested in the YHUA scheme: trust in the linear model of innovation and in the performance of its major actors allowed YHUA administrators to let mere participation in the scheme indicate innovation. The success of the YHUA scheme was judged not in terms of innovation, but of numbers recruited.

“The information you provide will not be used to reassess grant, it will be used merely as an indicator for us as administrators to assess how we stand as a regional project in terms of achieving targets.” (YHUA memorandum, 18 July 2000)

And so, the more participation in the YHUA scheme, the more innovation could be assumed to result:

..... we are in the process of organising a large event to celebrate and disseminate the huge progress made by the regions [sic] universities in addressing SME skill shortages and access to higher level skills by employees of SMEs in the O2 [Objective 2] areas.” (YHUA memorandum, 4 August 2000)

The reality of innovation in SMEs can be at variance with the rationale of programmes to increase this innovation. The evidence is that many SMEs are already innovative. They have to be innovative to survive. Their problems lie elsewhere, the solutions frequently confounded by the burdens borne by SME managers. Basically, SME managers are far too busy coping with a wide range of immediate demands to give much attention to less pressing matters. There is little opportunity to stand back from the fray. Thus, their horizon is limited, their view of the world restricted. The views of SME managers participating in the YHUA scheme are presented in italics throughout the paper. On this matter, they were as one: a neat and ordered view of more education and training leading to more innovation is in serious conflict with the hectic workstyle of the SME.

As a small company, and 'hands on' it's difficult to take time to obtain higher qualifications or study at home, like, IT, e-business, 'computer-related' studies. We operate 24/7/365.

We would like to develop and expand our staff knowledge and qualifications but as a small company it is very difficult to spare personnel through normal working hours and the expense can be prohibitive.

Education/training and innovation are important but they are expensive to provide for employees, both in course fees also in lost time (output) which small firms in a competitive market find very hard to justify.

According to a recent Department of Trade and Industry (DTI) survey of innovation in SMEs, nearly a third earn more than half their turnover from their three largest customers (Marsh, 1996). The typical SME is isolated, which is presumably why SMEs perform so much of their own R&D, and look to their own resources for development. Inevitably, these resources are limited and often inadequate. The result can be frustration, not just with failure in innovation, but also with government exhortations to succeed that are based on a linear interpretation of the means by which SMEs innovate. Managers of SMEs were generally less convinced that education and training led to innovation than the providers of the education and training. Indeed, providers were apparently so convinced of the value of their product that they took little interest in just what subjects were covered in the education and training they provided. Providers seemed to assume that anything the 'knowledge base' cared to supply would generate innovation in SMEs, if only their employees could be recruited. The assumption was not shared by managers of SMEs.

My experience is that of a huge void between education/training and innovation.

My experience is that the link – education and innovation is tentative. Innovation thrives in business cultures which allow room for this.

Innovation is seeing a need/niche and filling it – I do not believe you can be educated to innovate.

Whilst education may assist in researching or implementing innovation, it is not necessarily required for innovation.

THE YHUA SCHEME

The Yorkshire and Humberside Universities' Association (YHUA) was formed in 1993 by the vice-chancellors of the region's eight universities and four higher

education colleges to provide a forum to promote the contribution that the higher education institutions (HEIs) make, individually and collectively, to regional GDP and employment, and to extend the contribution of higher education to regional development. The YHUA office and secretariat were based at the University of Leeds. In all, some £6 million has been provided by the European Social Fund for the region's HEIs to provide courses and programmes for business through the YHUA (*Unilink News*, 2000: 4).

Analysis of the YHUA scheme involved surveying participating SMEs. The intention of the survey was to determine whether the higher level education and training provided did contribute to the innovation of SMEs in the Objective 2 areas of the north of England. After appropriate preparation and piloting, and interviews with a sample of SME managers, questionnaires were sent to SMEs that, according to providers, had participated, or were still participating, in the scheme. Participants were actually employees of SMEs, enrolled in the scheme as individuals. In fact, SME managers played no part in the scheme at all beyond ensuring that their firm satisfied eligibility criteria, unless they happened to participate as individuals. The direct and immediate beneficiaries of the scheme were those who received money from the European Social Fund to provide education and training. It struck several SME managers that there was no failure at all in this particular market.

Too many 'providers' as you call them [with] no commercial awareness and commercial cost pressures.

Many providers of education and training services kept detailed records of the courses they provided, but no records of precisely who had received their services, which posed problems for the analysis when a survey list was required. Only when names and addresses were deemed to have commercial value did providers care enough about who received their services to compile lists, lists that they then kept secret from other providers. Based on available lists collected through the YHUA itself, some 794 questionnaires were posted in October 2000 to SMEs with employees who were, or had been, participating in the scheme. A similar number of questionnaires (800) was posted to other SMEs in the region, their addresses being procured from a commercial database. These were not known to have been involved in the YHUA scheme.

The industry sectors of the comparator group were chosen to match those of the SMEs involved in the YHUA scheme. There were 15 of these: automotive; biosciences; chemicals; construction; design; electronics; engineering and materials manufacturing; environmental industries; financial services; food; freight; medical; multimedia, software and publishing; printing and printed packaging; and textiles and clothing. Sectors were intended, as much as circumstances allowed, to provide samples of SMEs from both high and low technology areas (e.g., electronics and textiles). Although the survey adopted the customary definition of a SME as a firm with fewer than 250 employees, the vast majority of SMEs in this sample had fewer than 50 employees.

Despite considerable effort to encourage SMEs to complete and return the questionnaire, the response was rather poor, little more than 16 per cent overall. Time did not permit the sending of reminders, but these would probably not have yielded many more returns. The SME sector is notoriously hard to survey and responses are often low, even when there is real interest in the subject under investigation. There was limited interest in higher level education and training, at least as a discrete issue. Many SME managers in the region saw little point tackling a skills problem in isolation from the other obstacles to innovation in SMEs (see Baldwin *et al.*, 2001: 28, 53). In consequence, these survey results must be regarded as no more than illustrative and indicative; they are not statistically significant.

The link between innovation and education/training for small firms like ours also has a financial aspect – if we are doing well why change, if we are doing poorly how do we pay!! Catch 22.

Overall, some 210 usable responses to the survey were received, 134 from SMEs involved in the YHUA scheme, and 76 from SMEs probably not involved. As there was no discernible difference between the two groups, and certainly not in attitude towards education and training, the returns were simply bundled into one overall group of 210. Questionnaires had been posted to the chief executive of each SME, addressed by name, and these were nearly always the individuals who completed the survey form. They were not unfamiliar with higher level education and training: most of these senior managers were educated to degree level. More were qualified in engineering (37 per cent) than in any other subject, although – a sign of the times, perhaps – almost as many (29 per cent) were qualified in management and business

studies. These were educated individuals, enthusiastic about the general value of education and training as part of the infrastructure of innovation rather than its single source.

I have nearly completed an MBA at Leeds University This has provided valuable learning and knowledge to enable innovation in a wide variety of disciplines.

Improved education/training is necessary to ensure innovation is both feasible and viable.

On average, these senior managers had been with their current firms for just about 11 years, substantially longer than senior managers in large firms these days. Though the YHUA scheme was justified in terms of education and training making SMEs more innovative, these senior managers insisted that their own SMEs were already highly innovative. Some 87 per cent of respondents claimed that their company had innovated in the previous five years. This may not seem like much of an achievement, particularly in view of the very comprehensive definition of innovation the survey employed - the introduction of a product or process new to the firm in the previous five years - and in view of the possible tendency of senior managers to portray their firms as rather more innovative than they really are. Even so, such a result does seem to challenge the underlying assumption of the YHUA scheme that SMEs resist innovation and that government intervention is required to make them embrace it.

The assumption also disregarded much of the evidence available to the YHUA. For instance, a recent survey of manufacturing SMEs in South Yorkshire found that three-quarters were innovative (Innovation Advisory Service, 2000: 1), and an earlier study of the patenting practices of SMEs in the UK discovered that 83 per cent of their chief executives considered them to be innovative (Macdonald and Le fang, 1998). Similarly, a report to the Yorkshire Training and Enterprise Councils (TECs) found two-thirds of Yorkshire firms, large and small, were innovative in the sense of having introduced a new product or service within the previous year (Baldwin *et al.*, 2001: 27). SMEs – as their managers often try to explain – have to innovate in order to survive. Innovation was not seen as a function of education and training.

I believe innovation within a company stems from the top and a business structure that is versatile and open to change.

Innovation is mainly common sense and dedication.

Innovation, I believe, is an evolution of ideas that sometimes takes years to surface. And only rarely is a spark of inspiration (but it is nice when it is).

While there are obviously many factors that bear on the innovation of SMEs, the survey concentrated on the contribution of employees, and especially the education and training of employees, to this innovation. As Table 1 reveals, natural ability and experience in the job seem to be valued most highly (see Eraut, Alderton, Cole and Senker, 1998). It is understandable that the YHUA should have concentrated on the provision of formal education and training for that is the business of its members. SME managers, however, though qualified themselves, had trouble relating formal qualifications to SME innovation. Their innovation was essentially a practical matter.

Table 1. Employee Attributes Considered Most Important for Innovation in SMEs (% of Respondents)

	important
natural ability	70
experience in the job	58
experience in other jobs	35
formal education qualifications	25
experience in other firms	22

I think that it is important to have some knowledge of the industry you are involved in to know what will work and how the market and your customers will respond. Knowing how your industry operates is the most important factor in innovation.

In our experience it is not crucial to have high levels of academic qualifications – rather enthusiasm and a willingness to learn, adapt and change is important.

Commercial innovation can only come as a result of experience...It does not necessarily follow that if you give someone extra knowledge they will be innovative.

*I believe the ability to innovate is first, born in people; second, can be improved if people have received education prior to long practical experience. I don't know whether education **after** experience is as good.*

The survey also revealed that, in as much as these respondents considered education and training relevant to their innovation, it was training rather than education that they really valued. Their favoured providers were colleges of education rather than universities or consultants hired by universities and, as Table 2 shows, day courses were overwhelmingly preferred to any other intensity of provision. This preference for day release is compatible with what is known about small firms being unable to cope with prolonged absence of staff.

Table 2. Preferred Intensity of Provision of Education and Training (% of Respondents)

day courses	57
part-day courses	23
distance learning	11
weekend courses	6
week courses	3
TOTAL	100

Table 3 indicates the value these SME managers attached to practical qualifications (see Entorf and Kramarz, 1997; Senker 1997). Many SME managers yearned for a return to old-style apprenticeships, now almost phased out in the UK.

When an apprentice is taken from Humberside Council run organisation, they spend too many days away on courses not of use to the lad.

The three dimensional degree courses at colleges of art seem to have isolated silversmithing trade students. Though there are few trade students nowadays, they used to go to the college of arts and crafts part-time and night classes to complement their apprenticeships.

Inevitably, the apprenticeship issue brought complaints from managers who felt they bore the cost of training for the benefit of others, a market failure that the YHUA might well have used to justify training at public expense.

We have been active in training both apprentices and mature staff. Unfortunately, we have suffered from over-training where after training, staff have moved to other companies.

When apprenticeship support from the government of the day was removed, warnings were issued from industry that the dilemma that we are in now

would occur. Manufacturing will not invest in training because those who don't invest steal from those who do.

Table 3. Level of Education and Training Considered Most Appropriate to SME Innovation (% of Respondents)

apprenticeship	25
GNVQ/BTECH	25
first degree	17
GCSE	16
foundation year	8
masters degree	6
Ph.D.	3
Total	100

Table 3 is revealing, not so much in the prominence of training over education, for this was predictable, but in the relative value attached to a university degree, not that the YHUA scheme subsidised university degrees. These respondents were not at all hostile to university education, valuing it as school-leaving qualifications. University degrees are now very much more common in the UK than they were even a few years ago and employers are more familiar with them than ever before. However, these SME managers perceived an important distinction between education and training, and they were convinced that universities should be providing the former. They were absolutely scathing towards universities they thought were failing to educate.

I become more and more depressed at the reduction in standards of first degree level in universities – especially ex-polytechnics.

The quality of graduates we are now interviewing is disappointing, their ability to solve problems in an innovative manner is decreasing.

The main problem in training is getting people to think! This is obvious but a very difficult thing to do in practice.

Level of qualification not as good as previous years and still void between qualification and what industry requires.

Just over half of respondents reported participating in government-subsidised initiatives to encourage the education and training of their employees. As two-thirds

were supposedly participants in the YHUA scheme, it would seem that a good few senior managers of SMEs were unaware that the providers of their education and training were being subsidised by the scheme. Even so, those that were aware considered both the education and training received, and the subject matter taught, to be generally appropriate to the firm's innovation. Now this is curious for these very same managers were generally doubtful about the relevance of education and training to innovation in SMEs. The explanation may be that they were critical of the principle of subsidising education and training for innovation in SMEs, but more sympathetic towards receiving the subsidy themselves.

The individuals who participated in this subsidised education and training came from all parts of the spectrum of SME employees, with senior managers as likely to participate as manual workers and clerks. Interestingly, though, respondents – senior managers themselves – would have preferred fewer junior employees to attend and many more middle and senior managers (Table 4). This may reflect the dominant role of universities in the supply of education, such education being considered more appropriate for managers than for other workers.

Table 4. Status of Participants in Education and Training Schemes (% of Respondents)

	likely to attend	should attend
senior managers	24	25
middle managers	27	32
junior managers	21	20
clerks/administrators	23	8
other	5	15
TOTAL	100	100

The SMEs in this survey were surprisingly outward-looking, many of them estimating that external information makes a major contribution to their innovation (see Macpherson, 1992). As Table 5 reveals, most of this information came from predictable sources (Gibbons and Johnston, 1974). It is firmly established in studies of SMEs that the major external sources of information for their innovation are

customers, suppliers and competitors (Senker, 1986, 1997; von Hippel, 1988; Rothwell, 1991). Table 5 makes clear that the major sources of information for innovation for these SMEs were no different. Customers, especially a few major customers, were far and away the most important source, followed by suppliers and then by competitors (see Rothwell, 1991; Baldwin *et al.*, 2001). The least useful external sources of information for innovation were government departments and agencies, universities and consultants – basically the providers of education and training on which the YHUA scheme depended.

It is extremely difficult for small companies to get help with ideas from organisations like universities! Can you help please?

Table 5. External Sources of Information Considered Important for Innovation in SMEs (% of Respondents)

	important
main customers	64
all customers	54
suppliers	48
competitors	41
trade associations	33
professional associations	30
own group headquarters	26
consultants	23
universities	21
research associations	19
government	11

Very few respondents reported any sort of networking or exchange of information for other information. Information for innovation was seen as either available for nothing, or as something to be bought. There was little evidence of searching for information and, indeed, managers of SMEs are unlikely to have time to spare for searching, much less for building up the contacts and networks necessary to secure a regular and reliable supply of external information for innovation.

Getting information can seem like walking round a maze, and not at all simple, as it should be.

... we pay for advice from independent source who collates articles each month into a news sheet – approximately 16 sides A4.

Information networking demands relationships that allow information to be exchanged, normally for information of equal value. This is vastly more sophisticated than the concept of a pool of knowledge to which SMEs contribute and from which they can all draw. Yet, even this rudimentary pooling system was unfamiliar to most of these SME managers. This discovery is significant: without the communality of the information pool, or the inter-dependence permitted by networks, each SME is very much alone. For the information required for innovation, each is forced to depend on its own resources. And while network action stimulates further inter-dependency, isolation is equally self-perpetuating.

All our innovation to date has been inspired and executed within our company.

By far the most important means by which these SMEs acquired external information for innovation were reading specialist technical and trade journals (see Small Business Research Centre, 1992), keeping track of the competition, and talking with friends and colleagues in their own industry (Table 6). Such findings confirm what is already known about the world of SMEs, that this is an environment in which information for innovation comes from managers keeping their eyes and ears open for snippets that just might be useful for change within the firm. Agreements to acquire information for innovation from other firms were of little importance, even at the level of hiring employees from innovating firms. But just about as useless in providing the external information vital for innovation - as incidental as watching television - was participating in government training programmes.

Government sponsored training is too bureaucratic and obscure – thus we never use it.

Table 6. Means by which SMEs Managers Acquire Information for Innovation (% of Respondents)

reading technical and trade journals	63
talking with friends and colleagues in the industry	59
keeping track of the competition	58

market research	39
reading professional research papers	38
attending conferences and seminars	38
talking to employees of innovative firms	37
copying the innovation of other firms	33
visiting innovative firms	28
informal transfer agreements with other organisations	22
formal transfer agreements with other organisations	20
participating in government training programmes	16
hiring employees of innovative firms	15
watching TV or radio	10

ASSESSING THE BENEFITS OF THE YHUA SCHEME

Linear models struggle to explain the innovation of SMEs. They reveal only that SME innovation is different, a revelation from which it is all too easy to conclude that SME innovation is somehow inadequate (Rothwell, 1992). While programmes based on the supposition that innovation is a linear process - of which the YHUA scheme was one - are unlikely to encourage innovation, there may well be benefits elsewhere. Belief that innovation is ultimately dependent on the 'knowledge base' maintained by universities, and made accessible through the education and training the latter offer SMEs, is a belief that directs resources to universities and not necessarily to SMEs.

Universities are now organisations in which the bottom line is as important as it is in any SME. They have to be competitive and have had to change greatly in order to compete. Their own innovation as they struggle to create a market for their services is every bit as impressive as that of their customer SMEs.

“Firstly funding agencies such as the RDAs, Regional Government Offices, the new Skills Councils and the Small Business Service can be persuaded to give priority to exploiting the philosophy of using sector specific, learning partnership between HEIs, NTOs and small firms as a strategy [to] deliver regional economic development based upon embedding Lifelong Learning in SME sector firms. Secondly it is necessary to persuade relevant UK and European funding agencies that priority should be given to funding the development of new sector specific, self study learning systems covering those

issues where owner/managers feel competence enhancement is a route through which to deliver improved organisational performance.” (Chaston, 2000: 7-8)

In selling services in a non-academic market, especially one assumed to be unsophisticated, university marketing can sometimes intrude into the presentation of research. For example, one academic survey of the innovation of one hundred SMEs in South Yorkshire also seizes the opportunity to drum up business:

“85% said they would be interested in hearing more about the services available through the Institute of Work Psychology” (Institute of Work Psychology, *Change Management in SMEs*: 7)

And a commercial testimonial decorates the front of a collection of case studies from another northern university:

“PrintNET has streamlined our computer system, saving us time and money. We would highly recommend PrintNET’s services to other companies”
(*PrintNET Case Studies*, 2000)

If SMEs were quite pleased to accept the education and training services offered by YHUA providers - and the survey evidence here suggests they were - it may be because these providers went well out of their way to emphasise that there would be no cost to the SME. Consider the marketing of one university:

“Can Your Company Afford to Ignore over £3,000 worth of **FREE, DEGREE LEVEL MANAGEMENT TRAINING? TWO** degree-level courses being run at the University of Leeds are **FREE** to selected print and packaging SMEs..... All this is available absolutely **FREE OF CHARGE** to people working in independent companies employing less than 250 staff in and around the following ESF [European Social Fund] Objective areas: South Yorkshire, Wakefield, Pontefract, Castleford, Bradford, Batley, Dewsbury, Cleckheaton, Hull, Grimsby, Scunthorpe and Beverley.” [original emphasis]
(*PrintNET Newsletter*, 2, October 2000)

“£4,600 (per employee) of training to support your staff development – **FREE TO YOU.**” [original emphasis] (Intofood Programme leaflet, University of Leeds, 2000)

It was not always immediately evident in promotional material just whence the funds to pay for the education and training were to come. One leaflet did make clear the conditions of funding, but only in small print on the back page. Much larger print on the front page declared:

“The University of Leeds is offering **20 FREE PLACES** on **Open and Distance Learning (ODL)** courses to help you acquire these new skills. It doesn’t matter if you have no formal qualifications or haven’t studied for some

time.” [original emphasis] (‘Learning works’ leaflet, University of Leeds, 2000)

“Leeds Metropolitan University, with the backing of the European Social Fund, are offering you as an employer an opportunity not to be missed.....Free training and staff development. **YES, ABSOLUTELY FREE!** [original emphasis] (leaflet, Leeds Metropolitan University, 2000)

Promotional material emphasised that funds had already been allocated and were simply waiting to be spent:

“PrintNET has up to £400,000 to spend on helping Yorkshire businesses to innovate and to make the most of new technology.” (*PrintNET Newsletter*, 1, April 2000)

Perhaps inevitably, the YHUA scheme confused the distinction between education and training as commercial products and education and training as public goods. One university manager interviewed was quite clear that commercial pressures required any information presenting the YHUA scheme in a poor light to be suppressed:

“We had lots of negative comments [about YHUA education and training], but we wouldn’t want to show these, would we?”

CONCLUDING THOUGHTS

It is hard to be positive and constructive about the YHUA scheme. The best that can be done is to note that the SMEs managers surveyed were pleased to receive free education and training. But this is a classic special pleader situation: those who are given something for nothing generally think it a good idea that they be given something for nothing. The main problem with the YHUA scheme was that it was driven by neither market, nor by government. SMEs had almost no influence on the supply of education and training because they had access to no funds with which to express demand. Nor had government planned what education and training SMEs should have; this was determined by what the providers cared to supply, and by what both they and the scheme’s administrators could justify in terms acceptable to the European Commission. The YHUA scheme brought benefits to the providers of education and training for SMEs, but it is hard to believe that the scheme did much for the innovation of the region’s SMEs (see Oztel and Martin, 1998; Dannreuther, 1999).

There is a tendency for policies and programmes to assist SMEs to be just a shade patronising (e.g., Department of Trade and Industry, 2000) as if SMEs need parental guidance until they grow up (Lawton Smith, Dickson and Smith, 1991). SME managers in this survey did not need the YHUA scheme to tell them that innovation was important for business. They were also well aware of the role of education and training in innovation and of the essential difference between the two (Senker, 1981; Hyland and Matlay, 1998). SME managers valued challenging education and relevant training.

My son, who is a 2/1 university graduate, has helped me with thoughts of innovation. Being a small firm we react and try to innovate but generally our education level is GCSE/B. Tech which satisfies the electrical installation work we do.

Found our latest student on placement to have greatest number of 'new' ideas in IT/Internet but the lad with GCSEs has more understanding of practical side of the business.

They also valued quality. Poor quality education could easily deter innovation.

There can be a tendency for 'lower level' education to provide a barrier to innovation by providing answers rather than frameworks for questioning. There seems to be little positive development on innovative 'right brain' thinking.

Evidence elsewhere suggests that providers of education and training have some trouble keeping up with the pace of change in some of the SMEs they serve (Cooper, 2000). They can be quite oblivious of the real obstacles to SME innovation: SME managers lack resources, especially the time and energy, to do more than just survive. Because SME managers are forced to focus on daily existence, their picture of the world beyond is often hazy. Providers of education and training are much more familiar with this external environment, and might introduce SME employees to aspects of it. The benefits would be neither immediate nor easily measurable, but they might be significant, and they might eventually be reaped by SMEs themselves. In some contrast, the benefits of the YHUA scheme seemed to go only to the organisers and providers of education and training. The successor to YHUA, Yorkshire Universities, mentions the provision of education and training in its current strategic plan only as part of the context in which it works, not as one of the organisation's objectives.

“The Yorkshire Universities [sic] mission statement is: ‘Promoting collaboration which benefits higher education and the region’. The strap line for publicity material, letter-headings, etc. is ‘A Regional Voice for Higher Education’.” (<http://www.yorkshireuniversities.ac.uk/publications.php>)

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