

## **Delivering and undergraduate enterprise agenda using an e-pedagogy developed for off-campus non-traditional learners**

**Chris Birch, Mike Clements**

### **Introduction**

*The concept of the knowledge economy is one that has been embraced by most of the world's developed nations, driven by the impact of globalisation and the need to maintain sustainable competitive advantage. Our current standards of living will, to a significant extent, be dependent upon our ability to shift our economies from a production and manufacturing base to one based on high value-added, predicated on individuals creativity, ingenuity, innovativeness and entrepreneurship. It will be argued that we need intrinsically to link education, enterprise, entrepreneurship and employability to achieve this, deploying modern technology coupled to a new e-pedagogy, to deliver a radical new agenda in a flexible, practical and dynamic way. All developed nations are now trying to encourage more graduate start-up companies, and Universities have a key role to play in this. This paper will focus on progress made over the past three years in transferring experiences in module design and delivery with off-campus non-traditional learners working in small businesses, to undergraduates interested in pursuing a more enterprise-focussed course of study.*

### **Description of the study**

The drive to establish Staffordshire University's *Enterprise Agenda* derives from the recognition that education can be a prime mover in enhancing, and perpetuating a sustainable economy that can be globally competitive for the foreseeable future. Nearly ten years ago, it was publicly and politically recognised that the UK needed to accelerate the transformation of its economy from an industrial to a knowledge base<sup>1</sup>. The Department for Trade & Industry Report, '*Smoke on the Water: A Fire in the Sky*'<sup>2</sup>, suggested that new attitudes, values and skill sets were needed to replace deep rooted and traditional assumptions and behaviour patterns in the workplace, often rooted in large, legacy-based manufacturing companies, or extractive industries. The deeply embedded nature of these old attitudes and aptitudes was creating an economic drag in an ever-competitive, globalised market, and what was really needed were more flexible, dynamic and smaller companies, based on the production of high value added products and services.

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<sup>1</sup> [UK] Labour Party Manifesto 1997

<sup>2</sup> Department for Trade & Industry, *Smoke in the Water. A Fire in the Sky*, First Report on the National Skills Task Force, HMSO, UK, 2000

Post 1992, the UK higher education system has raised participation rates from 10% to 43%. However, it is becoming clear that the number of graduate based start-up companies has not increased in anywhere near the same proportion. This infers a mismatch between the needs of the emerging knowledge economy, with the need for more graduate entrepreneurship, and the 'production side' of our education system. This has led to many government initiatives to try to encourage more graduates to create their own careers by starting up their own businesses.

Gradually entrepreneurial and enterprise education in the UK is becoming better co-ordinated and embedded into university structures and processes. This paper will focus on the progress made over the last three years in transferring experiences at Staffordshire University in module design and delivery with off-campus non-traditional learners working in small to medium-sized enterprises (SMEs: small and medium-sized enterprises - defined as employing less than 250 employees) to undergraduates interested in pursuing a more enterprise-focussed course of study.

The paper will begin by providing a brief contextual picture of the importance of an enterprise agenda in Staffordshire, which is a large region in England. It will then discuss the e-pedagogy that we have developed for our non-traditional SME learners, often working off-campus and making use of a virtual learning environment. And then we try to explore the extent to which it has been possible to transfer these experiences to more traditional, full time undergraduate students who have an interest in enterprise and entrepreneurship.

Staffordshire was the epicentre of the nineteenth century industrial revolution, owing to accessible mineral and ore deposits, geographical centrality and the emergence of inventive and innovative people, with entrepreneurial spirit and drive. More recently the regional economy has been in decline with the rapid contraction of the traditional industries including agriculture, coal, iron-and-steel, ceramics and car manufacturing and metal based industries, all reliant on the intensive use of labour and organised in large operational units.

It is worth considering the growing importance of small to medium sized enterprises in the UK in respect to the generation of jobs and future economic growth<sup>3</sup>. Table 1 summarises the latest data on size of UK enterprises as provided by the UK Government Department of Trade & Industry's (DTI) Small Business Service. Nearly 70% of UK enterprises comprise a single self-employed person. A further 29% of SMEs employ less than 50 people, and less than 1% employs more than 50 persons.

**Table 1. UK Company Size (2002 – 2003)**

		Size (number of employees %)			
	=100%	None	1-49	50-249	250+
<b>Enterprises (#)</b>					
All industries(02)	3,746,340	69.3	29.8	0.7	0.2
All industries(03)	3,860,465	68.2	30.8	0.7	0.2
<b>Employment ('000)</b>					
All industries(02)	22,622	12.8	30.6	12.0	44.6
All industries(03)	27,632	10.6	26.3	10.6	52.4

<sup>3</sup> C. Birch, M. Clements, *Engaging Small to Medium Sized Enterprises in Learning*, ITLC Florida, USA, April, 2003, <http://www.sulc.ac.uk/cjb>, 11.2005.

<b>Turnover (£million)</b>					
All industries(02)	2,112,013	7.2	29.0	15.1	48.6
All industries(03)	2,290,474	6.8	28.4	14.8	48.9

In other words, 99% of companies employ less than 50 people. Whilst the larger organisations do continue to play a most significant role in total numbers of people employed, the implications for future employment for many undergraduates are that they will be as likely to join a small to medium sized firm or to start their own business rather as to become part of a large organisation<sup>4</sup>.

The number of business start-ups is obviously an indicator of economic success, but as important are growth and sustainability rates. It is estimated nearly one third of all new firms will have ceased to exist within three years of their establishment (Table 2). Whilst there can be many reasons why a firm should fail, or under-achieve (data for which is not collected), it is widely recognised that under-developed leadership and management skills are a significant factor.

**Table 2. UK New Company Failures (1999-2001) (DTI Small Business Service 2003)**

Survival rates of VAT registered businesses	Registering in 1999			Registering in 2000		Registering in 2001
<b>Percent still trading after:</b>	1 year	2 years	3 years	1 year	2 years	1 year
UK	89.6	77.1	66.5	90.5	78.9	92.2
West Midlands	89.5	76.9	66.5	90.8	79.4	92.1
Staffordshire	89.2	77.3	67.6	90.8	80.0	92.0

A recent report suggested that graduates can have a significant impact upon success in small businesses but many still prefer to develop their careers in larger organisations<sup>5</sup>. The source of UK graduate first destinations<sup>6</sup> does not distinguish between size of firm (there are plans to do so) of the 70%+ that went into full-time employment. There are estimates of those graduates that chose self-employment (Table 3). These estimates suggest that far too few graduates are starting up new businesses within six months of leaving their college or university, particularly when compared to the United States of America.

**Table 3. UK Graduate Destinations (Self-Employment) (HESA, 2005)**

	Postgraduates	First degrees	Other qualifications
Full Time study	3%	2%	1.5%
Part Time study	4.5%	3%	3%

<sup>4</sup> C. Birch, *Nurturing tomorrow's entrepreneurs*, 9th EDINEB Conference, Mexico, June 2002

<sup>5</sup> R. Holden, S. Jameson, D.J. Parsons, *Making a difference – The contribution of graduates to small business success*, Report to the Small Business Service (URN 03/868), December 2002

<sup>6</sup> Higher Education Statistics Agency Limited (HESA), 2005

This begs the question as to how many undergraduate degree programmes are really preparing students to make the transition from higher education into establishing their own business, either immediately, or within five years of graduation, or for working in small businesses that are becoming the bedrock of our economy. In turn, this leads onto what UK higher education organisations might do stimulate and encourage more enthusiasm amongst learners to consider the opportunities within the SME sector.

## Findings

### *Off-Campus Experiences – The Emerging Pedagogy*

For over four years now Staffordshire University has been delivering e-learning projects to SMEs using a virtual learning environment (*Blackboard*). This allows the learner to take part in learning anywhere, any time and at any pace. Early trials suggested the need for a pedagogy suited to these particular learners. As long ago as 1980, Knowles was advocating a different, more appropriate approach to adult learning<sup>7</sup>. He discussed the concept of *andragogy*, a specific form of pedagogy more suitable for *adult learners* (generally regarded as those learners who have left post-18, full-time education and who are studying usually, but not necessarily, on a part-time study mode). The University of Hawaii offers an interesting set of *principles of adult learners*<sup>8</sup>. Knowles' main concern, as were the authors', was that existing pedagogies were less suitable for the adult learner because they did not reflect the specific needs of this learner group often regarded as the most difficult learner group to engage with<sup>9</sup>. Nowhere is this truer than for the off-campus management adult learner, where they will have a number of needs:

- Need to learn to learn (again);
- Opportunities to engage in lifelong learning;
- Motivation to engage in learning, to overcome the considerable difficulties that the adult/part-time learner can meet;
- Importance of the provision of 'relevant content';
- Interactivity with the tutor;
- Interactivity with fellow learners;
- Opportunity to work with other learners;
- Flexibility of when the learning takes place as well as the opportunity to reflect and deliberate.

What is required, it appeared, was a whole new approach underpinned by an appropriate pedagogy<sup>10</sup>. The method used by the authors has been to develop a *micro learning/granularity approach*, delivered electronically using work-centred/problem-

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<sup>7</sup> M. Knowles, *The Modern Practice of adult education: from pedagogy to andragogy*. Cambridge Book Company, Cambridge 1980

<sup>8</sup> University of Hawaii, *Principles of Adult Learners*, <http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-1.htm>, 11.2005

<sup>9</sup> C. Birch, M. Clements, *Engaging Small to Medium Sized Enterprises in Learning*, ITLC Florida, USA, April, 2003, <http://www.sulc.ac.uk/cjb>, 11.2005.

<sup>10</sup> T. Griffiths, D. Guile, *Pedagogy in Work Based Contexts*, [in] P. Mortimore (Ed), *Understanding Pedagogy and its Impact on Learning* (pp. 155-175), Paul Chapman Publishing, UK, 1999; A. Hodgson, M. Kambouri, *Adults as Lifelong Learners: The role of pedagogy in the new policy context*, [in] P. Mortimore (Ed), *Understanding...*; B. Collis, J. Moonen, *Flexible Learning in a Digital World*. Kogan Page Publishing, UK, 2001

based learning<sup>11</sup>. This assumes the needs of the learner are such that their learning time is at a premium and that there must be a clear perceivable relevance in the materials used. The emphasis is upon taking learning back into the workplace and away from the traditional classroom environment.

The attraction of the approach to providing learning in granular form has found increasing support<sup>12</sup>. The emphasis in developing the University's off-campus e-programme was to provide a meaningful yet flexible learning environment. It was found that the target learner groups were less likely to engage in traditional learning activity, having less structured and planned management development programmes. They were less likely to find the time to attend traditional classroom, on-campus training programmes. There was a need to encourage them back into a 'learning culture', returning to (more structured) learning possibly after some considerable time away. For many of the participants they needed to 'learn to learn' once again, but in a new and unknown way<sup>13</sup>. The pedagogy has sought to move away from the 'sage on the stage' towards a 'guide on the side'<sup>14</sup>; the module tutors becoming more facilitators of the individual's learning process than imparting information. The core to this approach has been to look towards problem-based learning and work-based learning as vehicles for learner involvement and enhanced learner motivation<sup>15</sup>.

### ***The On-Campus Enterprise Agenda***

Some three years ago, a review of how 'enterprise' featured in undergraduate programmes was commenced. This included how the University might use its off-campus experiences to support SME learning. The review began with a blank piece of paper, no preconceptions, and involved looking at:

- How would the University deliver an enterprise agenda?
- Who should be its audience?
- How could it ensure that it matched the needs/expectancies of this audience with appropriate materials?

### ***Delivering The Enterprise Agenda***

In looking at current syllabi, reviewers found the presence of 'enterprise teaching materials' to be fragmented and dispersed across all Faculties. Timetables were constructed in such a way as to make it almost impossible for students to access modules offered elsewhere because of the need to attend traditional lectures and tutorials at set times on set days. Moreover, there was no process whereby a student could simply attend, through registration, of a class or module, for interest sake alone. Reviewers

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<sup>11</sup> C. Birch, M. Clements, Keeping knowledge workers up-to-date: Creating Just-in-Time, virtual, micro-learning opportunities, 7<sup>th</sup> EDINEB Conference, California, June 2000; C. Birch, M. Clements, SMILE – A Granular Approach to Off-Campus Learning & Teaching Delivery, BITE 2001 International Conference on Information Technology in Higher Education, Eindhoven, Netherlands, November 2001, <http://www.sulc.org/mac>, 11.2005; JISC Joint Information Systems Committee (UK)

[http://www.jisc.ac.uk/index.cfm?name=funding\\_elearning\\_models](http://www.jisc.ac.uk/index.cfm?name=funding_elearning_models), 11.2005;

<sup>12</sup> J. Stephenson, A. Basiel, *An Evaluation of On-Line Learning of Supervisors in Small and Medium Sized Enterprises* (An Evaluation Report of the Super STELLA Project), Middlesex University, UK, June 2001

<sup>13</sup> J. Ravn, J. Tofteskov, M. Pedersen, B. Heiberg, *Platform, Pedagogy & Learning to Learn*, 8<sup>th</sup> EDINEB Conference, Nice, France, June 2001

<sup>14</sup> Marchmont Observatory, *Learner Support*, Workshop Report, Newcastle-upon-Tyne, UK, October 2000

<sup>15</sup> P. van de Bossche, M. Segars, D. Gijbels, F. Dochy, *Effects of Problem-Based Learning in Business Education: A Comparison between PBL and a Conventional Educational Approach*, 8<sup>th</sup> EDINEB Conference, Nice, France, June 2001

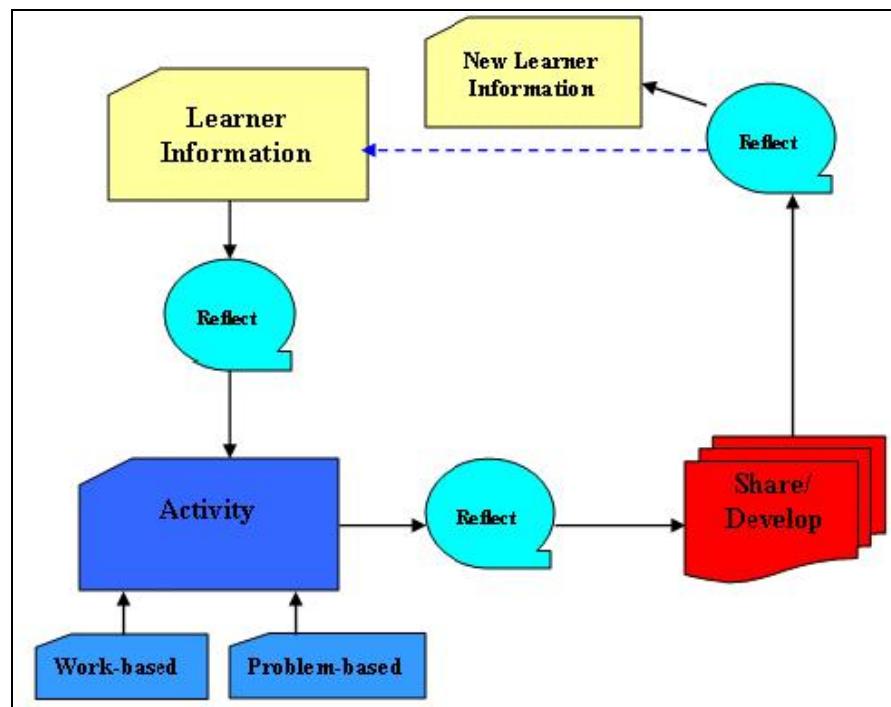
found that many learning materials were very much steeped in a traditional business format which was inappropriate for the SME learners.

Through discussions with both Faculty staff and students it was concluded that full time undergraduate students who were interested in enterprise and business start-up options did have similar learning needs and objectives to those of off-campus, work-based learners, and that current syllabi, delivery mode and pedagogic processes might well be inappropriate to their needs and interests, which might be characterised as being utilitarian in that they wanted hands-on, practical, just-in-time and just-enough knowledge that they could both relate, and apply to their potential interest. The conclusions from these deliberations were that there seemed potential to explore applying the pedagogy being used with off-campus learners, but with certain modifications tailored to the specific needs of this group.

The Content was to be delivered, using the established *granularity approach* namely, as a series of (*byte-sized*) 'chunks of learner information'<sup>16</sup>. This is shown in Figure 1. Each chunk consisted of:

- An input of (relevant) Learner Information;
- The Opportunity for Individual Reflection on this Learner Information;
- The provision of an Activity to develop specified skills (using problem based/work based learning whenever feasible);
- A further Opportunity for Individual Reflection on the Skills development and Learner Information;
- The use of learner Collaboration: the Opportunity for Individual and Group Reflection and Discussion;
- Provision of Feedback to the Learning Community as a whole.

**Figure 1. The Granularity Approach Used With Off-Campus Learners**



<sup>16</sup> C. Birch, M. Clements, SMILE – A Granular Approach to Off-Campus Learning & Teaching Delivery, BITE 2001 International Conference on Information Technology in Higher Education, Eindhoven, Netherlands, November 2001, <http://www.sulc.org/mac>, 11.2005,

### ***The Audience***

The aim from the outset was to make ‘enterprise’ available as a topic to as wide an audience as was possible, theoretically up to the 10,000 students in the University. This would have been completely impossible without the adoption of a vle (virtual learning environment) to deliver the enterprise modules. Staffordshire University has been using vle’s to deliver on-campus modules to over 12,000 students since 1998/9<sup>17</sup>. By using the vle *Blackboard*, it was possible for some students to register on the modules for assessment purposes (as Options), (these would count using CATS points towards their degree studies – Credit Accumulation Transfer points) whilst others received ‘guest access,’ where there is no tutor support or assessment. At present these latter students are not able to make contributions in the virtual areas though ‘permissions to view’ can be granted (and they are encouraged to seek out a relevant tutor if they become interested in the materials). A development foreseen is to provide a more general (virtual) discussion forum area where they could ask questions and discuss with all other registered students.

To date, the successes have been primarily in the Business and Engineering Faculties. During the last academic year (2004-2005) over 1,990 students registered on these enterprise modules using *Blackboard*. Probably no more than 20% actually undertook the module assessments; the remainder were using these modules as a learning resource. It is expected year-on-year, that these numbers will increase and that the remaining large Faculty – Art, Media and Design – will be coming on-board. They appreciate that many of their students are perhaps the most likely to actually go into small scale organisations or start-up their own businesses. This educational model has attracted also the interest from a number of the University’s franchised partners overseas too.

### ***Audience Learning Needs And Expectations***

The issue discussed earlier in the paper relates to the suitability of content, and providing what the learner requires, in a timely and flexible way. Researchers have found significant learning culture differences between those working in larger corporations and those in SMEs, which is perhaps unsurprising, but which needs greater consideration than it has hitherto been given<sup>18</sup>. Examination of multifarious learning materials showed that content, examples, case studies, business models and assessment methods bore little resemblance to the needs or the reality of the smaller organisation. Entrepreneurial types are usually the ‘rebels’, who are inclined to question the ‘status quo’ in order to move on, to newer things. Regulated processes and procedures are invariably alien to them. There seems to be a far less readiness by them to accept the traditional ‘sage on the stage’<sup>19</sup>; the all-knowing expert who often has little empathy with this group of learners; how many of the Faculty staff, for example, had ever actually been involved in enterprise? These students tend also to be (overly) pragmatic in their approach to learning (which we may or may not necessarily agree with, but we have to recognise and accept it as a significant

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<sup>17</sup> M. Clements, Introducing a VLE into an Undergraduate Business Programme: Using Lotus LearningSpace, Account, 11, 1, 14-19, 1999; M. Clements, M. Smalley, *Opportunities to Enhance the Student Learning Experience using a Virtual Learning Environment* [in] P. Davies, S. Hodkinson, P. Reynolds (Eds) *Learning and Teaching Economics in Higher Education*, (pp. 77-98), Staffordshire University Press, UK, 2000

<sup>18</sup> J. Stephenson, A. Basiel, *An Evaluation of On-Line Learning of Supervisors in Small and Medium Sized Enterprises* (An Evaluation Report of the Super STELLA Project), Middlesex University, UK, June 2001

<sup>19</sup> Marchmont Observatory, *Learner Support*, Workshop Report, Newcastle-upon-Tyne, UK, October 2000

part of their perceived learning needs) – to *them*, is the learning programme ‘worth doing’?

In summary, student feedback suggested:

- There must be relevant content. This doesn’t necessarily exclude ‘theory’ but that the theory (or rather the application of that theory) must be perceived as being relevant to their ‘small’ situation (which, for example, so many business case studies used to teach undergraduates patently aren’t).
- The learning is far less likely to be accepted if it is perceived as being ‘learning for its own sake’. It has to be seen as ‘worthwhile’. It is mistake to see this as being of only a short-term expediency (‘how to’) measure. Entrepreneurs do think long term too, but take a far more pragmatic view of education and learning.
- There may or may not be the need for a formal award attached to the learning experience.

The authors agree with the views of Collis and Moonen that an acquisitive, training model is not the most appropriate for this group of learners. A more sophisticated approach is needed to engender active and creative learning, where participation in many forms, collaboration and contribution become the core focus of learning activity<sup>20</sup>. There has been a recognition that there are different groups of learners within the general category of ‘enterprise learner’, each bringing to the ‘party’ different learning motivations and expectations. Some might be called simply ‘information seekers’. They are looking for knowledge, and application of that knowledge to assist their (usually) immediate concerns, for example in setting up a new business. There are others looking more specifically to acquire formal qualifications via this route of learning. They tend to have a longer time perspective to learning. These groups are not necessarily mutually exclusive.

### ***Appropriate Learning Materials***

From the review of Content and Pedagogy emerged a 3 levels (core) enterprise pathway that could be delivered either in blended (face-to-face and virtual) or virtual form only, using *Blackboard*:

- *Enterprise for Non-Business Students* – level 1 (year 1): an introductory module looking at ‘enterprise’, ‘invention’ and ‘innovation’.
- *Entrepreneurship* – level 2 (year 2): more a focus on ‘how to’ and ‘pitfalls to avoid’ in setting up a new business; the construction and presentation of a business plan.
- *Strategic Entrepreneurship* – level 3 (year 3): with so many failures of new business start-ups, here the emphasis is upon ‘sustainability’, ‘succession-planning’ and the ‘harvesting of business opportunities’; taking a longer term perspective of enterprise and entrepreneurship.

Supporting the pathway will be additional e-modules (at present in preparation there are 2 ~~two~~ - *Health & Safety* and *Enterprise Design and Intellectual Property*). Students remain able to undertake their own career specialisms (such as ceramics, music, computing) in parallel with the enterprise agenda, rather than read for an enterprise degree per se. This is recognition that many creative ideas for new business start-ups are embedded in a specific knowledge specialism, which has to be learnt – a creative music technologist has to have knowledge of music technology as well as entrepreneurship.

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<sup>20</sup> B. Collis, J. Moonen, *Flexible Learning in a Digital World*. Kogan Page Publishing, UK, 2001

Furthermore, students will be actively encouraged to engage in regional and national enterprise initiatives as part of their learning experiences, such as the Business Ideas Competition - *Bizcom* (Figure 2).

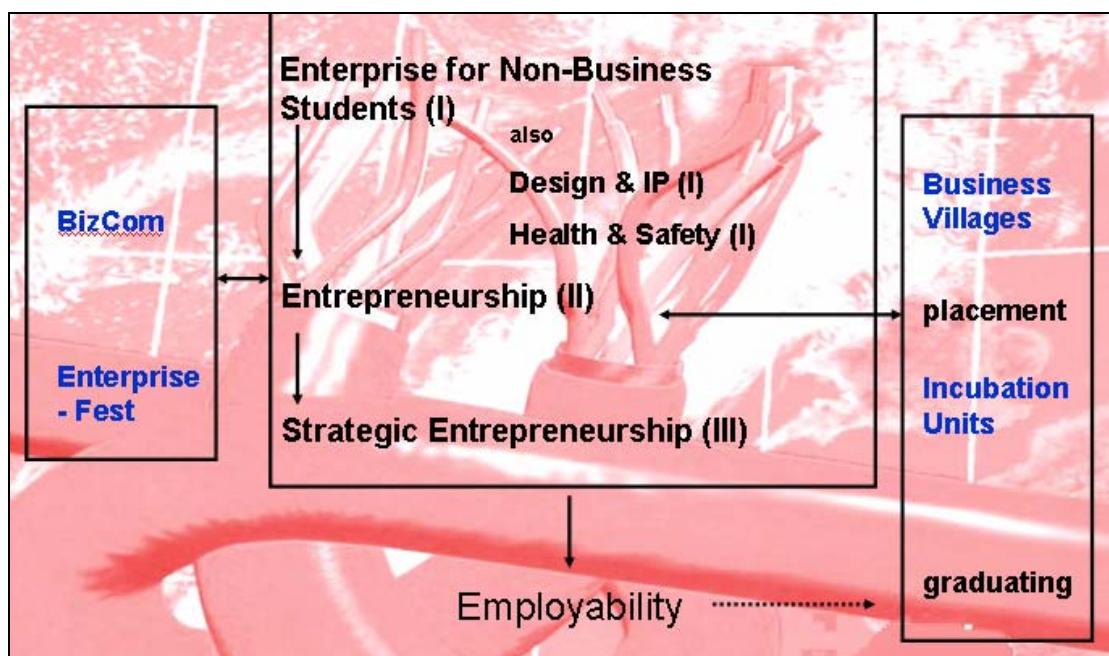
**Figure 2. *Bizcom* Website**



These initiatives will be integrated more closely into the enterprise curriculum. This is part of the 'learning through doing' that is considered integral for budding entrepreneurs. In the case of these initiatives, students are required to create new business ideas, develop them in a planned and coherent way and present these ideas to an audience of business people and fellow-contestants, often for cash prizes. What participation in these initiatives does do is to ensure that the student's ideas become exposed to the reality of a real competitive environment, rather than a theoretical debate which happens with so many case study sessions in a Business School.

To add further support to these enterprise initiatives the University is offering bursaries to those students who during a business placement (where a business placement forms an integral part of their degree programme) decide they would rather work for themselves (in the establishment of a new enterprise or new business idea) rather than an employer. The bursaries support them with cash flow, and give them access to the University's new-business incubation units on their recently established *business villages*. These bursaries are available on a competitive basis, where the applicants have to justify receiving the support through the production of a feasible business plan in much the same way as they would have to do to raise business finance in the real world. The total enterprise agenda, as current, is shown as Figure 3.

**Figure 3. Staffordshire University's *Enterprise Agenda***



## Conclusions and recommendations

### *Was The Pedagogy A Complete 'Fit'?*

There were two specific areas where the off-campus pedagogy was seen as not 'fitting' well with the undergraduate enterprise learners. These were:

- The emphasis upon *work-based learning and application* to support the learning experience. Engagement with the SME learner has been to link the 'theory' with 'practice in their own firm' with immediate implementation and effect. By doing so learners and their colleagues were quick to appreciate the 'relevance' of what they were doing or being asked to do.
- Secondly, few on-campus students had sufficient previous/current work experience or opportunity to use the learning materials in the same way as SMEs.

### *The Response*

The University has responded in a number of ways:

- It is encouraging the on-campus student, through the vle platform to use the virtual classrooms and chat rooms to share what experiences they have got. Increasingly, UK full-time students are likely to be in some kind of part-time employment to help pay for their studies, some working for themselves on a freelance basis, some in small firms, as well as some in large organisations. Some students, likely older (there is a growing trend in the UK that undergraduates no longer fall only within an 18-21 age range), will have been in employment previous to joining the course.
- Moreover, it is hoped to develop some (virtual) discussion areas where both on- and off-campus learners can share comment on the Learner Information (the 'theory materials') and in-company experiences where appropriate. This will

present an exciting challenge. It is an ambitious challenge to envisage the construction of an interactive (life-long) learning environment in the region.

- Students will be encouraged to set up their own 'breakfast clubs' where entrepreneurs from SMEs will be invited to talk and discuss real issues and problems.
- More students to be encouraged to participate in the own-business placements and use of University incubation facilities.
- Increase the level of participation in regional and national enterprise competitions to stimulate the competitive edge of these students.
- Increase the number of participants in the enterprise pathway in a way that students from across Faculties who would otherwise not come in contact with one another (on a professional basis) to cross-fertilise new business ideas and opportunities.

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