Enhancing employability: integrating real world experience in the curriculum

Ester Ehiyazaryan and Nicola Barraclough

Sheffield Hallam University, Sheffield, UK

Abstract

Purpose – The purpose of this paper is to report on pedagogical research into the student experience of an approach to enterprise education integrated into the curriculum in a large metropolitan university. The paper aims to explore the implications which the research findings have for pedagogy for enhancing student employability and to discuss the approach to integrating the employability experience within these students' programme of study.

Design/methodology/approach – An explanatory case study approach was adopted which aimed to explore students' perspectives on studying in a simulated work environment. Using the case study approach, phenomena of the student experience and behaviour identified through a survey questionnaire were used as a benchmark to understanding how and to what extent students learn employability skills and attributes within the learning environment. The quantitative questionnaire was followed by in-depth focus group interviews which explored the ways in which students learned in interaction with each other and with clients and the effectiveness of the simulated work environment approach.

Findings – The findings of research pointed to the value of real world experience to learner employability. Students were most motivated in the subject matter where they could engage in activity or situations which they were likely to encounter in the real world of business. This further influenced their behaviour – students demonstrated reflective thinking and enhanced confidence. The learning environment's design in terms of the interdependent way in which students were expected to work was considered to have equally high implications for learner engagement in employability.

Originality/value – This paper contributes to the wider research on learner engagement in employability which is a challenging issue in higher education pedagogy. The paper has some implications for appropriate learning design which would be of interest to academics and practitioners in developing curricula for employability. An emphasis is placed on the need for further research in the areas of teaching transferability to students, effective employer engagement and the value of interdependent learning.

Keywords Employment, Learning, Skills, Higher education

Paper type Research paper

1. Introduction

This research paper reports on an evaluative pedagogical research study of the value of an enterprise education initiative within a large metropolitan university. The Venture Matrix (VM) is a learning environment which allows students to set up and lead their own companies, trade with each other and try out creative ideas in a low-risk environment. An online interactive trading estate supports the face to face interactions between students, allowing them to advertise their ventures and seek opportunities for business with each other. There are a range of activities within the VM, including advertising agencies, interactive media specialists, market research, ICT solutions, etc., depending on the participating students' areas of expertise and interest.

The initiative is introduced to undergraduate, university students taking Business
and Technology-related courses, including:

- BSc Business and ICT;
- BSc Management Communication and Technology;
- BSc Corporate Communications;
- BSc Business Communications;
- BSc Technology with Business Studies;
- BSc Information Technology and Management; and
- BSc Technology and Enterprise.

Currently at its pilot stage, the longer term prospect for the VM is for it to expand to a
broader range of subjects, including those in the humanities, thus engaging students in
social enterprise.

Students at all three levels of undergraduate study are involved in the VM and their
success within the VM depends on seeking active, interdependent collaborations with
people outside of their own course or level of study and outside of their immediate peer
circle. The distribution of roles is as follows:

- Level 6 (third year) students set up the companies and provide leadership.
- Level 5 (second year) students take on middle management roles within
  companies.
- Level 4 (1st year) students adopt "worker" roles, applying for jobs within the
  companies.

The VM is a compulsory module at each of the three levels of undergraduate study.
The modules are formally assessed, with the summative assessment resting on a
collaboratively written report by each group of students on the business venture they
created, or contributed to.

The VM pedagogical approach is essentially targeted at enhancing students'
employability skills and attributes. The aim of this research was to explore the student
experience of this initiative in terms of the employability development opportunities it
offered them. As the contextual review demonstrates in the following section, students
are acutely aware of the need to prepare for employment and develop skills and
attributes which are broader than the subject specific. Yet there are significant and
widely reported issues with students' lack of engagement. The broader research
question explored is what engages students in employability learning? This question is
explored in the context of the opportunities for learning which the Venture Matrix
model provides, in particular focusing on which aspects of the learning environment
have worked well in engaging students and which have been unsuccessful. Within this,
the paper provides empirical data contributing to knowledge on how to approach
teaching and learning employability within the higher education curriculum in a way
which successfully engages students in this learning context.

2. Context
In discussing the way the employability of an institution is measured, Harvey
disregards measurements such as graduate employment rates, instead posing the key

argument that the quality of employability in an institution is most effectively measured by the quality of the employability development opportunities which a given HE institution offers to students (Harvey, 2001). This makes it necessary to place a firm focus on the student experience of the employability opportunities offered within the institution and particularly their engagement with these opportunities, as the true measurement of the institution's employability potential.

2.1 Student engagement in employability and approaches to pedagogy
Looking at the issue of engagement in employability from the students' point of view, means taking into account how students reason in attributing value to their higher education experience. Tomlinson (2008, p. 59) explores this point highlighting students' increasing awareness of the "importance of the so-called 'soft' currencies" otherwise known as employability skills and attributes. Tomlinson's findings reveal students' increasing awareness of the need to differentiate themselves in a highly competitive labour market (Tomlinson, 2008, p. 59). While such increased awareness of the need to develop their employability should mean enhanced student engagement in employability pedagogy within their higher education, studies have shown that this is not necessarily the case. Rae (2007, p. 609) highlights this issue:

> Staff with responsibility for work placement and career development provision comment frequently on the low standard of students' self-presentation skills, curriculum vitae and applications, which they judge too poor to present to employers. Learners have diverse needs, and often require, but do not necessarily welcome, quite basic education in these aspects of self-organisation and presentation . . . Career planning and personal development provision is widely seen as less important, and often separate from, the main subject or skills-based course provision.

The author argues that the problem of low student engagement in employability has its roots in the dispersed and fragmented way in which such employability is delivered to students (Rae, 2007). Rae criticises the academic management approach of providing employability to students as discrete components of a programme of study such as development planning and recording; career development modules; project-based learning etc. In his view such activities are unconnected in the minds of students, which could mean that learners fail to see their relevance and do not engage in their content:

> The problem is that if the staff responsible for the different components of an employability programme do not connect them together, and present them in an integrated and coherent way to the students, the students are themselves unlikely to recognise the inter-relationships which exist within the learning experience. That is why there is a need to "only connect" the different aspects of an employability programme (Rae, 2007, p. 608).

The issue of student engagement in employability is therefore manifold – it depends on the effectiveness of programme design, implementation and delivery which in turn depends on support and agreement from both management and academic staff. Just as crucially, students' perceptions of how employability is delivered to them ultimately determine whether they will engage with the programme or not. The design of teaching and learning for employability therefore needs to offer an experience for students which allows them to see their employability as part of their core activities in higher education. This poses the question – how can pedagogy respond to this challenge of a

more integrated employability curriculum the value of which would be evident to students? Since the VM learning environment is integrated into students' programme of study across all three levels of study and directly related to the curriculum content studied, it has the potential to deliver such an integrated approach as research literature calls for. This study was therefore concerned with exploring whether and how this approach was effective in engaging students in gaining employability skills and attributes.

2.2 Understanding the nature of engagement – employability models
It is necessary to understand the nature of the engagement which learning employability requires of students in order to explore the influences on students' engagement. There are a number of employability models (Dacre Pool and Sewell, 2007; Kumar, 2007; Yorke and Knight, 2006; Watts *et al.*, 1996) which collectively identify the constituent elements of employability. These include transferable skills, as well as employability attributes, collectively referring to the developing ability of students to reflect, their developing self-confidence and their propensity for self-efficacy (Dacre Pool and Sewell, 2007).

A recent study of employers' needs by the Council for Industry and Higher Education highlights the key importance of team working skills and communication skills as the most sought after graduate skills by employers (Archer and Davison, 2008). The demands on the mode of working which the VM places on students emphasise working collaboratively in teams, as well as reaching out to students at different levels of study in a variety of roles – as employer, as employee, as colleague. This research study reveals the effects which this form of learning had on students' employability both through affording opportunities for students to gain transferable skills but also through implementing an integrated approach to delivering employability as discussed by Rae (2007).

In their USEM model Yorke and Knight (2006), identify metacognition, of which reflection on learning is part, as a core employability component. We could argue that the quality of students' reflection is an indication of how engaged students are in the learning experience and research literature has frequently highlighted links between reflection and engagement in learning (Duffy *et al.*, 2008; Moon, 1999; Boud and Walker, 1990).

Student engagement in employability is further often related to students' efficacy beliefs as described by Yorke and Knight (2006) in the USEM model , also known in research literature as self-theories. Studies by Dweck (1999) have shown that students' self theories regarding their ability to learn, can be either fixed or malleable. It is broadly accepted that learners with malleable views on learning are better equipped for lifelong learning, are more "versatile" and "explorative" in their approach to learning (Yorke and Knight, 2004), deal better with challenges and are more inclined to take creative risks in learning. It is also argued that students with malleable views to learning would possess more enduring enthusiasm for learning and would be more likely to adopt a deep approach to learning (Nicol and Macfarlane-Dick, 2006; Moon, 1999; Bandura, 1997). All of these are highly desirable behaviours and characteristics for a learner's employability. Moreover, such a clear relationship between the self-theories which students foster and the nature of their engagement in learning makes it necessary to consider the factors existing within a learning environment

which influence the development of such self-theories. This research study provides evidence of how the opportunities existing within the VM learning environment acted to positively influence learners' confidence, thus playing a part in positively influencing self-theories.

In addition, and going back to the need to integrate the employability learning experience (Rae, 2007) not only within the curriculum but also across all levels of undergraduate study this research focused on understanding the aspects of the VM learning environment which required communication across levels of study, the nature of the working relationships within this and the effect which this had on student learning.

As the literature review makes clear, part of achieving a high level of performance in employability provision is ensuring learner engagement in this provision. This determined the focus of research on learner's perspectives and experiences of the employability module studied. The literature review further suggested some of the key implications which this focus on learner engagement has for pedagogy. First, it is necessary to consider the effects of an integrated approach to introducing employability to students – would they be responsive to a learning environment which asks them to communicate with students across three levels of study, adopting different employment roles, where the demands on their communication and collaboration skills are so high? Second, is there evidence that these less traditional forms of engagement in learning, involving students in setting up companies, applying for contracts, dealing with customers amongst others, are successful in promoting the essential employability skills and attributes? Whether students were reflective in the process of working in the VM environment, whether the modes of interaction they adopted contributed to more positive efficacy beliefs and self theories – these are aspects of learning which this research was concerned with. Accordingly the methodological approaches adopted within the study sought to capture this kind of evidence.

3. Methodology

As the primary aim of the study was to evaluate the pedagogical effectiveness of employability delivered through the VM, the methodological approach sought to gain insights into the factors which influenced whether and how students learned. The methodology was thus concerned with the causes and effects governing these students' engagement with the subject matter.

The focus of research on the issue of how employability is experienced by students necessitated that within an essentially mixed approach to data (quantitative and qualitative) the qualitative aspect predominated, since the aspects of self-efficacy, confidence, self-theories, reflection, which characterise an employable graduate and which the VM aims to emphasise, do not lend themselves to measurement. These more complex aspects of employability concerning the self and the personal dimension of learning (Kumar, 2007) are much more suited to exploration through interpretative, qualitative approaches and this was reflected in the methodological approach of this study.

The methodology adopted utilised a mixed approach, in which both quantitative and qualitative methods were used. Within an explanatory case study approach (Yin, 1994), quantitative data was gathered in order to highlight some key phenomena in the students' experience of the VM. These phenomena were then further explored in more depth through a qualitative method – focus groups – in order to gain insights into the way students experienced the learning environment.

The choice of explanatory case study was further determined by the kinds of questions which the evaluation was asking:

- How do students interact within the VM and what stops them from interacting?
- How do students learn employability skills from the experience?
- How does the VM prepare students for the world of work?

The case study approach further focuses on studying a particular culture or "bounded system" (Creswell, 2007, p. 73) and the issues which arise within this system. With its highly specific, bespoke rules of interaction and business exchange, the VM presents us with a bounded system, which could successfully be studied through the case study approach. The specific tools of interaction used, such as "squids" instead of real money, the regulations for trading and the restrictions on approaching external companies, are all necessary and an integral part of the VM environment. This is what defines the VM environment as a "case" or a "bounded system" (Creswell, 2007).

As is characteristic of the case study approach, data were collected from multiple sources in order to give a comprehensive picture of the student experience of the VM. Data gathering included:

- *A survey questionnaire.* This was distributed to the Business and Technology students taking VM modules at levels 4, 5 and 6. A total of 49 students responded to the questionnaire which constitutes 1/4 of the student population undertaking VM modules. The survey questionnaire sought students' views of their motivation, aspects of autonomous learning, assessment, enterprise and employability skills, the sustainability of the VM over three years.

- *Focus group interviews*. Four focus group interviews were carried out with VM students. The student responses to the survey questionnaire highlighted key areas of interest which were used as the basis for constructing semi-structured, focus group interview schedules. Three of the four focus groups were carried out with students on the Business and Technology course, with each representing a level of study. The fourth interview was with a cohort of second year Sports Science students. Their views were taken to represent those of students coming into a business module from a course which was not directly related to business. A total of 17 students took part in the focus group interviews.

- *Students' written reports*. Six student reports were analysed (two from each level). The purpose of this content analysis was to search for content which would triangulate or supplement the focus group interview data and the survey questionnaire data.

- *Assessment tools used within the module.* These included assessment briefs given to students, module descriptions and assessment sheets showing the percentage weighting of the final assignment as well as the assessment descriptors. Some of these tools were also used to stimulate discussion within the focus groups, where students were asked to actively comment on these.

- *Discussions with the module leader.* While the focus of the study was the student experience of the VM, part of the preparation for the interviews with students involved discussions with the module leader. The purpose of these discussions was to give an idea of the way the pedagogic interactions were designed and the

way they were intended to work by the tutor. In this way, having the point of view of the tutor made it possible for the researcher to conduct a richer and more fruitful discussion with the students. The tutors' point of view does not figure in the findings section of this paper, as the focus of the paper is on students' experiences of the module. The consultation with the tutor was used to prepare the researcher more fully with the necessary understanding of the way the module was intended, rather than as an indication of the tutors' experience of teaching the module.

These multiple sources of information helped to construct a rich understanding of why students experienced the VM in the way in which they described. Having such an understanding made it possible to draw out the lessons learned and make these available for more general use by a broader audience than the immediate VM.

The data analysis involved several key steps, as described by Bassey (1999):

- generating and testing analytical statements;
- interpreting or explaining the analytical statements; and
- deciding on the outcome and writing the case report.

A form of thematic analysis was applied in which the initial analytical statements emerged from an initial analysis of the survey questionnaire data. The qualitative data and documentary evidence were then searched, coded and interpreted looking for cause and effect relationships in participant learners' behaviour.

4. Research findings

The online survey distributed to students asked respondents to comment on their perceived motivation in engaging with the VM. Specifically, students were asked to identify how motivated they felt they were within their company or role. Students' responses were mixed, yet generally positive, with over half of all respondents within each level of study defining themselves as being highly motivated or motivated (Figure 1).
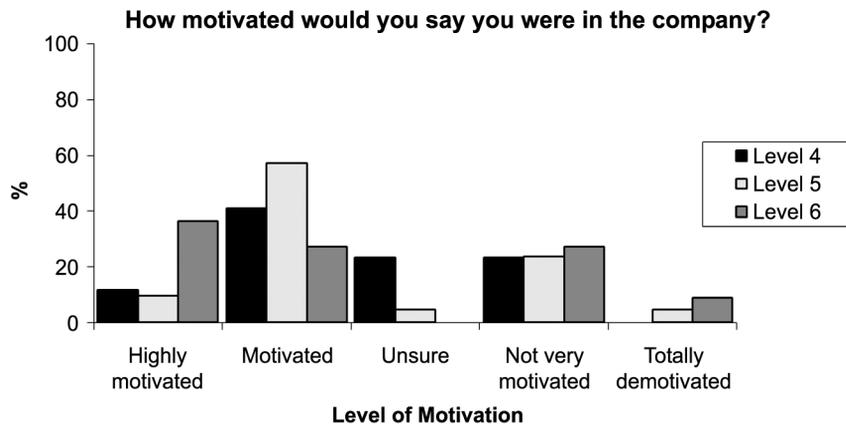

Figure 1.
Levels of motivation

However, following from exploring their personal levels of motivation, the survey inquired into student perceptions of commitment, asking whether respondents felt that everyone within their company committed themselves equally to the work. These questions sought an understanding into how well students felt they worked collaboratively and whether this collaboration impacted on their engagement. Responses varied considerably between the three levels of study. As is evident from Figure 2, the perceived level of commitment from students was highest in first year students, was considerably smaller in year 2 and worst at year 3, where 55 per cent of students felt not everyone committed themselves equally to the company.

There were several key factors which students identified as having a negative influence on their motivation. Over half of third year students felt that not everyone was interested in the project and that this explained low levels of commitment. A lack of clarity in their role was seen to be a major factor by second year students.

These mixed feelings on the side of students regarding their own commitment as well as regarding their fellow students' commitment and engagement in the VM made it necessary to identify instances of good practice, where the VM initiative had been successful in engaging students and where they had demonstrated deep learning. The qualitative focus group interviews set out to understand what engaged these students most successfully. Since an average of 61 per cent of the students interviewed indicated they were motivated it was necessary to explore what contributed to their engagement, in order to foster such practices and build on them.

4.1 Students working interdependently

One of the most important features of the VM is the interdependent way in which students are expected to work. In the majority of cases the success or failure of the venture was dependent on how effectively student groups and individuals collaborated with each other. Many students described that such interdependence was challenging as it placed a significant responsibility on them, as well as meant a certain degree of risk taking in having to trust individuals they knew very little about. Despite these difficulties however, the students in the Level 5 sports cohort pointed out that the group work element within the VM was quite significantly different from their experience of group work within the rest of their course:
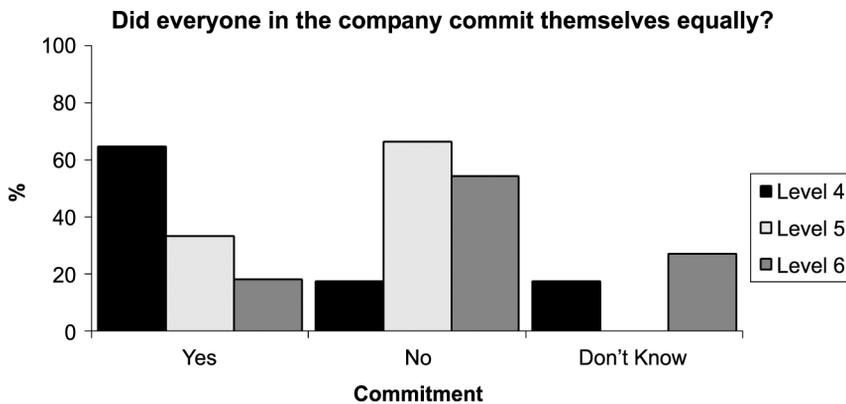

Figure 2.
Levels of commitment to
the student-initiated
company

Example 1: Second year sports science students

> *Student 11*: Because I suppose in our group we all obviously worked together we didn't have to operate with other course teams and people from different courses. And meet other people's deadlines.

> *Student 10*: The matrix (VM) allows you to do that, it s aimed at that really.

> *Researcher*: Is that more difficult? Is it more challenging to do that, when other people's work depends on you?

> *Student 11*: It makes things more realistic because say if we mess up and don't meet a deadline we know it is going to affect other people's work as well. Especially when you think that some people's dissertations are being written on what we are doing . . .

As these students described, the interdependent way in which they had to work meant that they had to depend on others as well as take responsibility for delivering work to other student groups. Having the knowledge that the quality of their work would directly affect the work and success of others seemed to make these students feel responsible and encourage them to commit to the work more fully. The following is a similar example.

Example 2: Second year student:

> *Student 7*: I think any risk I felt was because of the third years – we were doing real work for them for their real projects and there was a risk in us saying we would do this for a certain deadline when we have all this other work as well or we are trying to do our work. I think if we hadn't done it I would have felt quite bad.

It is evident that this interdependent way of working engages students in reflection – in this situation they had to consider the broader impact of their work on others, which conversely encouraged them to strive to achieve better results. In addition, as the students in example 1 identified, this way of working made the experience "more realistic", in other words closer to the way the real world of business operates, where interdisciplinary teams, working in different companies depend on each other in order to meet a shared goal and where the need for an essential feeling of trust amongst collaborators is paramount. This was one aspect of the evidence gathered through this research which indicated that a realistic experience, one which was close to the reality of the world of work, encouraged students to engage, as well as got them to reflect deeply on the impact of their work on others.

The research evidence further suggested that this interdependent way of working encouraged students to consider the importance of honesty and trust in business relationships. Within the focus group interviews students discussed how they naturally started to look for ways in which they could establish trust and build more lasting and successful collaborations. The following are a few examples of this.

Example 1: Second year student

> *Student 4*: I also thought it would have been a better idea if they (first year students) actually worked with you and once you've employed them to be a part of our group as opposed to just contacting them asking them to do something and they send it via email. So they'd work with

us as a group rather than them being on their own. Because when you're employing someone they are working with you, not in a different room at a different time.

Example 2: First year students

Student 1: We did work on contract by contract basis but we worked for them 3 or 4 times and there was a definite relationship there. They became far more comfortable with the work we were doing.

Student 2: And they trusted us with what we were doing.

Student 1: Which was quite good, and I think that would probably be quite a good idea.

These two examples evidenced the growing need to develop opportunities for more lasting and secure working relationships, both on the side of second year students who were contracting the first year students, and on the side of the first year students. The second year students emphasised the need for a shared working space and for longer term contracts for first year students. The first year students commented on how working for a specific employer also meant having to earn their trust; once earned, such trust impacted positively on the working relationship.

On both sides therefore we saw a growing awareness of the value of trust in business and conversely in the value of honesty in the working relationships. This is important for these students' employability since the latest CIHE report on employers' needs highlights honesty as one of the most desirable employability characteristics in graduates (Archer and Davison, 2008). It is the collaborative, interdependent way of working which made it possible for these students to experience the value of trust and honesty in business.

4.2 Developing metacognition through engaging in enterprise

The qualitative research data highlighted the aspects of student activity within the VM which encouraged students to reflect, forward plan and think strategically – activities which Yorke and Knight (2006) collectively describe as metacognition, an indelible part of a learner's employability. In order to identify reflective activity in students, the survey questionnaire responses were analysed looking for skills which students perceived they had learnt through the VM and activities which they considered most valuable. One such skill was the ability to negotiate. An average of 69 per cent of students across all three levels of study indicated they had gained negotiation skills through participating in the VM. Students had many opportunities to negotiate within the VM, including negotiating the terms of contracts with employers or employees, the price of a service, or the deadline for delivering the work. However, engaging in the act of negotiation does not necessarily mean that learning has taken place. Thus, the focus group interviews built on this quantitative data and sought to explore what students had learned from the process of negotiation. The following comment illustrates one student's developing thinking regarding the negotiation tactics he adopted.

Second year students

Researcher: Did you feel rewarded once you had been successful in that process (negotiation)?

Student 6: I feel like the tactics that I used worked, I think, I'm not sure that it was the best way to go about it but.

Researcher: Why not?

Student 6: Because it might have been not customer focused enough. They might have felt like they didn't get as much of a good deal so in the future they might not come back to us. So maybe we got the short term payout but the long term payout isn't in our favour because of the tactics that we adopted.

It was evident from his description that the student had reflected on the approach he adopted in negotiation. This student had thought not only about how successful the approach was in the short term but also weighed out the possibility that a "hard-nosed approach" (Student 6) as he described it, could have potentially turned these customers away from using his services in the long term. This was evidence that the student was thinking in a customer-focused way and applying this thinking in practice. In addition, in planning for the long term, the student was applying metacognition, as described in the USEM model as an essential element of graduate employability (Yorke and Knight, 2006). The following is another example of a situation within the VM in which students naturally engaged in reflection.

First year students

Student 1: I think it is the communication between all the different ventures, you have to be very clear as to what you want, you have to make it about exactly what needs to be said.

Student 2: Otherwise they don't understand it. And you have to simplify what you mean to make sure they understand it.

Researcher: So have you had an experience where if you have not been clear there have been issues?

Students 1 and 2: Yes.

Researcher: Tell me about this.

Student 2: We contracted out some people to do some research for us and we asked them to tell us where and when they were going to be doing this research. We also reiterated this in the email we sent afterwards and half got back to us saying where they were going to do it and half just did it and ignored what we had asked.

Student 1: They said it wasn't clear. So you just realise how you have to keep reiterating sometimes.

These first year students drew important lessons from the experience, regarding the need to be clear and concise in their business communications. Undoubtedly, given their reflective attitude to the issue they encountered, these students would be able to use the lessons learnt and perfect their communication skills further.

It is further necessary to notice these students' enthusiasm in speaking about the processes of negotiation or those of clarity in communication. Essentially, this enthusiasm could be put down to the fact that the negotiation and communication skills which students practiced are something which students would be able to take

away from the experience of working in the VM and apply in the real world. The
perceived value of what is being learned grows significantly when the experience feels
realistic to students. The following is another example which reinforces this point.

Third year student

> *Student 17*: And it is something more real to talk about – you are saying "I've done a piece of
> coursework and we were made to make a system and we were made to work together" but if
> we say "look we got it on our own backs to find work and do professional work for these
> people, we have secured contracts, we have fulfilled the contracts we have had good reports at
> the end", then it is kind of more realistic if you see what I mean.

> *Researcher*: Would you feel more confident going into an interview having done this?

> *Student 17*: Yes, I'd rather reference stuff done in this than reference a piece of coursework
> I've done or an essay I've written. I am guessing everyone who turns up for an interview says
> I've done this I have written an essay or made a presentation but when you say look we have
> actually made a business and sold some stuff – it is quite good.

Similarly to the research carried out by Tomlinson (2008), it is evident that the student
realises the value of the experience as something that would give him a competitive
advantage. This is a very good example of how the student starts to realise the
transferability of the skills he has gained to the real world. While the skills he spoke
about were gained in a university setting the learner is more readily able to make the
connection of how they would be valuable in the eyes of an employer, when presented
at a job interview or within a CV. Realising the transferability of his skills is an
important step towards being able to effectively articulate these, which is one of the
most significant challenges facing employability pedagogy (Little *et al.*, 2003).

4.3 Activity which impacts on students' efficacy beliefs
Another aspect of student learning which contributed to their engagement and
motivation was activities which contributed to building up students' confidence. This
was particularly crucial for first year students, who may have had little previous work
experience. Participation in an, albeit simulated, business world, opened many
opportunities for these learners to acquire basic employability skills.

The focus on students developing confidence through participating in the VM
originated from the survey questionnaire data. The following is one example.

First year student:

> Other benefits from the Matrix were basically meeting new people and increasing my
> confidence due to that fact, I had to communicate with others who I have never met before.

In addition, when asked to specify which skills of an entrepreneur students felt they
developed most fully, the responses for "confidence" as an attribute were selected by
more than 50 per cent of Level 4 and 5 students, and 45 per cent of Level 3 students
which is a relatively high percentage for each of the 3 levels of study (see Figure 3).

On this basis, the focus group interviews explored the kinds of activity which gave
students more confidence. The factor which primarily related to students gaining more
confidence in their work was external feedback, received from clients. From students'

Which characteristics of an entrepreneur do you feel the Ventura Matrix has helped you develop?
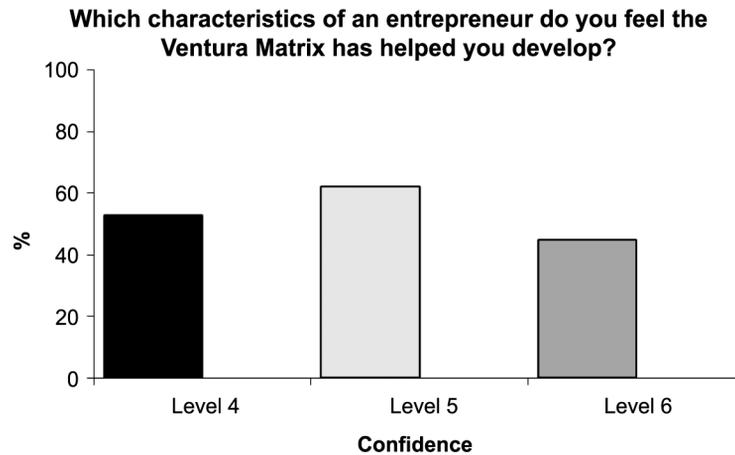
responses it became clear that they highly valued actionable feedback which was detailed and made suggestions for improvement. The following example illustrates this point.

Level 4:

> *Student 1*: We got feedback recently from Y (client) which was very useful. He actually highlighted the points which were good in our presentation and pointed out where to improve on it. He suggested for instance that at the end of it we should always say how valuable what we have done is, how it will help him and what we would suggest we do next and we could possibly do that work for him. We always thought that might be a bit cheeky, but he said no, that's what you should do. So it was quite interesting to get his feedback. In general the rest of the feedback was "it was good", "it was ok".

> *Student 2*: Yes they were generally happy.

> *Student 1*: Yes but he left feedback which was quite in-depth which was good to read wasn't it. It was quite useful. I think that is something which can be improved as well that people could be more encouraged to leave detailed feedback as to what was useful, what was good, what you could do to improve it.

One noticeable aspect was how much influence feedback coming from a client had on students. A client could offer detailed observations on students' professional performance and make suggestions for improvement. Through feedback, the client was further able to encourage students to foreground their achievements through the skills and attributes these students had demonstrated. It was evident that students initially felt shy to emphasise their own strengths commenting it was "a bit cheeky". The client's feedback in this case acted to encourage them to get over such inhibitions, which in turn would contribute to students' ability to articulate such strengths, skills and attributes when writing a CV or in an interview situation. As research literature emphasises, one key challenge of preparing graduates for employment is in supporting students in articulating their employability (The Pedagogy for Employability Group,

2006; Little *et al.*, 2003). In these terms the client's feedback and direction to students worked to support them in being able to articulate employability skills and attributes – their "selling points" – in an interview.

There were several examples in the data which clearly demonstrated the advantages and the educational potential which client feedback could have. For the learner participating in a work related learning scenario, the highest praise would come from the clients, who are the learner's primary link to the real world of business. Within an educational context, it is possible to see this as the responsibility of clients contracting students: to provide feedback which students can act on as well as draw on in their future career development.

5. Conclusions

5.1 Learning transferability and articulating skills
There was significant research evidence to illustrate that in engaging in realistic work related activity (negotiating contracts and prices, having to deal with complexities in communication, having to establish trust with those they collaborated with) students demonstrated deep reflection which involved elements of forward planning and strategic thinking. This showed students were relating the skills and attributes they had acquired to CV writing or job interview scenarios, with some examples of cases where students said they would be more inclined to reference the experience of enterprise they had in the VM within an interview situation more so than any other experience while at university.

In these terms the most significant value of an experience embedded within the real world of work, albeit a simulated one, proved to be in the positive influence it had on students' ability to both articulate the skills and knowledge they had as well as to see how these are transferable to the work environment. These findings relate strongly to the current direction which the employability pedagogy debate is starting to take – where emphasis is placed on students learning to transfer these skills to the work environment and learning to articulate these skills (The Pedagogy for Employability Group, 2006; Little *et al.*, 2003). The evidence in this research can therefore serve as a benchmark for further enquiry and developmental activity in the area of teaching transferability to students through exposing them to real world experience, as well as teaching students how to articulate their employability. In addition, the findings suggest a direct link between real world experiences and learning transferability, which could be explored further in terms of how this can be fostered, operationalised and optimised when delivered as part of work-based/work-related programmes of study.

5.2 Effects of employer feedback on students' efficacy beliefs
Other positive outcomes related to students' enhanced confidence. This was evident particularly as a result of receiving positive client feedback. Such client feedback encouraged students to place an emphasis on their strengths and abilities rather than solely reflecting on their weaknesses. This would in turn contribute to students' ability to articulate such strengths within a CV or in a job interview. In addition, the sense of accomplishment which students spoke about was a result of working and learning in a situation which allowed them to produce outcomes similar to those required in the real world of business. The value of these experiences, both in enhanced reflection and

confidence, is acknowledged in research literature which places a firm emphasis on metacognition and self efficacy as the building blocks of learner employability (Yorke and Knight, 2006).

In light of these findings it is necessary to emphasise that the positive effect of contact with an employer on students' efficacy beliefs is highly important and needs to be fostered as a learning strategy within work related leaning programmes. This is similar to the way work based learning programmes acknowledge the role of the workplace supervisor and their feedback to the placement student (Evans *et al.*, 2006). The opportunities within work related learning programmes for an employer to engage more fully within the feedback and assessment processes at university need to be given further and fuller consideration. The positive influence of such intervention on students' efficacy beliefs needs to be emphasised and explored further.

5.3 Interdependence as pedagogy for employability

Besides through encouraging the development of essential employability skills and attributes, there was another crucial aspect of the VM learning environment which, it can be argued, contributed significantly to learner engagement with the employability learning content. The interdependent way of working which the VM required, acted to integrate the learning experience across levels and subjects of study as well as equipped students with some key employability skills and attributes. As evidenced in the research data, students demonstrated taking fuller responsibility for the outcomes of their work where other people's work and success depended on it. As research literature discusses, taking responsibility is a form of autonomous behaviour (Fazey and Fazey, 2001), which demonstrates the positive effects of an interdependent way of working on these learners' autonomy. More importantly, students demonstrated an understanding of the importance of trusting others and the value of honesty in a business world. Such understanding was also a result of having to work in an interdependent way. It is an important aspect of enhancing students' employability, as employers place honesty high on their list of desirable employability characteristics of a graduate (Archer and Davison, 2008). Interdependence therefore can be seen as an approach to learning design which works to enhance some of the key employability attributes in students.

The other significant way in which an interdependent way of learning contributed to students' employability was through integrating the experience across levels and subjects of study and thus integrating it into the holistic HE curriculum for these learners. Within the VM, students' success depended on establishing routes of collaboration and negotiating liaisons and partnerships with other students themselves. Collaboration amongst first, second and third year students was not only encouraged but essential to students' success. The value of such interdependence, beyond the immediate skills and attributed already discussed, was in the integrated way in which this employability activity was delivered to students – first year students had to approach second year students in order to find work. Simultaneously they were able to see how their work impacted on second year students' work and consider how they would have to act in their following year in order to ensure success. Similarly, second year students had a chance to learn from their interactions with the third year students and anticipate and plan ahead their strategy for their final year projects. It is natural that this way of working would give students the ability to

anticipate their way of working in the following year as well as see why their contribution is necessary and valuable, both within the VM world and if transferred to the real world of business. Arguably, where students see the value of their work, their engagement would improve as well which responds to some of the fears of lack of engagement with employability content discussed by Rae (2007). In addition, the fact that students at different levels work in a close and interdependent way, makes it possible for them to learn from each other which encourages constructivist, self directed approaches to learning and assessment (for example self and peer assessment and feedback, etc.) associated with and highly desirable in an employability learning context (Knight and Yorke, 2003). This way of learning works to integrate the employability experience for students, in the way which Rae (2007) describes and recommends.

In these terms the interdependent way of learning demonstrated in the VM model, offers more than collaborative activity – it is an integrative way of delivering employability to students which directly influences their employability skills and attributes. The multifaceted, positive outcomes which such an approach delivers (bringing together students from different levels of study and different disciplines), makes it necessary to consider the interdependent way of working/learning as a valuable constituent part of employability pedagogy. As this paper has argued, such interdependence in working and learning mimics the real world of work. Further research is necessary regarding how this can be optimally implemented within the taught higher education curriculum, how it can be designed to work with multiple disciplines and where the anticipated challenges lie.

References

Archer, W. and Davison, J. (2008), *Graduate Employability: The Views of Employers*, The Council for Industry and Higher Education, London.

Bandura, A. (1997), *Self-efficacy: The Exercise of Control*, W.H. Freeman, New York, NY.

Bassey, M. (1999), *Case Study Research in Educational Settings*, Open University Press, Maidenhead, Philadelphia, PA.

Boud, D. and Walker, D. (1990), "Making the most of experience", *Studies in Continuing Education*, Vol. 12 No. 2, pp. 61-72.

Creswell, J. (2007), *Qualitative Inquiry and Research Design: Choosing among Five Approaches*, 2nd ed., Sage Publications, London.

Dacre Pool, L. and Sewell, P. (2007), "The key to employability: developing a practical model of graduate employability", *Education + Training*, Vol. 49 No. 4, pp. 277-89.

Duffy, K., Anthony, D. and Vickers, F. (2008), *Are E-portfolios an Asset to Learning and Placement*, ASET: The Placement and Employability Professionals' Body, Sheffield.

Dweck, C. (1999), *Self-theories: Their Role in Motivation, Personality and Development*, Psychology Press, Philadelphia, PA.

Evans, K., Hodkinson, P., Rainbird, H. and Unwin, L. (2006), *Improving Workplace Learning*, Routledge, London.

Fazey, D. and Fazey, J. (2001), "The potential for autonomy in learning: perceptions of competence, motivation and locus of control in first-year undergraduate students", *Studies in Higher Education*, Vol. 26 No. 3, pp. 345-52.

Harvey, L. (2001), "Defining and measuring employability", *Quality in Higher Education*, Vol. 7 No. 2, pp. 97-109.

Knight, P. and Yorke, M. (2003), *Assessment, Learning and Employability*, Society for Research into Higher Education and Open University Press, Maidenhead, Philadelphia, PA.

Kumar, A. (2007), *Personal, Academic and Career Development in Higher Education: SOARing to Success*, Routledge, London and New York, NY.

Little, B., Connor, H., Lebeau, Y., Pierce, D., Sinclair, E., Thomas, L. and Yarrow, K. (2003), *Vocational Higher Education – Does it Meet Employers' Needs?*, Learning and Skills Development Agency, London.

Moon, J. (1999), *Reflection in Learning and Professional Development: Theory and Practice*, Kogan Page, London.

Nicol, D. and Macfarlane-Dick, D. (2006), "Formative assessment and self-regulated learning: a model and seven principles of good feedback practice", *Studies in Higher Education*, Vol. 31 No. 2, pp. 199-218.

(The) Pedagogy for Employability Group (2006), *The Pedagogy for Employability Group Pedagogy for Employability*, The Higher Education Academy, York.

Rae, D. (2007), "Connecting enterprise and graduate employability: challenges to the higher education culture and curriculum", *Education + Training*, Vol. 49 Nos 8/9, pp. 605-19.

Tomlinson, M. (2008), "The degree is not enough: students' perceptions of the role of higher education credentials for graduate work and employability", *British Journal of Sociology of Education*, Vol. 29 No. 1, pp. 49-61.

Watts, A.G., Law, B., Killeen, J., Kidd, J. and Hawthorn, R. (1996), *Rethinking Careers Education and Guidance: Theory, Policy and Practice*, Routledge, London.

Yin, R. (1994), *Case Study Research: Design and Methods*, Sage Publications, London.

Yorke, M. and Knight, P. (2004), "Self-theories: some implications for teaching and learning in higher education", *Studies in Higher Education*, Vol. 29 No. 1, pp. 25-37.

Yorke, M. and Knight, P. (2006), *Embedding Employability into the Curriculum*, The Higher Education Academy, London.