

Embedding employability behaviours

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Embedding
employability

35

Abstract

Purpose – The purpose of this paper is to look at how employability is currently embedded within courses to prepare students for their transition into the world of work, identifying the teaching and learning strategies employed.

Design/methodology/approach – A review of the relevant literature was conducted. The study analysed experiential data and the logged reports of student work placements over a period of five years, to determine the relationship of such placements to both academic results and long term employability. The study considered placements from the viewpoints of the university, students and employers. It proceeded to look at the current embedding of employability within the teaching curriculum, specifically teaching and learning strategies for personal professional development courses and the employability passport. It also looked at the role of the work placement tutor.

Findings – The main revelation was that the employability skills sought by employers were mostly “soft” and therefore behaviours, rather than “hard” teachable skills, which has significant implications for the introduction of the teaching excellence framework (TEF) and the provision of suitable metrics.

Research limitations/implications – The study and findings are limited to a single university in the UK.

Originality/value – The results of the study and conclusions drawn from the analysis of findings, led to the identification of the student, institution, tutor, employer) quartet of actors for employability. The paper also postulates the ramifications of the introduction of the TEF on employability.

Keywords Employability, 4SITE, Student work placements, Teaching and learning strategies, Teaching excellence framework (TEF)

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Introduction

The aims and objectives of this study were to look at how employability is currently embedded within courses to prepare students for their transition into the world of work or postgraduate study, identifying the teaching and learning strategies employed. The study then proceeded to investigate the actual employability skills attained and desired, from the perspectives of the university, students and employers. It also considered the roles of the work placement tutor and the quartet of employability actors. This paper gives a brief review of the relevant literature, it describes the methodology employed, the results of the study and conclusions drawn from the analysis of findings, thus presenting the student, institution, tutor, employer (4SITE) quartet of Employability actors. It also postulates the ramifications of the introduction of the teaching excellence framework (TEF) on employability.

Literature review

The main focus of this paper is the reporting and analysis of actual employability practice, rather than the discussion of the theory of employability and student work placements,

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essentially experiential learning. However, a short review of the relevant literature is conducted, beginning by looking at a brief history of cognitive development, before considering employability and theories of experiential learning.

A brief history of theories of cognitive development

Theories of cognitive development are often central to current teaching and learning practices, but on an implicit or subliminal level. Arguably the two most influential theories are those of Piaget and Vygotsky (Graham, 2002).

Piaget's theory is based upon the notion that "all children pass through a series of stages before they construct the ability to perceive, reason and understand in mature rational terms" (Wood, 1998, p. 43). The approach of Piaget with its emphasis on the active, constructive nature of human development is often referred to as being "constructivist" (Cortazzi and Hall, 1998, p. 39).

The theory's main focus is on the relationship between biology and knowledge, and suggests that all individuals tend to systematise and combine processes into coherent logically interrelated general systems (organisation), and to adjust to the environment (adaptation) (Biehler and Snowman, 1997, p. 49). There are four stages to Piaget's cognitive development (Biehler and Snowman, 1997, pp. 52-57): sensorimotor, preoperational, concrete operational and formal.

Many criticisms of Piaget's work (Tennant, 1997, pp. 66-68) are on conceptual as well as methodological grounds:

Experiments are badly controlled and incompletely reported. Additionally, he is said to have a tendency to over-interpret his data and to leave large gaps between his theory construction and empirical findings that he is writing about (Tennant, 1997, p. 66).

Two further criticisms (Tennant, 1997, p. 66) which are core to the theory are:

- (1) the tension between two features of Piaget's theory – his structuralism and his constructivism; and
- (2) the adequacy of formal operations as a complete account of mature, adult thought.

The latter criticism is of particular relevance to employability and the involvement of mature, adult thought and the assimilation of experience. Basseches (Tennant, 1997, pp. 66-67) suggests that structuralism (not constructivism) dominates in Piaget's work. Additionally, there is no further structural change after the attainment of formal operations. Formal operational thought is a closed system structure which can assimilate any experience. According to Basseches, this example implies that the dialectical interplay of assimilation and accommodation ends with formal operational thought, this view however Basseches, Riegel, Buck-Morris and others reject (Tennant, 1997, p. 67).

Labouvie-Vief and Riegel (Tennant, 1997, pp. 67-68) suggest that formal operations have been deemed to be limited by its abstractness and removal from everyday problem posing and solving. It is thus considered to be a type of reasoning which is correctly applied to a very narrow range of problems, but which can play only a subordinate role in efforts to solve the concrete problems of adult life.

The greatest criticism is in on ideological grounds, that Piaget's invariant and universal sequence of stages leading to mature formal operational thought and the apparent disregard for psychological phenomena which defy structural analysis (feelings, beliefs, for instance). According to Broughton (Tennant, 1997, p. 68) Piaget's theory is portrayed as being an outgrowth of liberal ideology.

Vygotsky theory agrees with Piagetian theory in some important respects, particularly an emphasis on activity as the basis for learning (although there are crucial differences in

what each believes is the essential nature of this) and for the development of thinking. It differs in the assumptions made about the relationship between talking and thinking, and the significance placed on the role of communication, social interaction and instruction in determining the path of development (Wood, 1998, p. 37). This approach is often referred to as “social constructivism”, which stresses the role of social interaction and cultural practices in shaping the course of human development (Wood, 1998, p. 39).

Vygotsky was more of an interventionist in his view of the teacher’s role and advocated pupils learning directly from the teacher. Central to Vygotsky’s theory is the zone of proximal development (Sutherland, 1992, pp. 43-44), that for a given child, the child is at present at a level x . The child has the innate or environmentally derived potential to reach a level $x+1$. The area in between x and $x+1$ is the zone of proximal development.

Children of approximately the same ability may differ in the areas (or sizes) of their zones of proximal development. A child with a large zone will have a much greater capacity to be helped by a teacher than a child with a narrow zone.

How the individual child learns to think is done by a three stage process of internalising external and social activities and making them part of his or her own mental structures (Sutherland, 1992, pp. 45-46):

- (1) assistance is provided by more capable others, e.g. teacher or more able peer;
- (2) assistance is provided by the child him/herself by talking aloud in order to solve problems; and
- (3) internalisation of the concept (linguistic dialogue into thought).

Scaffolding is a metaphor for the concept of teaching and learning. Vygotsky saw learning as a process of internalising social concepts through the use of appropriate language and shared action. Teaching is seen as a collaborative process in which the teacher provides needed information and demonstration, which may be just beyond (but not too far removed from) learners’ current independent thinking or action, within this area of learning (the zone of proximal development) is where teaching is most productive because this is effectively the frontier of learning and independent thinking for the learner. The challenge for teachers is to ascertain this zone for particular learners, with the help of relevant scaffolding (Cortazzi and Hall, 1998, p. 19). The teachers initially provide a great deal of guidance and support (scaffolding), and gradually encourage learner autonomy by incrementally removing this scaffolding.

Cognitive development does not happen in isolation from other evolving functions, but occurs interactively with personal and social development. Other theories of personal and social development, such as those of Prawat (Bloor, 2001, p. 17) who suggested the term “dispositions” to categorise various aspects of social development such as attitudes, values, affect, interest and sense of identity. Dispositions, according to Prawat determine whether an individual will value a particular form of knowledge or educational experience; therefore implying that cognitive development and thereby knowledge itself is inherently dispositional.

Kohlberg was concerned particularly with the ethical dimensions of personal and social activity. His six stage theory of moral reasoning (Slavin, 1996, p. 59) is an elaboration and refinement of Piaget’s theory. Kohlberg studied how children and adults reasoned about rules that govern their behaviour in certain situations, by probing their responses to a series of moral dilemmas (hypothetical situations that require a person to consider right and wrong). Kohlberg theorised that people progress through three levels as they develop abilities of moral reasoning, each level having two stages. He later suggested that stages 5 and 6 were not really separate and that the two be combined (Slavin, 1996, pp. 58-62). Kohlberg’s stage one (punishment and obedience orientation) is akin to Piaget’s stage of heteronomous morality, and Kohlberg’s level two (conditional level) has much in common with Piaget’s stage of autonomous morality.

Erikson's main concerns were with aspects of maturity and autonomy, his theory of personal and social development (Slavin, 1996, p. 51) is similar in part to the developmental theories of psycho-analysis and deterministic stages, proposed by psychiatrist Sigmund Freud. Because Erikson's work relates to principles of psychological and social development, it is often called a psychosocial theory. Erikson hypothesised that all individuals pass through eight psychosocial stages in their lifetimes. At each stage there are psychosocial crises (a psychosocial crisis is a set of critical issues that individuals must address as they pass through eight life stages) which must be resolved satisfactorily in order for an individual to take on new challenges, although some individuals do not completely resolve these crises and continue to deal with them in later life, e.g. "identity crisis" of adolescence.

Perry's research was directed at the epistemological basis of students' learning experience. Perry's theory (Perry, 1970, pp. 12-14) relates to an attempt to give an account of how US college students construe the nature and origins of knowledge, of values and of responsibility. The theory presents a nine stage sequence of development for understanding the meaning of students' educational experiences. Students may exercise conditions of delay, deflection and regression for these nine positions. The developmental scheme was established by analysis of interviews with college students; it clarifies the increasingly complex ways that students use to construe the nature of knowledge and learning.

Using a Vygotskyian framework, Billett (1996, pp. 141-142) examines how different forms of vocational knowledge are constructed from social sources (history, community and ontology), and helps to explain the limitations of transfer and the need to conceptualise expertise at a particular community of practice. Billett (1996, pp. 141-143) uses the terms cognitive structures, prepositional knowledge, procedural knowledge and dispositions.

Ackermann (1998) considers some newer trends in cognitive development, in particular the impact of post-Piagetian research and the questions and challenges her selected researchers raise. Ackermann's (1998, pp. 376-377) "metaphors of the mind" refer to new conceptual tools and models proposed within their own explanatory principles as to how minds work, cohere, and grow.

Ackermann's (1998, pp. 377-378) three "challenges" to classical Piagetian theory:

- (1) from stages to styles;
- (2) from decontextualised to situated knowledge; and
- (3) From domain-specific to domain-general knowledge.

Weinert and Helmke's work (Ackermann, 1998, p. 381) on the role on individual differences in cognitive development, in which the authors claim that the field of developmental psychology abounds with techniques designed to wipe out individual differences. They suggest that preferred methods are cross-sectional studies, preferred techniques are mean differences to aggregate data, and preferred objects are context-free competencies (logical thinking).

Hettich (1998) develops a cognitive-structural interpretation of development, in which he stresses the point made by Chickering and Reisser (Bloor, 2001, p. 13) that cognitive development occurs interactively with social development. Hettich's (1998) suggests seven "vectors (maps) of development", from developing competence to developing integrity.

King and Kitchener (Hartley, 1998, pp. 48-51), group Perry's nine positions into four categories: dualism (positions 1 and 2); multiplicity (positions 3 and 4); relativism (positions 5 and 6); and commitment in relativism (positions 7-9). Their model both incorporates Perry's framework and John Dewey's concept of reflective thinking as the evaluation of potential solutions to ill-structured problems. A reflective thinker is said to be one that understands that problem solving involves uncertainty but formulates a solution based on evidence and critical enquiry.

King and Kitchener's seven stage model describes "changes in assumptions about sources and certainty of knowledge and how decisions are justified in light of those assumptions". The stages are organised into: pre-reflective thinking (stages 1-3); quasi-reflective thinking (stages 4-5); and reflective thinking (stages 6-7). King and Kitchener (Hartley, 1998, p. 51) make seven suggestions for promoting reflective thinking in students.

Baxter Magolda (Hartley, 1998, p. 52) established a framework for knowing, she investigated gender-related patterns and conducted follow-up studies in workplace and post-baccalaureate settings. Her methodology included typed interviews and the measure of epistemological reflection, which addressed six domains of knowing: the nature of knowledge; decision making; evaluation of learning; and the roles of the learner, instructor and peers. From Magolda's analysis of the data came four levels of knowing: absolute knowing mastery, transitional knowing, independent knowing; and contextual knowing. Gender-related patterns of knowing were found in the first three levels. Magolda also identified five teaching implications (extensions of contextual knowing) from these levels.

Ackermann (Bloor, 2001, p. 17) has argued that, with few exceptions, little attention has been paid to the importance of acknowledging individual differences in theories of cognitive development, adding that the methodology of research on cognitive development abounds with techniques designed to wipe out individual differences. Cognitive development occurs within a social context, and there is an interaction between cognitive development, social context and the psychosocial development of the individual learner. Individual differences in learners affect and interact with cognitive development, these differences need to be taken into account when planning and designing learning activities. There is a range of such individual differences and diversity of theoretical approaches to classifying them. Hartley (1998) gives a good introductory overview of these variables, identifying ways in which students might demonstrate diverse psychological characteristics, in terms of learning styles and strategies of individual preferences. A number of practical suggestions are also put forward to help teachers respond more accurately to the needs of their students. Hartley's (1998, p. 47) four categories of individual differences are:

- (1) fundamental differences, in the sense that these are very hard to alter;
- (2) cognitive styles, these are ways in which different individuals characteristically approach different cognitive tasks;
- (3) learning strategies, these are ways in which individuals more consciously select methods of approach; and
- (4) preferences, these are less serious ways in which individuals differ.

A goal of education is the development of student autonomy, to make students "autonomous", in the sense that they are able to take responsibility for their own learning. Autonomy, is desirable for a number of reasons: First, a person who is capable of assessing a situation, setting their own goals, working out how to achieve these in a flexible manner, is obviously well prepared for either the workplace or higher education. Second, students who take on greater responsibility for their own learning are more likely to take a "deep approach" to learning, which in turn leads to greater achievement. Third, autonomy among students is desirable from an educational institution's point of view. Cuts in education funding in recent years have necessitated cuts in contact hours, with a need for students to work more on their own to achieve course aims.

Boud (1998) explores the various interpretations of the concept of autonomy and identifies aspects of teaching and course design that facilitate greater student independence. The three main teaching approaches for the development of autonomy are: the individual-centred approach, the group-centred approach and the project-centred approach. Garrigan (1997) suggests some key factors in the promotion of learner autonomy in higher education.

Ecclestone (2000, pp. 146-147) gives five implied connections between motivation, autonomy and assessment. Autonomy (Ecclestone, 2000, pp. 147-154) can be: procedural (technical); personal (practical, as in one's own "practice"); critical and ultimately emancipatory. This topology relates autonomy to three different models of teaching and learning: transmission, transaction or transformation. Each has different implications for who defines knowledge and outcomes, how teachers and students engage with these definitions in order to foster autonomy and how these interpretations, in turn, affect assessment practices. Vygotsky's ideas about "scaffolding", learning through constructivist approaches to assessment is claimed to have potential for developing understanding of transactional forms of learning and assessment, which suggest reflective, negotiated processes of evaluation, review and recording of achievement which help learners to construct a deeper understanding of their strengths and weaknesses. Also critical are ipsative targets, alongside individual feedback and criteria for assessing individual progress, and processes of peer assessment and mentoring.

The arguments for the relevance of Piaget's theory to the understanding of adult learning and development (Tennant, 1997, p. 65):

- the emphasis on qualitative rather than quantitative developmental changes in cognition and Piaget's related "structuralist" approach to cognitive development;
- the importance attached to the active role of the person in constructing his or her knowledge with the implication that learning through activity is more meaningful;
- a conception of mature, adult thought, i.e. formal operations; and
- the notion that not all PCET learners maybe at this level in all areas.

Employability and experiential learning

Experiential theories are associated fundamentally with theories of reflective learning; the most recent iteration is arguably of Gibbs (1988) founded upon Kolb (1984), in addition to action learning's origins, attributable back to Revans (1982).

It is suggested by Simon (1995) that in the constructivist model, learners only learn through the adaptation of experiential learning by constructing knowledge from their experiences. Pegg *et al.* (2012) propose pedagogy for employability based on a set of case studies. Pegg *et al.* (2012, p. 4) begin by providing two contrasting definitions of employability:

A set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy (ESECT based on Yorke, 2006).

Employability is not just about getting a job. Conversely, just because a student is on a vocational course does not mean that somehow employability is automatic. Employability is more than about developing attributes, techniques or experience just to enable a student to get a job, or to progress within a current career. It is about learning and the emphasis is less on "employ" and more on "ability". In essence, the emphasis is on developing critical, reflective abilities, with a view to empowering and enhancing the learner (Harvey, 2003).

According to the Higher Education Academy (2016) there have been several definitions of employability over the last 20 years, shifting away from demand-led skills towards a more holistic view of "graduate attributes" that include "softer" transferable skills and personal qualities, as well as knowledge. Parallel to shifting definitions, has been the proposal of models and frameworks for employability, such as Knight and Yorke's USEM and Dacre Pool and Sewell's CareerEDGE, with further input from the CBI and NUS (Higher Education Academy, 2016). Employability often refers to some loose association of generic or

transferable skills and attributes perceived to be desirable by employers for successful transition into the employment market:

Gibbs (Pegg *et al.*, 2012, p. 43) points to “[...] a lack of evidence about the long-term consequences for graduate employment of either narrowly focused vocational education or education that emphasises efficiency in generic ‘employability skills’, rather than emphasising the higher order intellectual capabilities involved in adaptable expertise. This makes relying on HESA’s very short-term employment data a risky thing to do”.

Lowden *et al.* (Pegg *et al.*, 2012, p. 43) report that: “Much of the HEIs’ evidence for the longer-term impact of their employability programmes and measures was anecdotal rather than based on systematic evaluative research”. This limitation is merely a reflection of the available data, its intrinsic nature, quantity and quality. Work placements are currently of special interest due to the implementation of the proposed TEF and the attainment of value from degrees along with the considerable increases in tuition fees.

Much of the evidence (metrics) to be collected is implicitly linked to quality criteria (BIS, 2016). There is a lack of specificity and grave concerns regarding what is considered to be “evidence”. Although there is nothing directly pertaining specifically to the measurement of “Employability”, metrics relating to “Employability/destinations” and “Student satisfaction with teaching and learning” criteria are likely to be impacted by employability and therefore used.

The concerns about the implementation of the TEF are most eloquently raised in the Higher Education Policy Institute Report (HEPI, 2016).

Literature summary

Salient points raised by the literature review:

- current teaching and learning practices, including courses which seek to embed employability, are often inherently underpinned by old theories of cognitive development, particularly those of Piaget and Vygotsky;
- newer theories of cognitive development, fundamentally still appear to have Piaget and Vygotsky at their core;
- Vygotskyian-based approaches of social constructivism, with a more interventionist view of the teacher’s role and notion of scaffolding, are suggested to be more pertinent to the teaching of employability, due to their proactive and pragmatic nature;
- useful attributes of learning theory for employability are those relating to cognitive development occurring within a social context, the educational goal of (student) autonomy and a deep learning approach, the need for reflection and that learning through activity (Action learning) is more meaningful;
- Boud (1998) identified aspects of teaching and course design that facilitate greater student independence and learner autonomy, and he described three approaches for the development of autonomy, this is particularly important for employability as well as higher education;
- employability is strongly linked to experiential learning which is associated with theories of reflective and action learning;
- the two contrasting definitions of employability given; both emphasise that employability is not just about getting a job, but more about personal attributes;
- the HEA discusses the shift in the definitions of employability from demand-led skills towards a more holistic view of graduate attributes that include softer transferable skills and personal qualities, as well as knowledge;

- parallel to shifting definitions has been the proposal of models and frameworks for employability;
- there are concerns about the focus of employability, the advocating of generic employability skills and the HESA's reliance on short-term employability data; and
- the evidence (metrics) linked to quality criteria to be used in the evaluation of employability is of major concern for the implementation of the TEF.

Methodology

Although reviewed in the literature, specific employability frameworks or cognitive theories were deemed inappropriate for this study and were therefore not adopted. The aim and objectives of the study were achieved through the analysis of experiential data and logged reports of student work placements over a period of five years. This also entailed the review and evaluation of the teaching and learning strategies currently embedded in the relevant curriculum, specifically, the Greenwich Employability Passport (GEP) and personal, professional development (PPD) courses, which take place through all three years of an undergraduate programme. All the data used are entirely anonymous and aggregated, so ensuring that there are no ethical concerns. The original format of the raw data was both qualitative (predominantly) and quantitative. The analysis techniques employed included the use of content analysis (Bainbridge, 1987) and quantifying the qualitative data (by equation to a numeric scale) to provide "qualitative metrics". This entailed the identification of common themes, establishing which qualitative terms could truly be deemed to be synonyms and the use of frequency counts. Identifying objective themes and synonyms was by no means a trivial classification exercise. For instance, it could be further argued that some of the skill descriptions defined in the employers' synthesis in Table II, are also synonymous, e.g. "Person & People Skills" and "Personality and Inter-personal skills". Students on degree programmes in business and computing have the option of completing a work placement of approximately one academic year in an employment position relevant to their degree programme, with an appropriate employer. Whilst the students are now responsible for finding a suitable placement and have to pay a fee for the placement year, they are supported in finding the placement and throughout the placement year by the employability office, who assigns a placement tutor. Placement students submit monthly reports, have two tutor visits during the year (by telephone if outside the UK), and submit a final report and a presentation on their placement. In addition, the employer also submits a final placement evaluation report.

Analysis and findings

Analysis required the collation of all responses by category and question, and conducting content analysis to allow the identification of synonyms to enable the synthesis of responses, computing the frequencies at different stages of synthesis. A total of 58 work placement visit reports, comprised of 60 questions in nine categories including placement background details such as: health and safety, university envisaged placement skills, the student's work, induction, training and support, student feedback, employer feedback, work placement tutor feedback, and future placement opportunities. One report category was not relevant for the student sample (the category was not applicable to their study programmes). The analysis began by firstly identifying generic skills to be gained by placement students as envisaged by the university. Table I lists the range of generic skills envisaged to be gained by placement students, according to the UK case study university's employability office. Students are expected to gain or improve upon some, or all of the skills listed in Table I.

According to the data, all, or the vast majority of the skills listed in Table I were attained (or improved upon) by all placement students in the study. In order to assess the value of a work placement, the following key performance indicators (KPIs) were then considered, as given in the list below. Again these KPIs were derived from the UK case study university's evaluation criteria established during student placement visits with the students and their employers.

KPIs for work placements for a UK University are as follows:

- (1) The student's work includes:
 - level of current workload;
 - whether responsibilities fairly reflect on the job description;
 - type and nature of work involved;
 - suitability of work to student's programme of study; and
 - complexity/diversity of work given to the student.
- (2) Induction, training and support includes:
 - level of supervision;
 - details on induction;
 - details on training;
 - information on mentor (employer) for the student;
 - frequency of appraisals/meetings;
 - any problems which have arisen so far and action taken;
 - support provided to students with disabilities; and
 - encouragement from employer towards student's academic commitments.
- (3) Student feedback includes:
 - Is the student happy with the placement?
 - Has the placement met their expectations?
 - *Have they developed any new/existing skills?*
 - Are they coping with the transition between work and study?
- (4) Employer feedback includes:
 - Are they satisfied with the student's performance so far?
 - What other support would they like from the university?
 - Has the placement partnership met their expectations thus far?
 - *What skills do they think are most important in the ideal placement student?*
 - What recommendations would they make as an employer?

Decision-making skills	Teambuilding skills	Application of (degree) subject area to work
IT and computer literacy	Analytical skills	Research skills
Problem-solving skills	Time-management skills	Communication skills
Numeracy and literacy Skills	Ability to adapt and be flexible	Ability to make own judgements
Presentation skills	Critical thinking	Report writing skills
Project management skills	Reliability	

Table I.
Envisaged skills
gained by placement
students according to
a UK university

One of the KPIs in each of the student feedback and employer feedback categories dealt with skills. After establishing the university’s perspective on skills (Table I), the next goal was to establish the skills from the perspective of students and employers from the data for these two KPIs. The identification of employability (skills) requirements from the perspectives of both students and employers was achieved by the collation of these answers to student and employer feedback questions (in italic in the list). Table II, shows the employability skills required from the students’ and the employers’ points of view; differences and consensuses. These viewpoints have been synthesised and ranked for comparison.

The sample size, even over a period of five years, is relatively small and therefore not statistically significant. In terms of weighted rankings, the students’ number 1 perceived skill (IT skills) and the employers’ number 1 (communication) were of similar frequencies. There was a considerable difference in the skills frequencies recorded by the students and employers for the number 2 choices, this was also true of the third choices. The fourth choices for both students and employers are equally weighted.

Other skills (not ranked) for both students and employers were single instances. There was a greater variety of skills perceived by employers than students. The common skills perceived by both students and employers were communication (second for the former but first for the latter) and IT skills (first for students but only rated fourth by employers).

Students’ views summary

Communication
IT skills
Time keeping/management
Organisational skills
Staff management
Customer relationship management (CRM)
Team working
Business, management and marketing skills
Contacts
Creative skills
P.R.
Business analytics
Self-reliability

Employers’ views summary

Motivation/self-motivated
Communication
Being organised
Reliability
IT skills
Person and people skills
Enthusiasm and passion
Proactive
Self-disciplined
Good listener
Good attitude
Common sense
Temperate
Confidence/self-confidence and social skills
Flexibility
Ownership and accountability
Initiative
Managerial and administration skills
Personality and inter-personal skills

Prioritised Skills Synthesis: Students

1. *IT Skills*
2. *Communication*
3. *Time keeping/management*
4. *Organisational skills*
Team working
customer relationship management (CRM)

Employers

1. *Communication*
2. *Common sense*
Proactive
3. *Motivation/self-motivated*
Enthusiasm and passion
Confidence/self-confidence and social Skills
Managerial and administration skills
Ownership and accountability
4. *IT Skills*
Reliability
person and people skills
Self-disciplined
Personality and inter-personal skills

Table II.
Employability skills:
prioritised skills
synthesis

Figure 1, adds to the comparison in Table II by listing the unranked employability skills as envisaged by the university (Table I). The common skills are listed on the university skills List in colour, if they appear under either the students synthesis (red), or the employers synthesis (blue), or both (purple). Some of the relationships between university, student and employer defined skills may be an issue of semantics (different wording for essentially the same skill).

In Figure 1, the prioritised skill synthesis is compared with the list of unranked skills envisaged by the university (Table I). It can be seen that communication and IT skills (in purple) were found on all three lists, and that the university has rightly identified these skills as important for both parties. Overall, employability skills are perceived to be mostly “soft”, intangible “people skills”, such as common sense, rather than “hard”, tangible, transferable (“teachable”) skills, such as IT. In the main, employability “skills” cannot be taught, as they are behaviours rather than skills, which highlight the need for such behaviours to be experienced in a real work/world environment (a further strength not only of placements, but of the university life experience). This observation implies that whilst students may attain the same skills (such as IT skills) without a placement, the acquisition of behaviours is greatly facilitated by experience gained through a placement and/or university life.

This finding leads on to how employability is, and can be embedded within (taught) courses, and suitable teaching and learning strategies for achieving this goal.

University skills list	Prioritised skills synthesis: students	Synthesis: employers
• Decision-making skills • IT and computer literacy • Problem-solving skills • Numeracy and literacy skills • Presentation skills • Project management skills • Teambuilding skills • Analytical skills • Time-management skills • Ability to adapt and be flexible • Critical thinking • Reliability • Application of (degree) subject to work • Research skills • Communication skills • Ability to make own judgements • Report writing skills	1. IT skills 2. Communication 3. Time-keeping/management 4. Organisational skills team working customer relationship management (CRM)	1. Communication 2. Common sense proactive 3. Motivation/self-motivated enthusiasm and passion confidence/self-confidence and social skills managerial and administration skills ownership and accountability 4. IT skills reliability person and people skills self-disciplined personality and inter-personal skills

Figure 1.
Employability skills:
university, student
and employer views

PPD courses

The current taught courses linked to employability are the PPD) courses. PPD1 and PPD2, which take place prior to any placement, provide “artificial simulations and scenarios” of employability skills, such as presentations, team work, reporting, time-management, etc. Whilst there can be no substitute for actual work experience, whatever is teachable is taught.

Recently, the GEP has been introduced to encourage students to gain an employability advantage through extra-curricular experience, such as work experience, volunteering, mentoring, etc. The GEP is now an integral part of PPD courses:

- PPD1: in year 1, PPD1 is concerned with student orientation activities;
- PPD2: in year 2, PPD2 is focussed on work-based skills; and
- PPD3: in year 3, PPD3 is the final year project.

Work placements take place after PPD2 (year 2), making it a four year course for students undertaking a placement.

At the end of the student work placement, presentations are given by the work placement students, to the new intake of year 2 PPD2 students. The placement students often report here on their placement being the application of what they learnt in their PPD1 and PPD2 courses. Many students progress to use their work placement experiences for PPD3 (final year project), and also request that their PPD3 tutor be their placement tutor.

The role of the work placement tutor

Sheikh (2014) “looked at students who went on a placement from 2008-2013 and” found that “75% of those students graduated with a 1st class degree. The rest had 2:1s”. Anecdotal evidence supports this statement.

The role of the work placement tutor is understated and often ignored. However, the work placement tutor constitutes the fulcrum on which the (employability) work placement experience hinges. One significant factor is having the same personal tutor for all PPD (PPD1, 2 and 3) courses and the work placement, providing continuity and a familiar face. In short, successfully embedding employability relies on the learning of behaviours or life skills, and on the convergence of the attributes, attitudes and influences of the 4SITE quartet of actors involved. As shown in Figure 2, the role of the tutor is central.

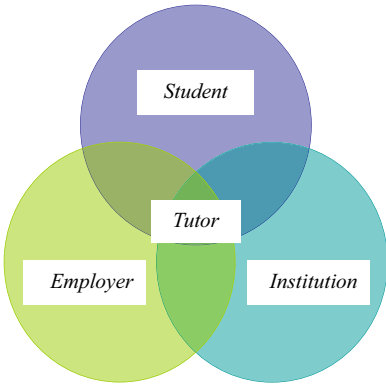


Figure 2.
Embedding
employability – the
4SITE (student,
institution, tutor,
employer) quartet

One question not answered by this study was why students who did a placement achieved a first class or 2:1 honours degree. There was insufficient data for a definitive answer, however, whilst the student is normally the main actor in initiating the placement (implying that the student possesses a special character and/or intelligence), the other SITE actors can also greatly influence the academic outcome, namely the employer (in stretching the student's abilities) and/or the tutor (often as a placement arbitrator, and/or as the final year project supervisor); the institution (university) appears to have the least impact. The ideal tutor inspires the student throughout their studies, encouraging and motivating them to undertake a placement and achieve their personal (academic) best.

Conclusions

Current teaching and learning, including strategies for embedding employability, is still underpinned by re-incarnations of old cognitive theories. However, a Vygotskyian-based approach maps well on to the notion of the ideal employability tutor because of its interventionist and scaffolding characteristics, supporting the desired autonomy of the student. Furthermore, the literature review identified the significance of the social context in learning, student autonomy and a deep learning approach, and the need for reflection, as being important to higher education, and this has been found to be the case for employability.

Employability and theories of experiential learning although still rooted in theories of reflective and action learning are shifting from demand-led skills towards graduate attributes, and the creation of new models and frameworks for employability. The literature review further identified serious concerns about employability data, metrics and their implementation for TEF.

Whilst acknowledging the sample size involved, from the findings it can be inferred that:

- The GEP and PPD courses form the main teaching and learning strategies for embedding employability.

The GEP is as yet untested (because the study data mostly related to placements prior to its introduction), and as the PPD1 and PPD2 courses were also being completely revised (partly to incorporate the GEP), the analysis is based mainly on the "original" PPD courses. However, initial feedback from both staff and students on the GEP and revised PPD1 and PPD2 courses is not positive, implying further work is necessary. At this point in time, comments on the reasons for this feedback would be purely speculative, so none will be suggested here, suffice to say that the original PPD courses were well regarded and established:

- Having the same tutor for all PPD courses and the work placement provides important continuity and support.

The tutor continuity is recognised by both the students and the university (employability office) as it now commonly requested by both parties. The host employer is equally keen on such arrangements when the student proceeds to do a final year project (PPD3) involving their placement host:

- Identification of the university perception of employability skills.

In general, the university's perception of desired employability skills was found to be a mostly accurate one:

- Determination of differences and consensuses of perceptions of student work placements skills from the viewpoints of students and employers. Communication was ranked highly by both. IT Skills were also agreed to be important.

The students rating IT as the most important (teachable) skill, whilst employers ranked communication as the most important (more experienced based) skill:

- Correlation of perceived employability skills for students and employers, with those of the university, the university correctly predicting some of the common skills deemed desirable.

The differences and rankings of perceptions were as interesting as the consensuses:

- Identification of gaps between embedded employability course strategies (theory) and placements (practice). Overall, desirable employability skills were found to be “soft” (behavioural), not “hard” (teachable).
- Identifying the role and significance of the student work placement tutor.

The most significant conclusion is that it is “soft” behaviours, rather than “hard” (teachable) skills that are most desired by employers. This has implications for both pedagogy and strategy, for instance in mock employer presentations, the emphasis should be more on the peripheral time keeping and predominantly, the communication, rather than the presentation (academic) content. Teaching should perhaps be also more oriented to developing greater student autonomy. The demand from employers is for old fashioned “life skills” and personal conduct. Common sense is seldom common, but needs to be instilled somehow, and it is probably here where the influence of the tutor is greatest. This perhaps suggests a more Vygotskyan pedagogical approach to employability with the tutor providing the appropriate scaffolding rather than purely knowledge. If the desired employability outcomes are the instilling of behaviours, then this will have major ramifications for the implementation of the TEF. How can Common Sense be quantified? What metrics can, or should be used for TEF employability behaviours? As discussed in the literature review, Gibbs and Lowden *et al.* (Pegg *et al.*, 2012) have grave concerns about the reliance on short-term employment data and anecdotal evidence as the foundation for TEF employability metrics. Potential employability metrics relating to “Employability/destinations” and “Student satisfaction with teaching and learning” intuitively seem inadequate to the task of quantifying employability in its entirety. Common Sense of course cannot be directly quantified, neither can behaviours. All that remains therefore are the artefacts, such as the reports. Such artefacts could be amenable to data analytics to establish suitable criteria for metrics. However, the use of analytics requires significant (big) amounts of data. A further limitation as suffered by this study, is the data source (number of institutions involved) being sufficient as well as comparable. This study does not provide a solution in addressing what metrics should be used for the TEF and employability. However, this study’s findings indicate that any TEF metrics need to be based on data of sufficient quantity (to avoid the pitfalls of relying on anecdotal evidence), relevance (quality), university/institution independent, be quantifiable and most difficult of all, be objective. The biggest issues relate to the lack of data and its qualitative and highly subjective nature. The greatest concern therefore, is the application of TEF metrics, prior to the establishment of any reliable measurement mechanisms or metrics, and this is of course not limited to employability behaviours.

References

- Ackermann, E.K. (1998), “New trends in cognitive development: theoretical and empirical contributions”, *Learning and Instruction*, Vol. 8 No. 4, pp. 375-385.
- Bainbridge, L. (1987), “Inferring from verbal reports to cognitive processes”, in Brenner, M., Brown, J. and Carter, D. (Eds), *The Research Interview: Uses and Approaches*, Academic Press Inc., London, Chapter 9, pp. 201-214.
- Biehler, R. and Snowman, J. (1997), *Psychology Applied to Teaching*, 8th ed., Houghton-Muffin, Boston, MA, pp. 49-59.

- Billett, S. (1996), "Constructing vocational knowledge: history, communities and ontology", *Journal of Vocational Education and Training*, Vol. 48 No. 2, pp. 141-154.
- BIS (2016), "Teaching excellence framework, technical consultation for year 2", Department for Business Innovation & Skills, London, available at: www.gov.uk/government/consultations/teaching_excellence_framework_year2_technical_consultation (accessed 14 June 2016).
- Bloor, M. (2001), "Learning and cognitive development' study guide", University of Greenwich, London.
- Boud, D. (1998), "Moving towards autonomy", in Boud, D. (Ed.), *Developing Student Autonomy in Learning*, 2nd ed., Kogan-Page, London, pp. 12-39.
- Cortazzi, M. and Hall, B. (1998), "Vygotsky and learning", *Education Libraries Journal*, Vol. 41 No. 3, pp. 17-21.
- Ecclestone, K. (2000), "Assessment and critical autonomy in PCE in UK", *Journal of Education and Work*, Vol. 13 No. 2, pp. 141-162.
- Garrigan, P. (1997), "Some key factors in the promotion of learner autonomy and higher education", *Journal of Further and Higher Education*, Vol. 21 No. 2, pp. 169-182.
- Gibbs, G. (1988), *Learning by Doing: A Guide to Teaching and Learning Methods*, Further Education Unit, Oxford Brookes University, Oxford.
- Graham, D. (2002), "A critical review of Piaget and Vygotsky's theories of cognitive development and some of their implications for teaching in higher education", unpublished report MA PCET, University of Greenwich, London.
- Hartley, J. (1998), "Individual differences in learning", *Learning and Studying, a Research Perspective*, Routledge, London, pp. 33-57.
- Harvey, L. (2003), "Transitions from higher education to work", Centre for Research and Evaluation, Sheffield Hallam University, Sheffield, available at: www.hodoms.org.uk/20140425HEA.pdf (accessed 14 June 2016).
- HEPI (2016), "Response to the higher education green paper", Report 81, Higher Education Policy Institute, available at: www.hepi.ac.uk (accessed 14 June 2016).
- Hettich, P. (1998), "Epistemological approaches to cognitive development in college students", in Sunderland, P. (Ed.), *Adult Learning: A Reader*, Vol. 5, Kogan-Page, London, pp. 26-57.
- Higher Education Academy (2016), "Employability", available at: www.heacademy.ac.uk/workstreams-research/themes/employability (accessed 4 February 2016).
- Kolb, D.A. (1984), *Experiential Learning: Experience as the Source of Learning and Development*, Prentice Hall, Upper Saddle River, NJ.
- Pegg, A., Waldock, J., Hendy-Isaac, S. and Lawton, R. (2012), *Pedagogy for Employability*, Higher Education Academy, York, available at: www.heacademy.ac.uk/resource/pedagogy-employability-2012 (accessed 14 June 2016).
- Perry, W.G. (1970), *Forms of Intellectual and Ethical Development in the College Years*, Holt, Rinehart & Winston, New York, NY.
- Revans, R.W. (1982), *The Origins and Growth of Action Learning*, Chartwell-Bratt, Bromley.
- Sheikh, S. (2014), *Personal Communication Employability Officer*, Employability Office, University of Greenwich, London.
- Simon, M.A. (1995), "Reconstructing mathematics pedagogy from a constructivist perspective", *Journal for Research in Mathematics Education*, Vol. 26 No. 2, pp. 114-145, available at: www.jstor.org/stable/749205 (accessed 14 June 2016).
- Slavin, R.E. (1996), *Educational Psychology: Theory and Practice*, 5th ed., Allyn & Bacon, Boston & London.
- Sutherland, P. (1992), "Vygotsky and Vygotskyans", *Cognitive Development Today: Piaget and his Critics*, Paul Chapman, London, Chapter 4, pp. 42-51.
- Tennant, M. (1997), *Psychology & Adult Learning*, 2nd ed., Routledge, London, pp. 65-68.

- Wood, D. (1998), "Piaget, Vygotsky and Bruner: a brief comparison", *How children Think and Learn: the Social Contexts of Cognitive Development*, 2nd ed., Blackwell, Oxford, pp. 37-39.
- Yorke, M. (2006), "Employability in higher education: what it is – what it is not", *The Higher Education Academy Learning and Employability Series 1*, ESECT and HEA, York, pp. 1-24, available at: www.heacademy.ac.uk/sites/default/files/id116_employability_in_higher_education_336.pdf (accessed 14 June 2016).

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