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**Where do graduates Develop their Enterprise Skills? The Value of the Contribution of Higher Education Institutions' Context**

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**Abstract:**

This study investigates the value of the contribution of HEIs' context in developing graduates enterprise skills. HEIs are under pressure to develop more enterprising graduates, particularly with the increasing numbers of graduates seeking employment and the growing dissatisfaction of employers. This study explores where graduates develop enterprise skills through investigating the impact of HE and employment contexts on their development. The paper draws on a qualitative study in the social constructionist paradigm within the pharmacy context, where interviews were conducted with pharmacy academics and employers. Results show that ability to demonstrate skills in one context does not necessarily mean ability to demonstrate them in another since the development and demonstration of enterprise skills is impacted by the contexts in which they are developed and demonstrated. The study adds value by highlighting the significant role of both HE and employment contexts in developing enterprise skills, while emphasising that these skills become more transferable through exposure to more contexts.

**Key words:** Enterprise skills, enterprise education, pharmacy, generic transferable skills, employability, context.

## **Where do graduates Develop their Enterprise Skills? The Value of the Contribution of Higher Education Institutions' Context**

### **Introduction:**

The concept of enterprise skills evolved during the past years from the limited focus on starting-up of new businesses to a more wide-ranging concept. This concept considers relationships between HEIs, industries and the community in ways that promote new opportunities and allow for sustainability of HEIs' own autonomy (Gibb, 2002). Similarly, it also considers developing enterprising people equipped with a wide range of transferable skills (Davies, 2002; Matlay and Westhead, 2005; McLarty *et al.*, 2010).

The range of enterprise skills varies widely since the word enterprise could mean different things to different people. The wide scope of the word enterprise comprises 'soft' interpersonal skills (Davies, 2002) and more 'functional' entrepreneurship skills (Volkman *et al.*, 2009), where the latter focus on the skills necessary for the start-up of new businesses including, for instance, finance, marketing, law and networking (Gibb, 2002). Therefore, it is essential to clarify how enterprise skills are defined in any context discussing them (Draycott and Rae, 2010). This study explores the development of generic transferable 'soft' enterprise skills that are valuable for all graduates, whether employed or self-employed. In this context, Rae (2007) defined enterprise skills as *'the skills, knowledge and attributes needed to apply creative ideas and innovations to practical solutions'* (p.611).

Nabi and Bagley (1999) proposed three main categories of 'soft' enterprise skills including: personal skills, communication skills, and problem-solving skill, where this template of skills was used in this study. Personal skills include a number of skills such as being up for responsibility, ability to assess situations and time management. Communication skills include skills such as good written communication and listening skills; while problem-solving skills include skills such as decision-making, researching and reflective thinking. Therefore, these 'soft' enterprise skills are also referred to as 'behavioural skills' since they affect the way in which different tasks are carried out (Broad, 2007).

These enterprise skills are also related to employability and career development since they emphasise enabling skills and not just knowledge. Therefore, 'soft' enterprise skills are essential not

only for graduates planning to become independent entrepreneurs and start their own business, but also for those who want to successfully compete in the employment market. Despite the growing recognition of these skills by employers (Rae, 2007; Lowden *et al.*, 2011), graduates in general find it difficult to transfer from education to employment, particularly in light of the growing number of graduates from various fields (Lowden *et al.*, 2011). At the same time, a number of studies have shown that employers are generally dissatisfied by the level of skills demonstrated by recent graduates in the marketplace (AGR, 2008; Lowden *et al.*, 2011). Such issues have, thus, highlighted the need to investigate the value of the contribution of HEIs' context in this regard, which, thus, lead to this study's questions:

- Where do graduates develop their enterprise skills; in HEIs or employment contexts?
- Does the context impact the development of graduates' enterprise skills?

This study was conducted in the pharmacy context to explore where graduates develop their enterprise skills by investigating the impact of HE and employability contexts on their development. By graduates, the study refers to those who have completed their pharmacy undergraduate studies within a year or less. Previous work by Wright *et al.* (2014) highlighted the heterogeneity of institutional contexts in family firms and their distinctive impact on the behaviour, strategies and performance of stakeholders. Wright *et al.* (2014) examined contexts particularly with regard to institutional and organisational dimensions. This study, however, examined context notably in respect to a) disciplinary context in HEI, and b) specific jobs-related contexts in employment/real-world. Consequently, the significance of both, HE and employment/real-world contexts, are explored in relation to the development and demonstration of enterprise skills. The study links together opinions of pharmacy employers working in the retail, industry and hospital sectors of pharmacy who might believe it is their role to develop these skills, with the opinions of academics who might agree or disagree with employers as to how graduates' enterprise skills are developed, and whose responsibility it is to develop them.

### **The Pharmacy context**

The pharmacy context was conducive to this study as most undergraduate pharmacy courses include a level of experiential learning (Sosabowski and Gard, 2008) to support the teaching of various

practice and science-related subjects. Experiential learning involves embedding various teaching methods and interventions that can support the development of graduates' 'soft' enterprise skills through education 'into' enterprise (Gibb, 1993a,b,c). Thus, pharmacy graduates are expected to present with a range of enterprise skills, which they are expected to develop within the different practice and science-related disciplinary contexts during their studies. This supports the aim of this study in investigating the value of the contribution of HEIs' contexts in developing graduates enterprise skills.

Undergraduate pharmacy education in the UK is offered by 29 HEIs across the UK through a four-year Master of Pharmacy (MPharm) course. Student also need to complete a one pre-registration year to fulfil the requirements of the General Pharmaceutical Council (GPhC) and become registered UK pharmacists.

Pharmacy courses include various modules related to the two main contexts of pharmacy including the science and practice of pharmacy. Typically, students in year one study the basics of chemistry, math, physiology and biology, while being introduced to pharmacy practice and the academic skills required during their studies. In the second and third years, students engage more thoroughly in medicinal chemistry mathematics, formulations and pharmaceuticals, pharmacology, therapeutics, analytical chemistry and pharmacy practice. In these years, most programmes include a level of experiential learning and involve students in preparation of personal reflective portfolios (Sosabowski and Gard, 2008). In the fourth year, students usually engage in research projects where they produce, analyse and reflect on data.

The number of UK pharmacy graduates has increased from about 2,000 graduates in 2006 to around 2,900 in 2010 (NHS, 2010). The career paths for these graduates vary, where they involve practice contexts in retail/ community pharmacy and hospital pharmacy careers, as well as science contexts in pharmaceutical industry (Jesson *et al.*, 2006). Consequently, in addition to the different science and practice related contexts during HE, the different career paths for pharmacy graduates also represent different practice and science related contexts where they are expected to demonstrate their skills. This also supports the aim of this study as to where graduates develop their skills and the value of the contribution of HEIs' context in this regard.

## **The significance of developing graduates' enterprise skills**

The need for individuals who are capable of demonstrating the skills necessary to fulfil organisational tasks effectively has been stressed by several authors (e.g. Mallon, 1998; Sullivan, 1999; Templer and Cawsey, 1999; Rae, 2007; Rae, 2010; Lowden *et al.*, 2011). NSTF (2000) and CIHE (2003) also highlighted the need for HE graduates who can compete at an international level, and demonstrate a level of thinking and behaviour, which allows for developing various business ideas and achieving effective enterprising environments and organisational growth. In the pharmacy context, the need to develop graduates' soft enterprise skills has been emphasised (e.g. Refai and Thompson, 2014; The Expert Group Report, 2008), particularly in light of the significant role that pharmacy plays with regards to innovations and spin-offs in the field, as well as optimising the value of exploiting innovations, knowledge transfer and commercialising of technologies (The Expert Group Report, 2008).

Schofield (1996) contended that employers tend to prefer undergraduates with a second class degree, who are capable of demonstrating a range of transferable enterprise skills, over postgraduates without them. Despite that employers in different employment contexts would generally have different evaluation criteria of graduate skills (AGR, 1995), there seems to be a growing emphasis toward graduates acquiring a broad range of skills that will enrich their self-reliance and confidence irrespective of the sector where they would work (e.g. AGR, 1995; Binks and Exley, 1992; Brown, 1989; Cotton, 2001; Green, 1990; Harvey *et al.*, 1997; Watts and Hawthorn, 1992).

Consequently, HEIs are increasingly attending to the issue of developing graduates' enterprise skills (AGR, 1995; Rae, 2008; Skills and Enterprise Network, 1994). Rae (2007) contended that inclusion of activities that are relevant to employability should be a central part of the learning process. Teaching approaches and interventions that support the development of enterprise skills have also been stressed (Fayolle, 2013, Refai *et al.*, 2015). Furthermore, Draycott and Rae (2010) argued that enterprise should be built-in as a fundamental part of the 'survival skills' that are essential for young people to start their lives and build their portfolios by having the necessary flexibility, continuous learning skills and diversity.

Despite this growing recognition, a recent study by the SCRE centre at the University of Glasgow showed that employers nowadays are not satisfied by the level of employability skills demonstrated by recent graduates such as utilising technology, demonstrating leadership, working in teams, taking measured decisions and commercial awareness (Lowden *et al.*, 2011). This issue was also emphasised by the AGR (2008) survey, which showed that 30-55% of employers find it difficult to find graduates who can present with the necessary level of skills. This lack of 'soft' skills might be related to the point that the emphasis in enterprise education (EE) in HEIs is generally on entrepreneurship and the development of 'functional' skills in certain business subjects, rather than enterprise and the development of 'soft' skills in a way that crosses the spectrum of various disciplines (Draycott and Rae, 2010; Hytti and O'Gorman, 2004).

### **Developing enterprise skills in HE**

HEIs work to develop graduates' enterprise skills through EE, which is defined as *'the processes or series of activities that aim to enable an individual to assimilate and develop the knowledge, skills, and values required to become enterprising'* (Broad, 2007, p.5). According to Perren (2003), developing enterprise skills is actually more difficult than developing technical, or occupation-specific, skills of students, which makes challenges of EE related not only to the content, but also to the means and processes by which it is delivered, assessed and accredited (Heinonen, 2007). Refai *et al.* (2015) and Gibb (2006) argued that the development of enterprise skills is best achieved when EE is applied in a holistic manner. Rae (2004) agreed to this and added that EE should span the spectrum of different business and non-business disciplines. From another perspective, Whiteley (1995) stressed that one of the objectives of EE is to bridge between study and the working environments. For that, Rae (2007) emphasised the need for strong connections between EE and employability even though this is expected to impose further challenges on educational systems. However, there are still questions and debates regarding the best teaching approaches that would produce enterprising graduates and the most effective ways of delivering EE (Heinonen, 2007; Henry *et al.*, 2005; Kuratko, 2005; Pittaway and Cope, 2006; Refai *et al.*, 2015).

The development of 'soft' enterprise skills is supported by 'informal learning' (Broad, 2007). According to Broad (2007) and Conner (2009), informal learning is the means by which skills, attitudes, values and knowledge are built daily through multiple ways as experiences, educational impacts and the

surrounding environment including people, resources and media. Conner (2009) mentioned that 75% of learning in institutions takes place through informal learning. Yet, education in HE takes place mostly through formal, rather than informal, learning (Survey of Entrepreneurship, 2008). Thus, most of the informal learning in HE happens unintentionally, and therefore significant benefits that can be derived from intentional informal learning are lost (Conner, 2009). These benefits can be enhanced through proper learning development strategies and techniques for managing the teaching and learning processes (Conner, 2009).

Informal learning can be enhanced through the application of interactive experiential learning approaches across disciplines, which is expected, thus, to support the development of a range of enterprise skills (Klapper and Refai, 2015; Refai et al., 2015). Yet, Clanchy and Ballard (1995) argued that the generic skills developed during HE are affected by the disciplinary knowledge that students learn while developing those skills, where such disciplinary knowledge is expected to affect the way in which these skills are assumed. Jones (2009) agreed to this and mentioned that the development of generic skills is implicit in the educational process, and is affected by the disciplinary culture in which these skills are developed.

### **Methodology and data collection**

This qualitative exploratory study was conducted in the context of pharmacy education and pharmacy employment sectors in the UK. Qualitative research supports the exploration and understanding of human experiences (Ellis and Crookes, 1998; Polit and Hungler, 1997). The study adopted a social constructionist paradigm in order to support the consideration of various views relevant to the different contexts considered in the sample (Refai et al., 2015).

Data was collected through interviews with pharmacy employers and pharmacy academics as experiences of participants are best understood through qualitative means that bring the researcher closer to participants in the study (Denzin and Lincoln, 2003). Convenience sampling was applied to select the first 3 interviewees from each: employment and academia, then snowball sampling was applied. Interviewees from academia were contacted by email, where those interested were requested to reply and provide their consent to take part in the research, while interviewees from employment were contacted in person at their workplace. Thirteen pharmacy employers were

selected from ten different organisations from the retail, hospitals and industry sectors, as shown in table 1. More retail pharmacists were included in the sample due to the fact that retail represents the largest sector for pharmacy graduates, which makes retail pharmacists the most exposed to pharmacy graduates.

**Table 1: Selection of employers from 10 organisations**

Organisation	Sector	Interviewee
1	Retail	P1
1	Retail	P2
2	Retail	P3
3	Retail	P4
3	Retail	P5
4	Retail	P6
5	Retail	P7
6	Hospital	P8
6	Hospital	P9
7	Hospital	P10
8	Industry	P11
9	Industry	P12
10	Industry	P13

Similarly, twenty pharmacy academics were selected from seven different HEIs; the sample included a mixture of academics teaching science-related and practice-related subjects, as shown in Table 2.

**Table 2: Selection of academic respondents from 7 HEIs**

HEIs	Teaching subject	Interviewee
1	Science-related	A1
1	Practice-related	A2
1	Science-related	A3
1	Science-related	A4
2	Practice-related	A5
2	Practice-related	A6
2	Science-related	A7
2	Science-related	A8

3	Practice-related	A9
3	Practice-related	A10
3	Practice-related	A11
4	Practice-related	A12
4	Practice-related	A13
5	Practice-related	A14
5	Science-related	A15
6	Practice-related	A16
6	Science-related	A17
6	Practice-related	A18
6	practice-related	A19
7	Science-related	A20

A second set of interviews was also carried out to further support the first round. This second set included interviews with three pharmacy employers from the three sectors, and four pharmacy academics including two teaching science-related modules, and two teaching practice-related modules. The second set of interviews aimed to support the trustworthiness and rigour of the research by allowing further reflection on the views of interviewees, and supporting the discovery of points of mutual understandings. These interviews also served to minimise personal bias by supporting interpretations of the researcher.

All interviews were conducted, recorded and transcribed by one of the co-authors of this paper in order to minimise bias. Data was analysed using Thematic Analysis (TA) as described by Braun and Clarke's (2006) six-step process including, becoming familiar with the data, generating initial codes, searching for themes, reviewing them, defining and naming them, and producing the report. The following section describes the themes that emerged from the analysis of data collected. This analysis section is followed by a discussion of these findings in relation to the study's questions and relevant literature.

## Results

### *The degree of satisfaction with the level of skills demonstrated by recent pharmacy graduates*

Despite being satisfied by graduates' level of knowledge, employers were generally concerned about graduates' ability to demonstrate some of the essential enterprise skills, especially their ability to demonstrate confidence and good communication skills; Employer 2, for instance, highlighted:

*'Pharmacists usually get exposed to real life situations immediately after finishing their studies, and they find themselves unable to deal with people and manage different situations'*. Employers stressed the importance of these skills, particularly that pharmacists should be confident enough to establish communication channels with patients and other professionals in the health sector. Other skills that employers referred to as lacking in recent pharmacy graduates included poor organisational skills, management skills and personal skills including bad time management and lack of team spirit in accepting many of the tasks assigned to them once they are hired.

Employers mentioned that pharmacy education does not focus on developing pharmacists' enterprise skills as it does not sufficiently link the educational process to various aspects of the real-world. Employers saw that the pharmacy educational process emphasises certain areas of pharmacy, which are basically focused around clinical and practice-related aspects of the discipline, and does not place the same emphasis on the science-related ones; e.g. Employer 10 reflected: *'... when you place more emphasis on clinical skills I guess it'll be at the expense of pharmaceuticals and industry skills... and universities do tend to make the clinical part more exciting and the chemistry part is usually a bit more dull'*. For that, employers described graduates to be too clinically focused, and saw that as a reason for graduates being generally reluctant to accept certain jobs that are not purely clinical, like for example working in a dispensary or in a laboratory, which has affected graduates' ability to demonstrate some of the necessary enterprise skills, as mentioned by Employer 8: *'Recent graduates think more of only the clinical skills, and don't appreciate the need for delicate handling of people for example...'*

Employers from the industry sector were particularly dissatisfied by the level of enterprise skills demonstrated by recent pharmacy graduates. They agreed with other employers, and added that the increased clinical focus in HE is leading to graduates who are underprepared for jobs in industry and research, and who cannot see how their knowledge applies in these contexts since the practical learning and training during their HE was too clinically focused. This has, perhaps, led to graduates who prefer careers in retail or hospitals rather than industry and research; e.g. Employer 11 highlighted: *'...The pharmaceutical industry is crying out loud for good competent pharmaceutical scientists... Pharmacists aren't capable enough, they are scared, they're not exposed, and they're not confident. I believe they go more for careers in hospitals and retail because they're more exposed to*

*these environments in university and they feel like this is what we know... Universities should expose students more to lab experiments and allow them to take part in research... Unfortunately, pharmacy education doesn't encourage scientists...'*

Academics, on the other hand, saw that the importance of enterprise skills in the career of a pharmacist is well addressed in pharmacy schools. Pharmacy academics mentioned various teaching and learning activities that are applied to develop graduates' skills, besides developing their knowledge, through various real-life practical examples. Academics also agreed that pharmacy schools increase the application of interactive teaching and learning activities as students progress in their studies in order to emphasise the development of enterprise skills more as students approach their final year; Academic 13 mentioned: *'...we start with more didactic approaches and gradually move the students through more innovative approaches to enhance their critical evaluation as they move on...'*

Nevertheless, academics agreed with employers that pharmacy graduates still lack some of the essential skills, and also agreed that the ability to demonstrate confidence and to communicate are among the main skills that are lacking as highlighted by Academic 5: *'I think confidence is an important area, and I think pharmacy probably hasn't been very good at that over the last years...'* . Despite that, academics still believed that pharmacy graduates are well-prepared, and have the necessary knowledge and skills to meet the needs of the real-world in whichever sector they decide to go for as mentioned by Academic 17: *'I think we lay a good groundwork for them to go on...'* . Academics also added that the one-year pre-registration that pharmacy students have to undergo offers them the opportunity to sharpen their skills and develop them even more.

#### *The importance of the real-world in developing enterprise skills*

While employers agreed that the development of graduates' enterprise skills is their responsibility as reflected by Employer 4, for example: *'Usually pharmacists build these skills after they graduate as part of their work and experience'*, most academics saw it as a shared responsibility between HEIs and real-world organisations; e.g. Academic 8 mentioned: *'I think it's a shared responsibility and I think our students are very lucky because they have a lot of training in the hospital and they pick up on a lot of skills there'*. Yet, some academics saw that it is mostly the responsibility of HEIs to develop

graduates' enterprise skills as highlighted by Academic 10 for example: *'As a vocational degree I guess most of the responsibility lies with us... our aim is to produce graduates who are confident to be pharmacists, and to be a good pharmacist you certainly should have a good grounding in those fields and if we don't do that we're failing our duties to the profession...'*

Academics explained that the lack of skills shown by recent graduates could possibly be justified by the fact that these graduates haven't been exposed enough to the real-world, and that the way in which HE impacts the development of skills is not similar to that of the real-world as explained by Academic 6: *'... there is an expectation amongst employers that we will give the students these skills, but actually the way the students build these skills is context specific, i.e. they can't build them outside the workplace...'*, and Academic 13: *'I actually think it's kind of that hiatus where you actually have to transfer your skills into the new environment and context, and I think that whenever you transfer you are actually very vulnerable as a learner and quite needy'*.

Consequently, academics agreed that employers cannot be completely satisfied by the level of graduates' skills until these graduates engage in the real-world; e.g. Academic 2 highlighted: *'You would expect to see a difference between a junior medical student and an F1 doctor wouldn't you? And the same goes for pharmacists! Maturity comes with dealing with these skills in the real-life situations, which are different from here'*. Employers also agreed with academics on this point; e.g. Employer 10 highlighted: *'...even if you are taught these skills at university and in your pre-registration you would still need to develop skills through real-life experience...'*

In this regard, academics emphasised that pharmacy schools do not aim to produce specialised retail, industry or hospital pharmacists, and definitely not chief pharmacists. Rather, pharmacy schools aim to graduate day-one pharmacists who have the general knowledge and awareness about pharmacy and its options, and have the necessary level of skills expected from recent graduates that would enable them to choose from among the available career options, and accordingly specialise in the area they prefer; e.g. Academic 2 mentioned: *'We are not producing chief pharmacists, we're not producing people who can be on call in out-of-work hours, we're not producing people to be consulted about real patient problems. We're producing day-one graduates who are expected to have the skills you would expect from a day-one graduate'*.

At the same time, academics agreed that pharmacy schools could work harder on developing graduates' enterprise skills. Academics suggested engaging students more in inter-disciplinary practical learning activities that cross the spectrum of the whole curriculum, where, so far, the emphasis in applying these learning activities has been predominantly on clinical and practice-related pharmacy subjects, rather than science ones; e.g. this was highlighted by Academic 4: *'Oh yes, there is more focus on developing pharmacists' skills in the clinical side'*. Employers supported this point and emphasised that HEIs should contribute more towards developing graduates enterprise skills; e.g. Employer 4 mentioned: *'I believe universities should take part of the responsibility to develop pharmacists' skills before they graduate'*.

Academics added that real-world organisations can play a more positive role to support HEIs in developing graduates' enterprise skills by offering placements to students, so that they can learn the theory and realise the application of that theory at the same time. To achieve this, more collaboration between pharmacy schools and real-world organisations would be needed. However, such collaboration is often lacking, especially given that many of these organisations request payments in return to placements offered to students, and pharmacy schools are not usually funded for such placements; e.g. Academic 6 reflected: *'Students need to go into the workplace to develop their skills, but a lot of employers want to get paid to have our students, and yet they want the students to have these skills! Achieving these expectations is not that easy when the employers want money'*.

## **Discussion**

This section discusses the study's findings in relation to the two questions of the study as well as relevant literature.

- Where do graduates develop their enterprise skills; in HEIs or employment contexts?

Several studies have indicated the lack of satisfaction among employers about the level of enterprise skills demonstrated by recent graduates (Lowden *et al.*, 2011); and other studies have looked at these skills in the wider framework of employability skills (AGR, 2008; Cotton, 2001). This study also revealed a general dissatisfaction by the level of enterprise skills demonstrated by recent pharmacy graduates in the marketplace. Here, HEIs were blamed by employers for not preparing graduates for

the job, and not helping them relate that knowledge to the real-world. Based on that, employers agreed that, so far, the development of graduates' enterprise skills has been mainly their responsibility.

Findings of this study supported the notion that development of graduates' enterprise skills should be regarded as a shared responsibility between HEIs and the real-world. Therefore, HEIs should not be singled out for blame for the low level of graduate skills. Here, real-world organisation can play a major role in supporting graduates in refining and enhancing their skills. This agrees with Whiteley (1995) who stressed that one of the objectives of EE is to bridge between study and the working environment, and with Rae (2007) who emphasised the need for strong connections between EE and employability.

- Does the context impact the development of graduates' enterprise skills?

In this research, employers' were dissatisfied by the growing clinical focus of graduates in the way they think and demonstrate their skills. This dissatisfaction was clearly relevant to academics' discussions about embedding more practical teaching and learning activities in practice-related, rather than science-related, modules. This indicated that EE is not applied in a holistic manner in pharmacy education, which is expected to impede the achievement of its aims and objectives. This goes in line with Refai *et al.* (2015), Gibb (2006) and Rae (2004) who argued that the development of enterprise skills is best achieved in a holistic manner that spans the spectrum of different business and non-business disciplines. From another perspective, Heinonen (2007) outlined that EE faces challenges related not only to the content, but also to the means and processes by which it is delivered, assessed and accredited.

Furthermore, since students' enterprise skills are largely developed in clinical/practice-related contexts, it is very likely that this is impacting the development of those skills, particularly that employers described graduates as being too clinically-focused and unable to demonstrate their skills efficiently in non-clinical/practice-related contexts. Such an argument is supported by Clanchy and Ballard (1995) who mentioned that the disciplinary knowledge that students learn while developing their generic skills will affect the way in which those skills are developed, and with Jones (2009) who saw that the development of generic skills is affected by the disciplinary culture in which they are

developed. This also highlights Rae's (2007) emphasis to include activities during HE, which are relevant to employability, as a central part of the learning process.

Consequently, the findings of this study support that the development of enterprise skills is context-specific to a significant extent. Despite examining context with regard to institutional contexts in family firms, Wright et al. (2014) had a similar argument when they highlighted the distinctive impact of heterogeneity of institutional contexts in family firms on the behaviour, strategies and performance of stakeholders. Similarly, this study highlighted the distinctive impact of various disciplinary contexts in HEIs on the development and demonstration of graduates' enterprise skills. For example, employers mentioned that pharmacy graduates generally demonstrate a better level of skills in hospital jobs than in industry jobs, which could be referred to the fact that pharmacy graduates develop their enterprise skills mainly in clinical/practice-related modules than in science-related ones; thus, making the skills they develop more relevant to clinical/practice-related contexts (e.g. hospitals) than science-related ones (e.g. industry). From another perspective, this study's findings support the notion that it is quite hard for HEIs to produce graduates with a level of enterprise skills that satisfies employers completely. This is because HEIs develop students' enterprise skills in discipline-relevant contexts, while employers will require skills that are relevant to the job/career, which need to be developed in job/career-relevant contexts in the real-world.

Consequently, this study shed light on the development and demonstration of enterprise skills at two different stages including HE and employment, while acknowledging that more stages could be involved. While enterprise skills are developed in discipline-related contexts during HE, these same skills are developed in work/job-related contexts in the real-world during employment. Consequently, the same enterprise skills might be developed at different stages, however in different contexts, where each of these contexts impacts the development of enterprise skills in a different way. The enterprise skills in the context of disciplines develop mostly during HE with a more notable increase as students approach their final year, when they engage more closely in interactive learning activities. On the other hand, enterprise skills in the context of jobs/careers develop mostly through real-life experiences during employment. Yet, this study supports the initiation of the development of graduates' enterprise skills during HE through exposing students to more real-life situations that cross the spectrum of all subjects. At the same time, the study supports offering real-world placements

during HE that support the development of enterprise skills in real-life contexts, and accordingly produce graduates who are more likely to meet the demands of employers.

## **Conclusions**

In this paper, the authors set out to explore where graduates develop their enterprise skills, while investigating the value of the contribution of HEIs in this regard. The study showed that graduates develop their skills in HE and employment contexts, where each of these contexts impacts the development and demonstration of these skills. Therefore, collaboration between both HE and the employment sectors is essential in order to encourage the development of graduates' enterprise skills in ways that meet the demands of employers, and support graduates' transition from HE to the real-world.

The findings of this study showed that the contexts in which enterprise skills are developed will affect the way in which these skills are developed and demonstrated. Furthermore, the study supports the notion that developing enterprise skills in a certain context will not necessarily support the ability to demonstrate those skills in other contexts. Thus, developing enterprise skills as well as the ability to demonstrate those enterprise skills is context-specific to a significant extent.

To support this view, EE in HEIs should mirror real-life contexts during the educational process through both the different interactive learning activities applied and placements. Besides supporting students in relating their knowledge to practice, this should support students in developing their skills in contexts that are similar to real-world contexts, which they will encounter after they graduate. It is understood that this view might have some implications on the application of EE in HEIs, particularly that many degrees now offer graduates a variety of employment options of different nature/context, such as pharmacy degrees where graduates can choose careers in practice, hospitals, industry...etc. Yet, this view might encourage HEIs to offer multiple areas of specialisation within a degree, so that students could engage in contexts that match with their interests before they graduate. Such contextualisation, which provides students with a reflection of various relevant real-world contexts, is seen in this study to support graduates in developing and demonstrating their enterprise skills at a level that is closer to employers' expectations.

In order to support HEIs in adopting this view, this study emphasises the significance of collaboration between HEIs and the employment sector. Similarly, the study also stresses the importance of delivering EE in a holistic manner across all modules in HEIs. In pharmacy education, for example, this study supports developing graduates' enterprise skills equally in both science-related and practice-related modules, which is seen to help students develop their skills in science and practice contexts that relate to various jobs/careers in the marketplace.

Such an argument might raise a question of: How transferable are transferable skills? According to this study, the more a person is exposed to contexts in which he/she is given an opportunity to develop enterprise skills, the more transferable this person's enterprise skills become. Otherwise, it cannot be expected to have someone who is capable of demonstrating his/her enterprise skills in various contexts similarly.

Therefore, the development of enterprise skills should not be seen as a responsibility of one party, and HEIs could not be solely responsible for developing graduates' enterprise skills. Rather, the development of graduates' enterprise skills is a shared responsibility between HE and employment sectors since the development of those skills is a continuous process that is impacted by the context(s) in which the skills are developed and demonstrated.

Although generalizability cannot be claimed for findings of any qualitative study, this study could have some wider relevance and value to other disciplinary and employment contexts than pharmacy. Yet, the authors acknowledge this limitation and recommend further studies that look into other contexts, where application of quantitative in addition to qualitative measures can be useful. Similarly, the authors call for future studies that acknowledge the views of students regarding how and where they develop their enterprise skills.

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