

## A CRITICAL ANALYSIS OF UNIVERSAL LITERATURE ON GRADUATE EMPLOYABILITY

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### **Abstract**

Enhancing graduate employability is fundamental to higher education institutions' role of producing human capital that is capable of performing competitively in the contemporary labour market. This paper presents a synoptic review of literature on graduate employability with particular focus on the conceptual and theoretical background as well as models and approaches for enhancing employability attributes. The analysis established that the discourse of graduate employability is central to higher education provision across the globe. The notion of graduate employability has evolved from conceptualization to the development of instruments for guiding integration of graduate employability attributes in higher education curricula. The paper provides a synthesis of existing research and makes recommendation for further research on strengthening collaboration between higher education institutions and the industry to enhance graduate employability.

Key words: graduate employability, higher education, labour market, employability attributes, curriculum

### **Introduction**

The contemporary world of work is characterised by intense competition and constant change, in which both employers and employees face increasing risk and uncertainty regarding financial stabilities of or-

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organisations (Reich, 2001). Higher education institutions, employers and graduates are in agreement that graduates need other attributes in addition to subject-specific knowledge and discipline (Andrews & Higson, 2008; Weligamage, 2009). Studies on graduate employability have generated varied definitions of graduate employability, and compiled varied lists of graduate attributes that are deemed important for the contemporary workforce. In addition, proponents of the concept have developed models of enhancing graduate employability (Pool & Sewell, 2007; Sumanasiri, Yajid, & Khatibi, 2015; Yorke & Knight, 2006). Furthermore, literature presents a contentious issue regarding the position of a university as supplier of employable graduates as opposed to the promotion of academic freedom. Moreover, there seems to be a debate on theoretical underpinning of graduate employability, drawing emphasis on the Human Capital and Signaling theories. Finally, scholarly contributions suggest approaches to enhance employability attributes in higher education. Therefore, the purpose of this paper is to provide a critical review of the discourse of graduate employability. The review covers aspects related to the importance of graduate attributes, conceptualization; models; the role of universities towards improving graduate employability, as well as work-related learning as a vehicle for enhancing graduate employability attributes.

### **The need for graduate employability attributes**

Employment patterns are shifting from traditional employment in large organisations to less traditional graduate vacancies in small and medium enterprises (Stewart & Knowles, 1999). In addition, many companies are moving towards customer-oriented service, which means that work has to be organized in ways that would allow greater spontaneity and flexibility in addressing customer needs (Arthur, Brennan, Weert de as cited in Pukelis & Pileicikiene, 2012). As a result of these changes, graduate jobs are no longer necessarily regarded as permanent. Graduates need to be ready to join a new world of adding value, lifelong learning, self-development and agree to the overwhelming need to stay employable (Tran, 2010). This implies that graduates need to be prepared differently to enable them to integrate faster into the increasingly changing labour market. This is supported by Finch, Hamilton, Baldwin, and Zehner (2013) as they write that when hiring new graduates, employers place the highest importance on employability attributes and the lowest importance on academic achievement. This means that graduates who have the best developed employability attributes have an advantage of obtaining a job (Teijeiro, Rungo, & Freire, 2013). Thus, to increase graduates' employability, university academic provisions should place emphasis on learning outcomes associated with enhancing graduate employability

attributes (Finch et al., 2013). From the literature above, it can be suggested that indeed, development of graduate employability attributes is important for the success of graduates in the labour market. Therefore, with the general understanding of the importance of enhancing graduate employability attributes, it is worthwhile to explore the evolution and conceptualisation of graduate employability.

### **The evolution and concept of graduate employability**

Melink and Pavlin (2012) provide historical overview of graduate employability. In the 1970s, the concept of employability was used primarily for resolving problems with school leavers and underprivileged people with political ambitions to attain full employment and cut public losses; in the 1980s for restructuring companies with ambitions to attain efficient human resource management; and in the 1990s for individuals as motives for developing successful career opportunities in segmented and even more flexible labour markets. It is observable that, in the historical context, employability was used to induct individuals into the world of work. This historical accord places employability efforts as a catalyst to ensure that individuals meet the requirements to be employed, and once they are employed, they are able to perform well in their jobs. Similarly, Yorke (2006) notes that employability implies something about the capacity of the graduate to function in a job, and is not to be confused with the acquisition of a job, whether a 'graduate job' or otherwise; and it implies that a student exhibits employability in respect of a job if he or she can demonstrate a set of achievements relevant to that job.

In moving forward from the abovementioned historical context, Yorke (2006) presents graduate employability constructs. The first construct refers to graduate employability as demonstrated by a graduate actually obtaining a job. This construct equates employability to employment, that by virtue of obtaining a job, a graduate is considered to be employable. The second construct is graduate employability as the student being developed by his or her experience of higher education, that is, a curricula and perhaps extra-curricular activities. This view assumes that the students learning experience in a higher education institution is a sufficient condition for enhanced employability. Yorke (2006) argues that higher education learning experience does not necessarily ensure that the student develops the various prerequisites such as cognitive, social, and practical experience for success in employment. The curricula process may facilitate the development of prerequisites appropriate to employment, but does not guarantee it. Therefore it is a mistake to assume that students are highly employable on the basis of curricula provision alone. The third construct looks at graduate employability in terms of the possession of rel-

evant achievements. For example, a Business Studies graduate who has inadequate training of quantitative techniques would not be appropriate for a market research post in which statistical analysis would figure strongly. He or she might, however, make a valuable contribution in human relations. This shows that employability is dependent on a given context of employment. A range of attributes and achievements may have a general value, but may well prove insufficient for some specific situations.

It is observable that the above constructs are very abstract and ambiguous. They seem to have missed the point of the need for employability attributes. The labour market needs other attributes in addition to the actual area of discipline specialization (Andrews & Higson, 2008). It is then necessary to find out how various scholars have conceptualized graduate employability attributes.

### **Conceptualising graduate employability**

Different universities and higher education systems have used varied terminologies to refer to qualities and skills that are needed in addition to the subject-specific skills. Some of the terminologies commonly used are transferrable skills, key skills, soft skills, generic attributes, employability skills, and key competencies, core skills, and underpinning skills. In most cases, these terms have been used interchangeably to refer to graduate employability (Curtis & McKenzie, 2001; Tempone et al., 2012).

Numerous scholars have attempted to conceptualize graduate employability.

1. Proponents of graduate employability discourse defined employability as *“a set of achievements that comprise skills, understanding and personal attributes that make an individual more likely to secure and be successful in his/her chosen occupation to the benefit of him/herself, the workforce, the community and the economy”* (Yorke & Knight, 2006, p. 3).
2. Another definition of employability is *“the capacity to gain initial employment, maintain employment and obtain employment if required”* (Hillage & Pollard, 1998, p. 2).
3. Bowden et al. (as cited in Hounsell, 2010) define graduate attributes as *“the qualities, skills and understanding a university community agrees its students would desirably develop during their time at the institution and, consequently, shape the contribution they are able to make to their profession and as a citizen”* (p.1).
4. Barrie (2006); Yorke and Knight (2006) have concluded that in Australia, graduate employability attributes have come to be accepted as being the qualities, skills, knowledge and abilities of uni-

versity graduates, beyond disciplinary content knowledge, which are applicable to a range of contexts and are acquired as a result of completing any undergraduate degree, and they should represent the core achievements of a university education.

5. Wickramasinghe and Perera (2010) asserted that subject skills and transferrable skills are the two aspects of employability. Transferable skills refer to certain personal abilities of an individual, which can be taken from one job role to another, used within any profession and at any stage of his/her career. Subject skills are more relevant to one's career as they are discipline specific knowledge and skills.
6. Archer and Chetty (2013) refer employability as "graduateness" (p.138), meaning the qualities such as being independent, responsible, caring citizen, fulfill and serve in multiple roles, analytical, critical thinking, acquired and knowing how to use discipline-specific skills.
7. Rospigliosi, Greener, Bournier, and Sheehan (2014) conceptualise employability as the graduates proven ability to learn and willingness to learn. Through completing their university education where they have met requirements and have become specialists in the practice of learning.

From the definitions provided, it is noticeable that there is consistent emphasis on application of graduate attributes in the workplace and for lifelong learning. Therefore, it can be concluded that graduate employability attributes are the generic qualities and skills that are suitable for contemporary workplace, and that allows a graduate to identify relevant further learning opportunities for continuous professional and personal growth.

Some authors have claimed that the more definitions of graduate employability are suggested, the more ambiguity arises, and that there is no agreement as to which attributes are most important in shaping graduate employment outcomes (Tomlinson, 2012; Tran, 2016). In addition, there are claims that no empirical evidence has been produced in the development of the employability notion, and graduate employability lacks clarity and precision as an operational concept (Lees, 2002). Furthermore, Sumanasiri et al. (2015) argues that despite the large number of studies, graduate employability appears to be suffering from the problems of lack of theoretical control and politicization which appear to have become major obstacles for future developments of the concept. Although there are expressed concerns, literature has continuously established the importance of enhancing graduate attributes in addition to discipline-specific skills. Therefore, it is important to explore this through the models of graduate employability.

**Models of graduate employability attributes**

Models of graduate employability depict essential elements for graduate’s preparation to enter the world of work. Several proponents of graduate employability have developed models of graduate employability. Among these models, are Yorke and Knight’s USEM model (2006); the DOTS Model by Law and Watts (1977); and the CareerEDGE model by (Pool & Sewell, 2007). Below are summaries of these models of graduate employability.

***USEM model of employability***

The USEM model presents five common descriptions of employability, ranging from getting a graduate job to the outcome of skillful career planning and interview technique. This approach to employability suggests that employability is a combination of Understanding of subject discipline, apprehension and applicability; Skillful practices in context, subject specific and generic abilities (the capacity to apply understanding judiciously); Efficacy beliefs, that is awareness and understanding of one’s self and one’s abilities, students’ self-theories and personal qualities – the extent to which students feel that they might ‘be able to make a difference’; and Metacognition, encompassing self-awareness regarding the student’s learning and the capacity to reflect on, in and for action; and self-regulation (Knight & Yorke, 2006; Oliver, 2015).

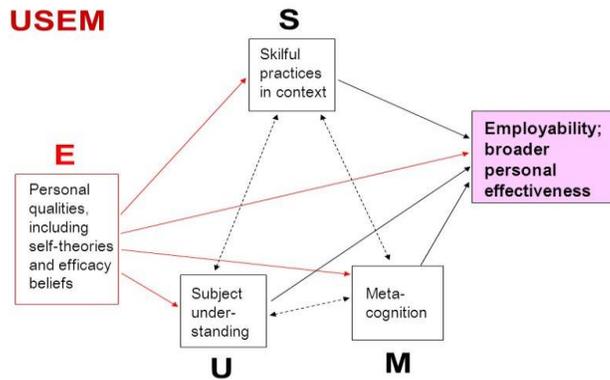


Fig.1 USEM model of employability

This model assumes that the qualities that would enable an undergraduate to successfully complete a degree would also equip them to be successful in their subsequent careers. It also gives a typology of employability skills whereby each student is required to demonstrate specific employability abilities in both general education and the specialist subject chosen (Yorke & Knight, 2006).

***DOTS model of employability***

Developed by Law and Watts (as cited in Watts, 2006), the DOTS Model consists of planned experiences designed to facilitate the development of Decision making skills, Opportunity awareness, Transition learning, and Self-awareness (DOTS).

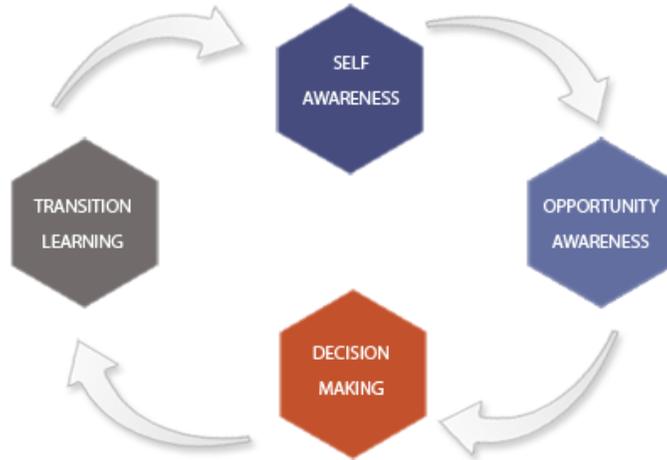


Fig.2 DOTS Model of employability

According to Pool and Sewell (2007), the value of the DOTS Model lies in its simplicity as it allows individuals to organize a great deal of the complexity of career development learning into a manageable framework. However, critics of this model argue that it is over-reliant on a mechanistic matching of person and environment, and therefore underplays other critical issues such as social and political contexts. Another critic is that there is an implication that failure to secure a self-fulfilling occupation can be presented as the fault of the unsuccessful individual. In addition, critics suggest that students introduced to basic concepts of career development through DOTS would be incapable of developing and learning about more sophisticated analyses through this simple introductory structure. Elements of DOTS are considered to be static and that they contain no aspects of growth.

***CareerEDGE model of employability***

Pool and Sewell (2007) developed a CareerEDGE model of graduate employability. The model combines all the main factors of USEM, and other employability skills models.



Fig.3 CareerEDGE Model of employability

According to Sumanasiri et al. (2015), the model suggests that employability is achieved through a complex interaction with social concepts such as self-esteem, self-efficacy, and self-confidence in addition to five lower order factors. Firstly, degree subject knowledge, understanding and skills – A similar element to Understanding in the USEM model; the motivator to enter higher education is generally perceived to be to study a specific discipline in-depth, to gain a degree, get a higher qualification and thus get a better job. Secondly, generic skills also referred to as core skills, key skills, or transferrable skills. Bennett (2002) defines generic skills as skills which can support study in any discipline, and which can potentially be transferred to a range of contexts, in higher education or the workplace. These include creativity, adaptability, willingness to learn, team work, communication, time management, etc. Thirdly, is emotional intelligence as the capacity for recognizing one’s feelings and those of others, for self-motivation, and for managing emotions. Fourthly, career development learning – this covers the DOTS elements; for a graduate to stand the best chance of securing occupations in which they can be satisfied and successful, it is essential that they receive some education in career development learning. Finally, experience - reflecting the fact that having some form of work or life experience is likely to help a graduate develop a wider range of skills and make them more attractive to prospective employers. The CareerEdge model suffers from the limitation of being categorized as a snap-shot view of employability that limits its appli-

cation (Sumanasiri et al., 2015). Even though this model has limitations, it is a comprehensive and widely accepted model of graduate employability (Pool & Sewell, 2007).

All three models contain similar attributes such as generic and specific skills, reflective thinking, application of skills, and self-knowledge and attitude and drive of the graduate. Therefore, the models inform that graduate employability attributes cannot be considered in isolation as there are various components at play in the development of graduate employability. Therefore it is pertinent to explore theories through which the discourse graduate employability can be explained.

### **Theories of graduate employability attributes**

Scholarly contributions have associated graduate employability to Signaling theory, and Human Capital theory (HCT) (Cai, 2013; Fincher, 2007; Jonck, 2014; Rospigliosi et al., 2014). The job market Signaling theory is based on the premise that hiring is an investment decision for employers. Employers have to make hiring decisions in conditions of uncertainty by taking into account signals from a graduate (Cai, 2013). Human Capital Theory deals with the relationship between educational attainment and labour market outcomes (Jonck, 2014). It emphasizes that education is the primary economic enabler and essential for participation in the global economy, and it refers to the quality of labour, thus, skills and knowledge of employees, and the value of expected returns in terms of the output it can generate.

Signaling theory (Stiglitz, 1975) assumes that job seekers send signals about their ability level to employers by acquiring certain educational credentials, while employers screen the job applications according to the signals that the educational credentials transmit. Therefore, education only serves as a tool for job-seekers to signal their inherent ability to employers. Rospigliosi et al., (2014) write that employers use educational attainment to identify individuals with certain valuable inborn traits that cannot be observed directly. It is argued that education per se does not enhance productivity; rather it is used by employers as a signal about an applicant's potential productivity, including their ability to learn on the job. For university graduates, the attainment of a university degree would send a strong signal to employers that the graduate applicant was highly capable and thus that their initial and subsequent productivity, enhanced by on-the-job training, would be utilised efficiently, due to the employees' assumed high capability (Rospigliosi et al., 2014).

Bailly (2008) explains that the validity of Signalling theory is based on the employer's belief system, whereby the employer tends to attribute an anticipated level of productivity to these people depending on the information transmitted by job-applicants' educational credentials, and then makes recruitment decisions based on that. The process of adjusting employer beliefs will depend on the productivity of graduates. This means that the employer has accumulated enough experience to determine employability of graduates.

Research on Human Capital (HC) theory has established that higher education is an investment for productivity in the labour market. The HC theory explores the concept of investing in people to enhance their value and usefulness (Fincher, 2007; Melink & Pavlin, 2012). It assumes that individuals invest in themselves to increase future earnings (Weber, 2014). Through investment in people, the quality of work improves; and employment prospects increases (Cai, 2013; Kaplan & Norton, 2004). Moreover, Weber (2014) notes that persons having more education are likely to be in a position to adjust more easily than those with less education. In other words, higher education provides marketable skills and abilities relevant to job performance, and thus the more highly educated people are, the more successful they will be in labour markets in terms of both incomes and job offers.

It is worth noting that HC investment was not universally accepted as a justification for the support of higher education, and significant studies dismissed the two theories (Fincher, 2007). Nonetheless, Rospigliosi et al. (2014, p. 423) articulate that

the debate between human capital and signalling explanations was never really resolved. It proved impossible to devise empirical tests that could convincingly discriminate between them. This is not to suggest that there is, in reality, little difference between them. It is quite easy to envisage situations where they make contradictory predictions: a young person who is undecided about whether to apply for university or whether to seek a job hears government forecasts of a significant rise in applications to university next year. Will this news make them more or less likely to apply to university? Signalling theory predicts that the young person will conclude that more graduates will push them further down the jobs hierarchy and so will increase the incentive and likelihood of applying for university. Human capital theory predicts that the rise in the number of graduates will depress the "graduate premium", thereby reducing the incentive and

likelihood of applying for university. It has, however, proved difficult to test these theories empirically.

In conclusion, Robert (2006) summarises that the key difference between graduates and non-graduates is that the former have acquired the knowledge, skills and attitudes of a university education and a proven ability and willingness to learn, and that is the basis of both human capital and signalling theories. Therefore, given that business and industry is the primary consumer of the knowledge, skills and attitudes of university graduates, university curricula should be adjusted to meet the requirements of an increasingly changing labour market, thereby enhancing graduate employability (Jonck, 2014). This places a role on higher education to ensure that graduates are employable.

### **Higher education as a supplier of employable graduates**

There has been an ongoing debate about the purposes of higher education and university. On one hand, there is a position that assumes a correspondence between educational profiles of graduates and the jobs they fill, that is, matching and responding to the demands of the workplace (Corominas, Saurina, & Villar, 2010). On the other hand, there is a position that advocates for the university's autonomy and academic freedom; that universities should not accommodate opportunist employer-driven agendas but offer education based on research and enduring academic values (Kettis, Ring, Gustavsson, & Wallman, 2013). Hildreth (2011) affirms that narrow training for a specific job is a cramped view of education, that it is inimical to growth. Moreover, Wilton (2014) writes that policy discussion on graduate employability has been focusing on enhancing employability attributes to respond primarily to the demands of employers. This, Milton claims, is based on an assumption that the demands of the employers and workplace requirements are uniform across sectors. Therefore, what is required is an education that can prepare students for future working lives, allowing industry growth, and at the same time, an education that fosters academic freedom and the holistic development of a graduate.

Tran (2016) notes that due to the increasing neoliberal pressure in the labour market, universities are placed under pressure to demonstrate that they are effectively and efficiently providing relevant and worthwhile education to produce graduates that meet the demands of the 21<sup>st</sup> century labour market. Therefore, universities should offer graduates the skills required by the labour market, through dedicated programs or internships (Barrie, 2006; Guilbert, Bernaud, Gouvernet, & Rossier, 2016; Barrie, 2006).

There is a consensus among stakeholders that higher education course design should take into consideration employers’ perspectives on students’ preparation (Vivas & Hevia, 2009). Romenti, Invernizzi, and Biraghi (2012), note that the engagement of professionals and employers in the process of standard definition allows universities to refine their ability to deliver value to their stakeholders more effectively.

Research contributions have identified graduate attributes that are important for graduates to possess in order to function in the evolving world of work. They suggest that graduates should possess skills such as team-working, networking, problem solving, teamwork, leadership skills ,innovative skills, research skills, interpersonal skills, critical thinking, skills to manage process rather than functional skills, and other qualities in order for graduates to be employable (Donleavy, 2012; Quek, 2005). These employability attributes can be enhanced using work-integrated learning. Below is an example of employability attributes that should be developed for business management students.

Table 1: Graduate employability attributes for business management graduates, adopted from Jackson and Chapman (as cited in Jackson, 2014)

<b>Skill</b>	<b>Behaviour</b>
<b>Core business skills</b>	Numeracy; technology
<b>Critical thinking</b>	Pattern recognition and conceptualisation; evaluation
<b>Problem solving</b>	Analytical / convergent reasoning; diagnosing
<b>Decision management</b>	Lateral thinking / creativity; information management; decision making
<b>Political skills</b>	Influencing others; conflict resolution
<b>Working with others</b>	Task collaboration; team working; social intelligence; cultural and diversity management
<b>Oral communication</b>	Verbal communication; giving and receiving feedback
<b>Personal ethics</b>	Personal ethics
<b>Confidence</b>	Self-efficacy
<b>Self-awareness</b>	Meta-cognition; lifelong learning
<b>Self-discipline</b>	Self-regulation; stress tolerance; work/life balance
<b>Innovation</b>	Entrepreneurship; change management
<b>Leadership</b>	Project management; performance management; meeting management; developing others
<b>Formal communication skills</b>	Public speaking; meeting participation; written Communication
<b>Performance</b>	Efficiency; multi-tasking; autonomy
<b>Organisational skills</b>	Goal and task management; time management
<b>Environmental awareness</b>	Organisational awareness; commercial awareness

<b>Professional responsibility</b>	Social responsibility; accountability
<b>Work ethic</b>	Drive; initiative

### **Work-Integrated Learning (WIL) as a vehicle for enhancing graduate employability attributes**

Yorke and Knight (2006) proposed approaches through which graduate employability attributes can be enhanced. Firstly, employability through the whole curriculum where by individual students are expected to demonstrate competency in given abilities in a progressive manner; secondly, employability in the core curriculum where by a university designates a module or two as vehicles for enhancing employability attributes (Quality Assurance Agency for Higher Education, 2009); thirdly, employability-related modules within the curriculum where by students are required to take theoretical employability modules at the beginning of an undergraduate degree; fourthly, work-based or work-related learning in parallel with the curriculum where by students are employed part-time in parallel with their studies (Muldoon, 2009); and finally, work-based or work-related learning interspersed within the curriculum. This approach includes placements and internships. Among the five approaches, the most popular and advocated for by many universities is the Work-based learning within the curriculum, which is referred to in literature as Work-Integrated Learning (Jackson, 2014).

The concept of WIL is becoming increasingly popular in the higher education sector across the globe. Jackson (2014) describes WIL as the practice of combining traditional academic study, or formal learning, with student exposure to the world-of-work in their chosen profession, has a core aim of better preparing undergraduates for entry into the workforce. It is a curriculum design in which students spend time in professional, work, or other practice settings relevant to their degrees of study, and to their occupational futures (Smith, 2012). The difference between WIL and other terms such as placements and internships, is that WIL emphasises the integration of subject learning and practical work. This means that curriculum is central to the purpose and practice of WIL. This may not necessarily be the case with placements or internship where there is no focus on practicing what has been learned into the real world of work (Smith, 2012). Forms of WIL include work placements, internships, field work, sandwich year degrees, job shadowing, cooperative education, and service learning (Von Treuer et al., 2010; Clinton and Thomas as cited in Jackson, 2014).

The model or approach of WIL has benefits to graduates, higher education institutions, and employers. For graduates, as tool to enhance graduate employability, WIL has benefits in terms of building student confidence in their workplace capabilities; providing students with a better understanding of the nature and standard of industry-required skills; and a better appreciation of the world-of-work; promoting certain elements of career self-management; providing education that responds to present and future needs; and providing learning that is useful to society and not just an addition to students' disciplinary knowledge base. In addition to these benefits, it alleged that graduates that have completed will during undergraduate education are better skilled at team working, problem solving, communication, information literacy and professionalism; and that students participating in WIL are encouraged by activities such as reflective journaling, product development, research activities, in a real world of work (Freudenberg, Brimble & Cameron, as cited in Jackson, 2014).

Universities benefit from WIL in such a way that university enhances its engagement with community through partnerships with the different industries and community organisations; and it produce more employable and work-ready graduates (Jackson & Wilton, 2016; Smith, 2012). In addition, WIL brings about changing teachers' attitudes towards recognizing the importance of work experience arrangements; a more relevant curriculum because WIL becomes part of the curriculum leading to improvement of curriculum to address skills and qualities that employers seek in new employees (Blackwell, Bowes, & Harvey, 2001). For employers, WIL brings about informed employers, about higher education and the circumstances under which it operates; and an employability signal, that graduates who have participated in WIL during university education have advantage during recruitment because of the on-the-job learning experience (Blackwell et al., 2001).

Therefore, in order for WIL to be successful, there is a need for close interaction between educators and practitioners to bridge the gap between 'capability', acquired at university, and 'competence', that are demonstrated in the workplace (Leong & Kavanagh, 2013). Some countries have developed national frameworks that guide the implementation if WIL, bridging the higher education sector and the industry. These are further translated into university standards for the development of graduate employability attributes (Jackson, 2013, 2014). Like any other curriculum initiative, WIL requires active involvement of university educators and curriculum designers in developing effective learning activities for students and to assess progress made towards desired employability attributes from the beginning of the programme

of study to completion (Cavanagh, Burston, Southcombe, & Bartram, 2015). Therefore, it is important that universities develop an institutional WIL framework for developing employability attributes for students. Below is an example of an institutional WIL framework.

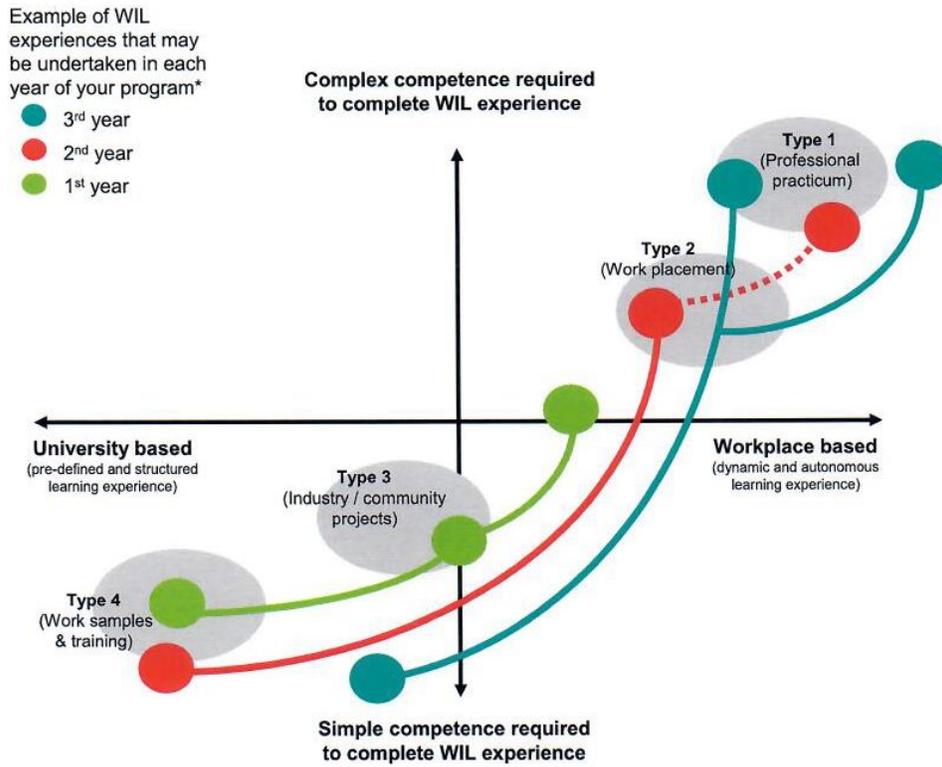


Figure 4: Example of a university WIL framework adopted from Leong and Kavanagh (2013)

The graphic depicts the education process including workplace based learning, university based, and the incremental process from simple to complex competencies required to complete the WIL experience. However, this example of a framework is silent on the duration of workplace based learning as opposed to university based learning. Nonetheless, using this example, a plan for WIL experience can be clearly communicated to students and the industry. Therefore, it is important that, in their efforts to enhance graduate employability, a framework to guide such is pertinent.

## Conclusion

This paper provided a synoptic review of the literature on graduate employability, from conceptualisation, models, theories, and enhancing employability attributes using workplace based learning. From the review, it is made clear that, for graduates to perform and be productive in the knowledge economy, they should be equipped with employability attributes. These will allow them to have a competitive edge in getting a job, successfully perform their job, and become lifelong learners. Models of employability such as USEM, DOTS, and CareerEDGE can guide the development of curriculum content on graduate employability. To achieve this, higher education institutions need to employ instruments such as guidelines and frameworks for incorporating graduate employability attributes in the curricula. In particular the concept of WIL seems to be appropriate as the practice benefits the stakeholders such as graduates, industry, and the university. It is also important to state that WIL strengthens the relationship between higher education institutions and industry. From this analysis, therefore, this paper recommends that the focus for future research should be targeted towards harnessing and improving partnership between higher education institutions and industry during the process and practice of curriculum development and delivery.

## References

- Andrews, J., & Higson, H. (2008). Graduate employability , “ Soft Skills ” versus “ Hard ” business knowledge : a European study. *Higher Education in Europe*, 33(4), 411–422. <https://doi.org/10.1080/03797720802522627>
- Archer, E., & Chetty, Y. (2013). Graduate employability : conceptualisation and findings from the University of South Africa. *Progressio*, 35(1), 134–165.
- Bailly, F. (2008). The role of employers’ beliefs in the evaluation of educational output. *The Journal of Socio-Economics*, 37(3), 959–968. <https://doi.org/10.1016/j.socec.2006.12.083>
- Barrie, S. C. (2006). *Understanding what we mean by the generic attributes of graduates*. Sydney: University of Sydney. <https://doi.org/10.1007/s10734-004-6384-7>
- Bennett, R. (2002). Employers’ demands for personal transferable skills in graduates: a content analysis of 1000 job advertisements and an associated empirical study. *Journal of Vocational Education & Training*, 54(4), 457–476. <https://doi.org/10.1080/13636820200200209>.

- Blackwell, A., Bowes, L., & Harvey, L. (2001). Transforming work experience in higher education. *British Educational Research Journal*, 27(3), 269–285. <https://doi.org/10.1080/0141192012004830>.
- Cai, Y. (2013). Graduate employability: A conceptual framework for understanding employers' perceptions. *Higher Education*, 65(4), 457–469. <https://doi.org/10.1007/s10734-012-9556-x>.
- Cavanagh, J., Burston, M., Southcombe, A., & Bartram, T. (2015). Contributing to a graduate-centred understanding of work readiness: An exploratory study of Australian undergraduate students' perceptions of their employability. *International Journal of Management Education*, 13(3), 278–288. <https://doi.org/10.1016/j.ijme.2015.07.002>.
- Corominas, E., Saurina, C., & Villar, E. (2010). *The match between university education and graduate labour market outcomes: An analysis of three graduate cohorts in Catalonia*. Catalunya: Agència per a la Qualitat del Sistema Universitari de Catalunya.
- Curtis, D., & McKenzie, P. (2001). *Employability skills for Australian industry: Literature review and framework development*. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.198.5351&rep=rep1&type=pdf>
- Donleavy, G. (2012). Proclaimed graduate attributes of Australian universities: Patterns, problems and prospects. *Quality Assurance in Education*, 20(4), 341–356. <https://doi.org/10.1108/09684881211263984>
- Finch, D., Hamilton, L., Baldwin, R., & Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. *Education + Training*, 55(7), 681–704. <https://doi.org/10.1108/ET-07-2012-0077>.
- Fincher, M. (2007). Governments as human capital providers A rationale for strong government support of broad higher education access. *Competitiveness Review: An International Business Journal*, 17(1), 67–76. <https://doi.org/10.1108/10595420710816623>.
- Guilbert, L., Bernaud, J. L., Gouvernet, B., & Rossier, J. (2016). Employability: Review and research prospects. *International Journal for Educational and Vocational Guidance*, 16(1), 69–89. <https://doi.org/10.1007/s10775-015-9288-4>.
- Hildreth, R. W. (2011). What good is growth? Reconsidering Dewey on the ends of education. *Education*

& *Culture*, 27(2), 28–47.

- Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis*. Retrieved from <http://webarchive.nationalarchives.gov.uk/20130402091826/https://www.education.gov.uk/publications/eOrderingDownload/RB85.pdf>
- Hounsell, D. (2010). *Graduates for the 21st Century: Integrating the enhancement*. Retrieved from <http://www.enhancementthemes.ac.uk/docs/report/synthesis-of-work-of-the-theme-end-of-year-report-dai-hounsell.pdf?sfvrsn=24>.
- Jackson, D. (2013). Student perceptions of the importance of employability skill provision in business undergraduate programs. *Journal of Education for Business*, 88(5), 271–279.
- Jackson, D. (2014). Modelling graduate skill transfer from university to the workplace. *Journal of Education and Work*, 9080(April), 1–33. <https://doi.org/10.1080/13639080.2014.907486>.
- Jackson, D., & Wilton, N. (2016). Developing career management competencies among undergraduates and the role of work-integrated learning. *Teaching in Higher Education*, 21(3), 266–286.
- Jonck, P. (2014). A human capital evaluation of graduates from the Faculty of Management Sciences employability skills in South Africa. *Academic Journal of Interdisciplinary Studies*, 3(6), 265–274. <https://doi.org/10.5901/ajis.2014.v3n6p265>.
- Kaplan, R., & Norton, D. (2004). Measuring the strategic readiness of intangible assets. *Harvard Business Review*. Retrieved from [https://www.researchgate.net/profile/Amer.../kaplan-norton\\_-2004.pdf](https://www.researchgate.net/profile/Amer.../kaplan-norton_-2004.pdf).
- Kettis, A., Ring, L., Gustavsson, M., & Wallman, A. (2013). Placements: An underused vehicle for quality enhancement in higher education? *Quality in Higher Education*, 19(1), 28–40.
- Lees, D. (2002). Graduate employability literature review. Retrieved from <https://pdfs.semanticscholar.org/3be9/083c2931310d073c1fb3319a55e77647befa.pdf>
- Leong, R., & Kavanagh, M. (2013). A work-integrated learning (WIL) framework to develop graduate skills and attributes in an Australian university's accounting program. *Asia-Pacific Journal of Cooperative Education*, 14(1), 1–14.

- Melink, M., & Pavlin, S. (2012). *Employability of graduates and higher education management systems (Final report of DEHEMS project)*. Retrieved from [http://www.dehems-project.eu/static/uploaded/files/files/resoultts/DEHEMS\\_REPORT\\_final.pdf](http://www.dehems-project.eu/static/uploaded/files/files/resoultts/DEHEMS_REPORT_final.pdf)
- Muldoon, R. (2009). Recognizing the enhancement of graduate attributes and employability through part-time work while at university. *Active Learning in Higher Education*, 10(3), 237–252. <https://doi.org/10.1177/1469787409343189>.
- Pool, L. D., & Sewell, P. (2007). *The key to employability : developing a practical model of graduate employability*, 49(4), 277–289. <https://doi.org/10.1108/00400910710754435>.
- Pukelis, K., & Pileicikiene, N. (2012). *Matching of generic competencies with labour market needs: important factor of quality of study programmes*. Vytautas Magnus University.
- Quality Assurance Agency for Higher Education. (2009). *Learning from ELIR 2003-07 Emerging approaches to employability and personal development planning Sharing good practice*. Mansfield: QAA.
- Quek, A. (2005). Learning for the workplace : A case study in graduate employees ' generic competencies, 17(4), 231–242. <https://doi.org/10.1108/13665620510597185>.
- Reich, R. B. (2001). *The future of success: work and life in the new economy*. London: Heinemann.
- Roberts, L. (2006). *After you graduate: Finding and getting work you will enjoy*. UK: McGraw-Hill Education.
- Romenti, S., Invernizzi, E., & Biraghi, S. (2012). Engaging employers to develop quality in higher education: The case of communication studies in Italy. *Quality in Higher Education*, 18(2), 205–220. <https://doi.org/10.1080/13538322.2012.691201>.
- Rospigliosi, A. P., Greener, S., Bourner, T., & Sheehan, M. (2014). Human capital or signalling , unpacking the graduate premium. *International Journal of Social Economics*, 41(5), 420–432. <https://doi.org/10.1108/IJSE-03-2013-0056>.
- Smith, C. (2012). Evaluating the quality of work-integrated learning curricula: a comprehensive framework. *Higher Education Research & Development*, 31(2), 247–262.

<https://doi.org/10.1080/07294360.2011.558072>.

Stewart, J., & Knowles, V. (1999). The changing nature of graduate careers. *Career Development International*, 4(7), 370–383.

Stiglitz, J. (1975). The theory of “screening”, education, and the distribution of income. *The American Economic Review*, 65(3), 283–300.

Sumanasiri, E., Yajid, M., & Khatibi, A. (2015). Review of literature on graduate employability. *Journal of Studies in Education*, 5(3), 75–88. <https://doi.org/10.5296/jse.v5i3.7983>.

Teijeiro, M., Rungo, P., & Freire, M. J. (2013). Graduate competencies and employability: The impact of matching firms’ needs and personal attainments. *Economics of Education Review*, 34, 286–295. <https://doi.org/10.1016/j.econedurev.2013.01.003>.

Tempone, I., Kavanagh, M., Segal, N., Hancock, P., Howieson, B., & Kent, J. (2012). Desirable generic attributes for accounting graduates into the twenty-first century: The views of employers. *Accounting Research Journal*, 25(1), 41–55. <https://doi.org/10.1108/10309611211244519>.

Tomlinson, M. (2012). Graduate employability: A review of conceptual and empirical themes. *Higher Education Policy*, 25(1), 407–431. <https://doi.org/10.1057/hep.2011.26>.

Tran, J. (2010). Enhancing graduate employability. In *AARE Annual Conference* (pp. 1–20). Melbourne. Retrieved from [www.unescobkk.org/fileadmin/.../Conference/...Conference/.../712-180-1-RV\\_01.pdf%0ACached%0ASimilar%0A](http://www.unescobkk.org/fileadmin/.../Conference/...Conference/.../712-180-1-RV_01.pdf%0ACached%0ASimilar%0A)

Tran, T. T. (2016). Enhancing graduate employability and the need for university- enterprise collaboration. *Journal of Teaching and Learning for Graduate Employability*, 7(1), 58–71. <https://doi.org/10.21153/jtlge2016vol7no1art598>.

Vivas, A. J., & Hevia, D. M. A. (2009). Professionalization in universities and European convergence. *Higher Education in Europe*, 34(3–4), 399–409. <https://doi.org/10.1080/03797720903356552>.

Watts, A. G. (2006). Career development learning and employability. *The Higher Education Academy*, 2(1), 1–36. Retrieved from [http://hca.ltsn.ac.uk/assets/documents/resources/resourcedatabase/id592\\_career\\_development\\_](http://hca.ltsn.ac.uk/assets/documents/resources/resourcedatabase/id592_career_development_)

learning\_and\_employability.pdf.

- Weber, S. (2014). Human capital depreciation and education level. *International Journal of Manpower*, 35(5), 613–642. <https://doi.org/10.1108/IJM-05-2014-0122>.
- Weligamage, S. S. (2009). *Graduates' employability skills: Evidence from literature review*. University of Kelaniya. Retrieved from [http://fac.ksu.edu.sa/sites/default/files/weliganmage\\_2009\\_graduates\\_employability\\_skills\\_evidence\\_from\\_literature\\_review.pdf](http://fac.ksu.edu.sa/sites/default/files/weliganmage_2009_graduates_employability_skills_evidence_from_literature_review.pdf)
- Wickramasinghe, V., & Perera, L. (2010). Employers' perceptions towards employability skills. *Education + Training*, 52(3), 226–244.
- Wilton, N. (2014). Employability is in the eye of the beholder: Employer decision-making in the recruitment of work placement students. *Higher Education, Skills and Work-Based Learning*, 4(3), 242–255. <https://doi.org/10.1108/HESWBL-07-2014-0027>.
- Yorke, M. (2006). *Employability in higher education : what it is – what it is not*. Learning and employability. Heslington, UK: The Higher Education Academy.
- Yorke, M., & Knight, P. (2006). *Embedding employability into the curriculum*. Learning and employability. Heslington, UK: The Higher Education Academy.