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Real estate education: an investigation of multiple stakeholders

Joanna Poon and Mike Hoxley
School of Architecture, Design and the Built Environment,
Nottingham Trent University, Nottingham, UK, and
Willow Fuchs
University of Nottingham, Nottingham, UK

Abstract

Purpose – This paper seeks to report the detailed findings of a Centre for Education in the Built Environment (CEBE) funded study into real estate programmes of study in UK universities. The aim is to critically evaluate the gaps in the professional practice firm employers' expectations of real estate graduates, real estate graduates' perceptions of what they attained during their studies and universities' views of the content of Royal Institution of Chartered Surveyors (RICS) accredited real estate courses.

Design/methodology/approach – The paper presents the research findings from questionnaire surveys of professional practice firm employers and graduates and of interviews with RICS accredited courses providers and with the human resource managers of major surveying firms.

Findings – The findings of the questionnaire survey should provide some comfort to real estate education providers since the top employer rated knowledge and skills are by and large found in most programmes of study. Universities would argue that they cannot actually do much about the personal attributes that graduates possess. There are significant differences in the views of employers and graduates and the only area of knowledge in which graduates currently exceed the requirements of employers is "research methods". The comments made by both groups suggest that practical experience is considered to be missing from courses but most universities would not see this as one of their principal areas of responsibility. The RICS accredited course directors mentioned that they provide alternative simulated work experience for students. Apart from practical experience, the human resource managers also raised concerns about graduates' levels of commercial awareness.

Practical implications – The findings of this research will enable those designing real estate programmes of study in real estate in the UK and around the world to ensure that their curricula are current and relevant to the needs of employers, from a UK perspective.

Originality/value – The paper presents the findings of questionnaire surveys of employers and graduates and of interviews with RICS accredited courses providers and human resource managers, which suggest that employers and graduates would like to see more practical skills and knowledge incorporated within university curricula.

Keywords Attributes, Education, Employers, Graduates, Knowledge, Real estate, Skills, Universities, United Kingdom

Paper type Research paper

1. Introduction

The global recession has hit the world economy hard, and although the real estate market has shown some resilience, it has also suffered, affecting the labour market for real estate professionals. Many real estate professionals have been made redundant or have taken on extra or different responsibilities in order to retain their employment. In these circumstances, it may be that only sufficiently skilled real estate staff remain in full-time employment. There is a need to know if these graduates are in fact adequately qualified and whether universities are preparing graduates sufficiently well for the workplace and the current economic climate. It is also important to be aware of employers' expectations of graduates' competencies in order to assist academic

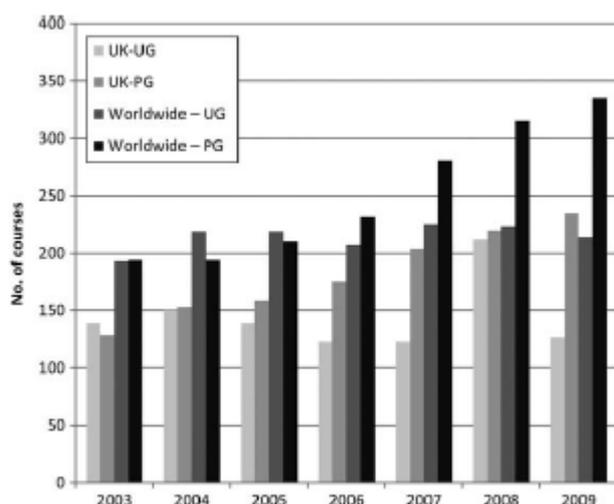
institutions with the design of courses which aim to produce graduates who are equipped to meet employers' expectations.

The number of "general practice" graduates from the Royal Institution of Chartered Surveyors (RICS) accredited courses has increased in recent years, and in 2008 accounted for a total of 1,787 graduates and 2,293 student starters of whom 892 and 1,162 respectively were postgraduate students (RICS, 2010a). The total "general practice" graduate and student starters constituted 35 per cent and 24 per cent, respectively, of the 14 major RICS professional groups (RICS, 2010a). A systematic review of real estate education throughout Europe, by D'Arcy and Taltavull (2009), found that there has been an increase in the number of students and education providers in this area and attributed this expansion in real estate education, mostly at the postgraduate level, to the growing and changing European real estate market. They also suggested that this growth and change has transformed what is required in a typical real estate skill set, increasing the need for economics, finance and business skills.

RICS accredited postgraduate courses have now become the major supplier of future surveyors in the UK. The number of new students on this type of course was 5,156 in 2008 as compared with 419 in 2000 (RICS, 2010a). The number of postgraduate students studying RICS accredited postgraduate degree courses, as a percentage of the whole population of new students, increased from 13 per cent in 2000 to 55 per cent in 2008 (RICS, 2010a) (see Figure 1). In addition, since 2004 the number of UK RICS accredited postgraduate courses has increased beyond the number of RICS accredited undergraduate courses (RICS, 2010a). In 2009, there were 235 postgraduate courses as compared with only 127 undergraduate courses in the UK, while there were 335 postgraduate courses as compared to 214 undergraduate courses worldwide (RICS, 2010a) (see Figure 2). This has followed the national trend of an increase in postgraduate education generally. In the past ten years or so has seen a spectacular growth in postgraduate education in UK higher education institutions with a 36 per cent jump in the number of students studying for higher degrees (Connor et al., 2010). This is a dramatic switch in emphasis which makes now a good time for evaluation of the education system and an investigation into whether or not real estate programmes are creating graduates with the appropriate skills and knowledge that employers require.

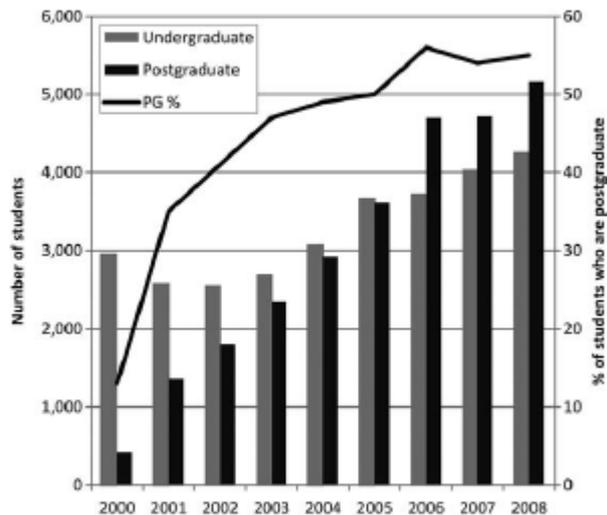
Research investigating employer expectations of built environment graduates has been conducted in various countries over the last two decades. Previous research has focused on the expectations of surveying graduates in Hong Kong (Davies et al., 1999), South Africa (Massyn et al., 2009) and the USA (Galuppo and Worzala, 2004 and Weinstein and Worzala, 2008) but there has been little research studying competencies of surveying graduates in the UK. There has been some research conducted in the UK with a building surveying focus (Hoxley and Wilkinson, 2006; Wilkinson and Hoxley, 2005) but the skills, knowledge and competency requirements of UK real estate graduates has not yet been investigated.

Figure 1. Number of RICS accredited degree courses in the UK and worldwide in 2003 to 2009



Source: RICS (2010a)

Figure 2. Number of student starters for RICS-accredited degree courses in 2000 to 2008



Source: RICS (2010a)

This project, funded by the Centre for Education in Built Environment, aims to fill the gap in previous research and examine the critical factors and essential elements that are necessary for real estate courses in the UK to produce graduates valued by professional practice firm employers.

The key research questions of this project included:

- . What is the required breadth and depth of content of real estate courses?
- . What knowledge, skills and competencies do real estate professionals need in order to deliver high quality service to their clients?
- . Do the knowledge, skills and competencies of real estate graduates match real estate consultancy expectations?
- . How, if at all, should real estate courses be modified?

The objectives of the research were to investigate:

- . The breadth and depth of technical knowledge required by real estate professionals.
- . The breadth and depth of business and professional skills required by real estate professionals.
- . Whether the course content of RICS accredited real estate courses is sufficient to equip real estate graduates for careers in real estate consultancy.
- . Whether any changes are required to relevant real estate courses.
- . The expectations of real estate graduates from the real estate consultancy companies.

This paper presents the research findings of questionnaire surveys with employers and graduates and of interviews with RICS accredited course providers and the human resource managers of major surveying firms. The employer samples are professional practice firms. The aim of this paper is to evaluate critically the gaps in the employers' expectations of real estate graduates, real estate graduates' perceptions of what they achieved during their studies and universities' views of the content of RICS accredited real estate courses.

2. Policy research of employers' expectations of graduates' competencies

The Council for Industry and Higher Education (CIHE) has conducted a series of studies concerning graduates' competencies in the last few years. Archer and Davidson (2008) conducted research to identify what employers think and want from their graduate employees. Their findings were based on responses received from 233 employers employing over 750,000 people. The respondents included small companies (employing less than 100 employees), medium companies (employing between 101 and 1,000 employees) and large companies (employing more than 1,000 employees). Hence the survey captured views from a wide variety of companies. A total of 86 per cent of employers considered good communication skills to be important, yet many employers are dissatisfied with the ability of graduates to express themselves effectively.

Employers also think "soft" skills such as team working are vital and even more important than most "hard" skills although numeracy and literacy skills are considered essential by seventy per cent of employers. Sixty per

cent of international employers indicate that the graduates who have overseas professional work experience are more employable (Archer and Davidson, 2008). Charles Macleod, Head of UK Resourcing of PricewaterhouseCoopers echoed the importance of international experience, stating:

The value of (a student's) international experience goes beyond purely the acquisition of language – it lies in the ability to see business and personal issues from other than your own cultural perspective (in Archer and Davidson, 2008, p. 3).

The other important skills by employers identified in this report are: integrity, intellectual ability, confidence, character/personality, planning and organization skills and analysis and decision-making skills (Archer and Davidson, 2008). This report also revealed employer dissatisfaction in ascending order of importance with: lack of commercial awareness, analysis and decision-making skills, communication skills, literary (i.e. good writing skills), passion, relevant work experience, planning and organizational skills, confidence and personal development skills.

Connor and Brown (2009) from CIHE engaged in research to explore the value of graduates from the employers' perspective, their findings suggested that specific specialist skill and subject knowledge plus more generic personal skills such as analytical thinking, research, communication and planning skills as well as bringing in new ideas, added the most substantial value to the employers. They concluded that further efforts are needed by higher education institutions to ensure that graduates and postgraduates develop the capacities that business want, especially through more work experience and contacts with employers.

Connor et al. (2010), from CIHE, undertook research to investigate the qualities that senior managers and human resource (HR) directors value in postgraduates. The data were collected from senior managers and the HR directors of 56 businesses, being 40 responses to an online questionnaire survey and 16 responses through interviews. The employers rated "analytical thinking and problem solving skills" as the most important value when recruiting staff with a master's degree. The other values that are listed in order of importance are: subject-specific specialist knowledge, research/technical skills, new ideas/help innovate, future leadership potential, maturity and guaranteed high-calibre candidates. This research also identified issues of concern to employers when recruiting postgraduate students as: lack of commercial awareness, limited work experience, inability to market skills, unrealistic expectations, difficulty in adapting to non-academic environment and narrow focus/over-specialised.

Based on extensive research among employers, the Confederation of British Industry published *Employability and Work Experience – A Quick Guide for Employers and Students* (CBI, 2010). They identified competencies that make graduates more employable as: self-management, team working, business and customers awareness, problem-solving, communication and literacy, application of numeracy and application of information technology. In addition, CBI (2010, p. 3) emphasised:

[. . .] a positive attitude is the key foundation – this can be summed up as a can-do approach, a readiness to take part and contribute, openness to new ideas and a drive to make those ideas happen.

CBI (2010) suggested that employers should embed these competencies in any work experience schemes offered to students, such as internships or one-year placements. These experiences can be embedded through appropriate structuring of schemes, such as setting up employability-based tasks and activities during students' work experience, in order to enhance students' graduate employability. The CBI also encourages students to keep a record of tasks undertaken during work experience and evaluate the level of competencies achieved in order to identify areas for future personal development.

CBI (2010) distinguished between knowledge, skills and attributes when considering graduate competencies. The study reported in this paper has taken a similar approach when considering the competencies of real estate graduates. The next section will discuss the academic literature on graduate competencies.

3. Academic research of graduate competencies

3.1 Built environment literature

There have been several research studies investigating industry's expectation of built environment graduates and the potential for the reform of built environment courses across the world. Davies et al. (1999) and Wong et al. (2007) investigated employers' expectations of construction and surveying undergraduates in Hong Kong. The results of these two studies were used to inform the revision of the RICS accredited undergraduate surveying courses at Hong Kong Polytechnic University. The research method of these two studies was of a

quantitative nature and focused on gathering responses from graduates and employers. The researchers used a mixture of open and closed question surveys to collect data.

Massyn et al.'s (2009) research investigated whether construction management graduates in South Africa have the competencies needed by their industry. As with Davies et al. (1999) and Wong et al.'s (2007) research, it was also a quantitative-based study. Data were collected through a questionnaire survey that was sent out to contractors registered at Level 9 (i.e. those contractors considered capable of carrying out the highest value contracts), on the Construction Industry Development Board (CIDB) register in South Africa.

Hoxley and Wilkinson conducted RICS Education Trust funded research into the impact of the 2001 RICS education reform on building surveying. They targeted the course leaders of undergraduate building surveying courses in the UK. The responses were gathered through a questionnaire survey and a focus group meeting with the large national, mainly London-based, employers of building surveyors. Their research findings have been presented in Wilkinson and Hoxley (2005) and Hoxley and Wilkinson (2006) respectively.

3.2 Real estate literature

Poon et al. (2010) conducted an extensive literature review of research on real estate graduate competencies. They identified that there has been some research looking at required real estate skills and knowledge as well as the status of current courses, but conclude that the research is limited, especially in the UK.

Gibler et al. (2002) analysed the results of a survey of corporate real estate managers from Australia, Hong Kong, the UK and the USA. In this survey, managers responded to a number of questions in addition to rating the importance of 38 knowledge and skill areas to corporate real estate management. Respondents rated "strategic planning, real estate portfolio management, the organization's business, and negotiation and deal making" as "most important" and "foreign language, international finance/economics and tax management" as "least important", emphasising strategic and management skills over technical and financial skills.

Epley (2004) also attempted to identify the skills and knowledge needed by corporate real estate professionals. Corporate real estate executives completed a survey by ranking the areas of real estate decision making in relation to importance to their area of responsibility. The areas ranked most important were: management, leasing, development, real estate finance, acquisition and sales. Executives also identified a number of concepts and skills of importance as being in the areas of market interpretation, general (as opposed to specific) analysis, and people skills.

Callanan and McCarthy (2003) surveyed valuation and property management employers in New Zealand and discovered that they felt graduates lacked practical skills and knowledge and the ability to relate theory to practice, as well as a lack of knowledge of building construction and property development. Employers were, however, positive about graduates' analytical, computer and communication skills. They also surveyed students/graduates and found that graduates felt more practical experience should be included in valuation and property management courses. They were concerned about a lack of land economics, planning studies and practical commercial content.

Galuppo and Worzala (2004) reviewed academic literature, held discussions with focus groups of company representatives and surveyed real estate professionals and alumni from the University of Wisconsin-Madison real estate programme. In their literature review, they reported that there was some agreement on what courses were offered in typical undergraduate real estate programmes – real estate principles, finance and appraisal or valuation – and found, in their review of university web sites, that not many of these subjects were covered in the existing graduate real estate programmes in the USA. They found that employers preferred new graduates to have experienced a project-based curriculum, while professionals and graduates wanted a diversified curriculum, though they both felt that existing core courses/modules were all important, and rated financial and communication skills as most important but that statistics and technology skills were least important. These findings were used to develop a graduate studies real estate programme at the University of San Diego. Galuppo and Worzala (2004) recommended that programmes should encourage the development of all kinds of skills (technical, social and technological) and that they go beyond traditional business skills and incorporate a multidisciplinary approach. Weinstein and Worzala (2008) completed a similar study, building on Galuppo and Worzala's (2004) work, in which they interviewed educators, administrators and practitioners from 13 top real estate programmes in the USA about the elements needed to create successful graduates through these post-graduate programmes. They looked at newer post-graduate programmes and found that there were 11 themes that should be included in programmes to enhance real estate practice. The research identified that graduate programmes should be designed to produce graduates with the following key skills: decision-making, risk analysis, social and ethical responsibility, negotiation, critical thinking and problem solving, oral and written communication skills, leadership, use of technology and life-long learning.

Manning and Epley (2006) investigated whether real estate faculties in the USA were teaching the skills and competencies required by corporate real estate professionals. They used existing real estate management literature (see Epley, 2004; Gibler et al., 2002) that identified required skills and investigated whether real estate faculties were preparing graduates adequately (Manning and Epley, 2006). They found that results were mixed: some of the skills identified as required, or important, were being taught in graduate and undergraduate programmes, while others were not. In particular, there seemed to be inadequacies in the teaching of general business skills. There is further evidence from the literature, of dissatisfaction with the preparation of real estate graduates with the following areas needing improvement or a greater focus: specific real estate skills (strategic planning, real estate portfolio management, leasing, building construction, development, real estate finance, negotiation, deal making, acquisition and sales), and practical skills and knowledge (relating theory to practice) (Callanan and McCarthy, 2003; Epley, 2004; Gibler et al., 2002). Many of the studies discussed above (see Callanan and McCarthy, 2003; Massyn et al., 2009) concluded that there should be a re-evaluation of course curricula, and suggested that programmes should become more aware of stakeholder concerns and needs by incorporating improvements to equip graduates for industry more effectively. Many authors have also suggested ways to improve education in real estate and built environment programmes. These include: increasing practical skills training for students through the use of sandwich programmes, work experience, case studies, “on-site” training, site and “buddy” visits; by the inclusion of a business paper (Callanan and McCarthy, 2003; Wong et al., 2007); by improving the quality of interactions between students and academics; linking learning to industry; supporting the development of emotional intelligence; incorporating problem-based workshops and by including online learning components (Boyd, 2005).

Most of the research discussed above used a single data collection strategy. As mentioned in Fellows and Liu (2008), a triangulation research method has its advantages. The use of both quantitative and qualitative research methods means that the use of different data collection strategies can enhance the results as they can complement one another. Fellows and Liu (2008) stated that triangulation achieves high levels of authenticity and generalisation, and, most importantly, objectivity. Therefore, triangulation methodology has been adopted for this research.

4. Research methodology

The mixed method approach adopted for this study has involved data collection by questionnaire surveys, interviews with RICS accredited course providers and interviews with human resource managers of major surveying firms.

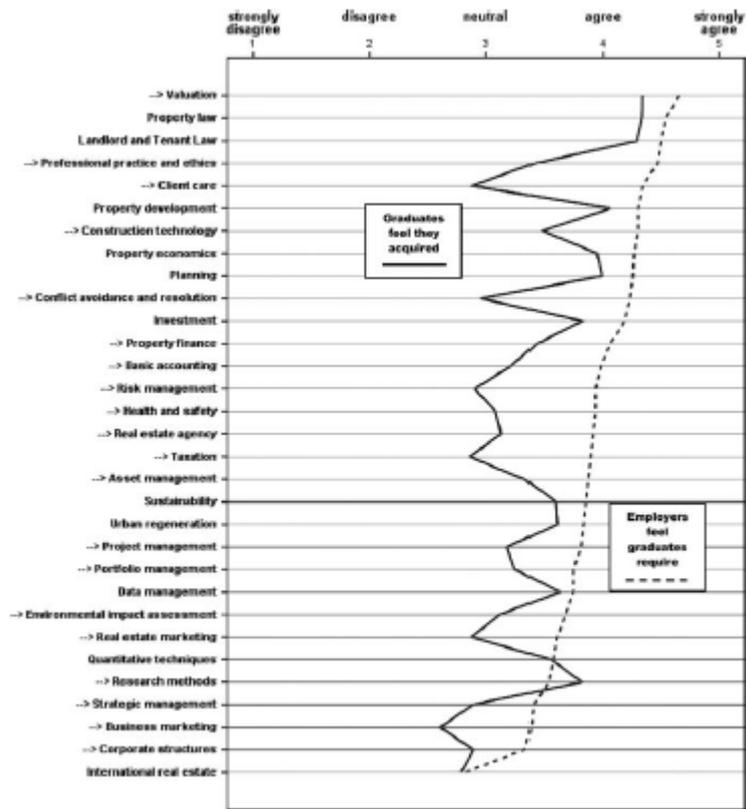
4.1 Questionnaire survey

After reviewing the literature, possible knowledge, skills, and attributes, were extracted for use in the questionnaire. Additional knowledge, skills, and attributes were drawn from reviewing module listings for university real estate courses offered in the UK, and identifying the most common themes. Lastly, a review of the RICS competencies for the eight real estate related Assessment of Professional Competencies (APC) pathways (RICS, 2006) resulted in additional knowledge areas being added to our original list. The research team then analysed this list and reduced it to a manageable size. Other real estate academics were consulted and the list was reduced to 31 knowledge areas, 20 skills and 21 attributes to be used in the questionnaire. There are therefore 72 characteristics in total (see Figures 3-5).

The questionnaire was constructed using SurveyMonkey (www.surveymonkey.com/), an online survey tool that allows for easy online survey distribution. For each of the 72 characteristics graduates were asked to agree/disagree with the statement “During my real estate studies I acquired (knowledge of/the following skills/the following attributes) . . .” by indicating their agreement to a five-point Likert scale (1 ¼ strongly disagree, 2 ¼ disagree, 3 ¼ neutral, 4 ¼ agree, 5 ¼ strongly agree). Free text comment boxes were also included, and participants were asked to list any additional knowledge, skills or attributes that they felt were important for graduates.

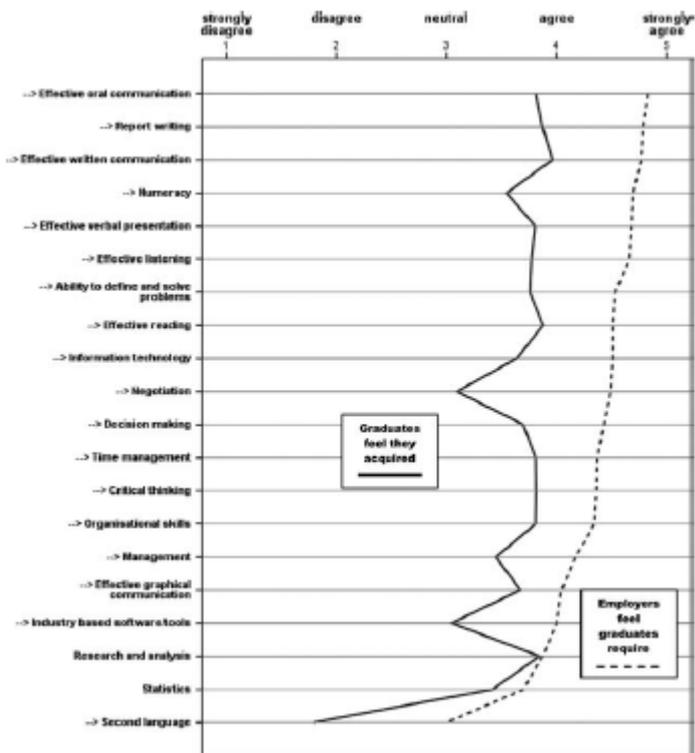
Figure 3.

Knowledge: comparison of what employers feel graduates require and what graduates feel they acquired during their studies



Note: --> Indicates a statistically significant difference ($p < 0.01$)

Figure 4. Skills: comparison of what employers feel graduates require and what graduates feel they acquired during their studies

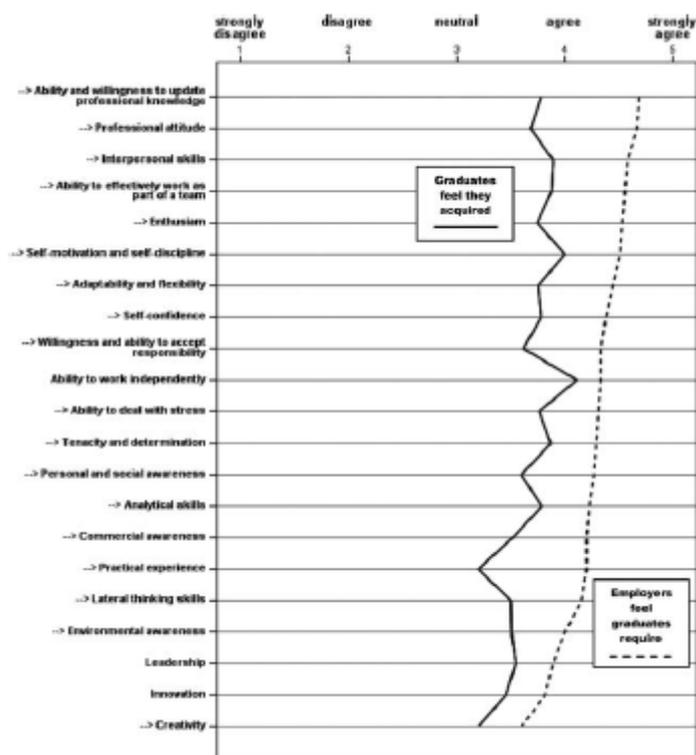


Note: --> Indicates a statistically significant difference ($p < 0.01$)

The questionnaire that was sent to employers contained the same 72 characteristics but the survey was made up of two parts. The first part asked them to agree/disagree with the statement "Graduates of real estate courses require (knowledge of/the following skills/the following attributes) . . ." for each of the 72 characteristics; the second part asked them to agree/disagree with the statement "Graduates of real estate courses currently demonstrate (knowledge of/the following skills/the following attributes) . . ." for each of the 72 characteristics. Again, text comment boxes were included, and participants were asked to state any additional knowledge, skills or attributes that they felt were important for graduates.

4.1.1 Questionnaire administration and data analysis. A database of graduate (RICS members qualified in the last five years and APC candidates) contact information was generously provided by the RICS Education and Qualification Standards Division. These individuals were targeted as it was hoped that their university experience would have been fairly recent, allowing them to provide valuable information about their experience. Invitations to participate in the survey were sent to 3,936 individuals, though 344 were undelivered, and 66 auto-replies informing that the person had left the company were received. Of the delivered invitations (3,526), the response rate was 18 per cent (639). Employer contact information was extracted from the RICS "Find a Surveyor" listing for several firm types (Commercial Property, Valuation, Residential Property, Planning and Development and Residential Surveys). There were 1,256 invitations sent out, though 58 were undeliverable. Of the delivered invitations (1,198) the response rate was 6.5 per cent (78), although 16 of these were responses stating that the questionnaire was not applicable (these employers stated they had little experience with recent graduates). This left 62 usable surveys. This low return rate may be attributable to the fact that there was no way to tell the size of firms or the number of employees, and many invited participants may have had little or no recent experience with graduates, making them less likely to participate.

Figure 5. Attributes: comparison of what employers feel graduates require and what graduates feel they acquired during their studies



Note: --> Indicates a statistically significant difference ($p < 0.01$)

4.2 Interviews with RICS accredited courses providers

The second stage of data collection was achieved by interviewing RICS accredited real estate courses providers. Five course directors of RICS accredited courses were interviewed. They were selected as these universities have long-standing reputations for delivering successful RICS accredited courses, at both the

postgraduate and undergraduate level. They consist of pre-92 and post 92 universities, are located in different geographical locations in the UK and some have a high proportion of international students on their courses. To provide a context for the survey, some background information was sought before starting the formal interview. These questions included:

- . What RICS accredited courses are running in your university?
- . How long have the courses been running?
- . How long have you been course leader?
- . What is the total number of students on these courses?
- . What is the number of part-time, full-time and sandwich students on your courses?

Then, the academics were shown three sets of charts. Each set of charts consists of three diagrams that focus on knowledge, skills and attributes respectively. The first set of charts compares what employers feel graduates require and what they feel graduates demonstrate. The second set of charts shows a comparison between what employers feel graduates require and what graduates feel they acquired during their studies. Please see Figures 3-5 for the second set of charts. The third set of charts shows the comparison of what employers feel graduates demonstrate and what graduates feel they acquired during their studies (To view the six charts not reproduced in this paper, readers are invited to contact the authors.) In addition, the academics were also shown the additional comments made by graduates and employers (please see Tables I and II for further information). The academics were invited to state their observations and opinions on the three sets of charts and the additional comments made by graduates and employers.

The data on “what employers feel graduates demonstrate” were collected by the same questionnaire for the survey aimed at investigating “what employers feel graduates require” which was discussed in Section 4.1. There were 34 respondents to this section of the questionnaire. The reason for a lower response rate for this section was that not all respondents have current experience of working with recent graduates therefore they are not in a position to answer this set of questions. The interviews were recorded, transcribed and coded and similar themes identified.

Table I. Top five knowledge, skills, and attributes rated by employers

Knowledge	Skills	Attributes
Valuation	Effective oral communication	Ability and willingness to update professional knowledge
Property law	Report writing	Professional attitude
Landlord and tenant law	Effective written communication	Interpersonal skills
Professional practice and ethics	Numeracy	Ability to effectively work as part of a team
Client care	Effective verbal presentation	Enthusiasm

Table II. Number of graduates who commented on each theme

	#
<i>Practical knowledge/experience</i>	
Practical knowledge/application/exercises/projects	94
Work experience/placement	56
<i>Knowledge</i>	
Commercial awareness/knowledge	29
Market knowledge	23
Valuation/Red Book	23
Negotiation	22
Construction/building techniques	18
General business	16
Law (L & T, property)	14
Leases	11
<i>People skills</i>	
Communication	17
Interpersonal skills	13
Networking	13
Presentation skills/speaking	11
<i>Programmes should provide information on</i>	
Careers options/advice/sectors	28
RICS/APC/qualification	18
<i>Technical skills needed</i>	
Excel/Software/IT	37
Report writing/writing	17
Measurement	10
<i>Attributes</i>	
Professionalism/manners/grace	14
<i>Other comments</i>	
Gained skills/attributes outside education	11

4.3 Interviews with human resource managers

Four human resource managers from different major surveying firms were interviewed. Human resource managers were interviewed because they are heavily involved in recruitment and development of graduates through the APC training. Therefore, it is believed that they are in position to comment on employers' expectations of graduates.

The four human resource managers are all London-based but they are working in different types of surveying firm. One of them is working in an international firm that has offices across the world, two of them are surveying firms which have offices in the UK and across Europe and the last human resource manager is working in a national estate agency firm.

As with the academics' interviews, the human resource managers were shown the three sets of charts and the additional comments made by graduates and employers and were also invited to comment on the findings of the questionnaire study.

5. Research findings and discussion

5.1 Questionnaire survey

The questionnaires used five-point Likert scales asking respondents to indicate their level of agreement to the importance of each of the characteristics (by the employers) and whether their courses facilitated the gaining of these (by the graduates). Figures 3-5 are profile analyses used to display both the ranking of the means of variables and the differences in emphasis by the two samples and significance testing has been carried out (using the non-parametric Mann-Whitney U test) to compare our two independent samples. There was a significant difference ($p < 0.01$) between what employers felt graduates required and what graduates felt they acquired for 21 of the knowledge areas (characteristics marked with "!" in Figures 3-5).

As will be seen, the top rated knowledge areas by both groups were "valuation" and "law" but there were quite divergent responses to the subjects of "ethics" and "client care". The lowest ranked knowledge area by both parties is "international real estate" and the only area where graduates feel that they exceed the expectations of employers is "research methods". It may be that the emphasis currently given to the traditional research dissertation by education providers is misplaced.

Results for skills and attributes were similar to those for knowledge. For many skills and attributes there again was a gap between what employers felt graduates required and what graduates felt they acquired from their programme. There was a significant difference ($p < 0.01$) for 18 of the skills (marked with "!" in Figure 4), all were rated higher on the Likert scale by employers than by graduates. For the attributes section there was a significant difference ($p < 0.01$) for 18 of the characteristics (marked with "!" in Figure 5), again all rated higher on the Likert scale by employers than by graduates.

The research methods result discussed above is reflected to some degree by the relatively low rating given to “research and analysis” in the skills comparison shown in Figure 4 (as will be seen both groups have similar opinions about the importance of this skill). The most important skills are in the area of communications and numeracy but the least valued (by both groups) is a second language. This skill is discussed further in Section 5.2. The attributes section of the surveys (Figure 5) suggests that the attributes most valued by employers are concerned with professionalism but relatively low emphasis is given to innovation and creativity. The low ranking of environmental awareness by both parties is rather surprising.

As can be seen from Figures 3-5, in all three areas “Knowledge, skills and attributes” graduates were less confident of what they required than the aggregate view expressed by employers. Graduates responses, taken independently show that many graduates feel that their programmes did not help them acquire the knowledge, skills and attributes suggested by what was thought to be a thorough listing of what real estate graduates should need.

Taken independently, employer responses show what knowledge areas, skills and attributes are seen as most important for real estate graduates. Most scored with a mean of 4 or above (12 knowledge areas, 17 skills and 18 attributes) demonstrating that employers feel most of these are important and necessary for graduates. The top five for each category are listed in order of importance in Table I.

Open-ended questions (comment fields) were analysed by reading all the comments, determining themes and subsequently coding comments. These comments were grouped under different themes and they were ranked in descending order based on the frequency. Please see Table II for the major themes from graduates’ responses. The items that stand out in the “knowledge” category are practical knowledge and work experience. Please see Table III for the additional comments from employers. As with the graduates’ opinions, employers think practical knowledge and experience are most important for graduates.

Practical knowledge and work experience are considered the most important aspects of graduates’ competency as they are the most frequently mentioned open comments by both employers and graduates. This is followed by the subject-related specialist knowledge. The employer respondents have such a high focus on specialist knowledge because they are practising surveyors and they value highly their professional knowledge. “People skills and other soft skills” are the next most mentioned aspects in the questionnaire survey. These results suggest that the surveying and real estate sector share the same views of graduates’ competencies as industry generally as reflected by the CIHE national survey on employers’ views on the requirements of graduates’ competencies (Archer and Davidson, 2008).

5.2 Interviews with RICS accredited courses providers

The interviewed RICS-accredited course providers were not surprised by the overall result of the questionnaire survey, which showed gaps between employers’ expectations and graduates requirement and the demonstration of knowledge, skills and attributes. The interviewees defended the existence of these gaps by saying that their graduates also require the training provided by employers in order to fully capture these knowledge, skills and attributes. There is still a learning curve for graduates after graduation as they still need to acquire practical knowledge in order to become qualified surveyors. This comment can be summarised by the Interviewee

Two’s observation that:

Graduates are not finished products [. . .] To become a surveyor is not only about obtaining a degree but it is also about gaining practical experience.

The RICS accredited course directors did not express surprise that graduates demonstrate low levels of client care. They commented that this is because graduates have not yet been fully exposed to the working environment. It may also be due to their young age, immaturity and lack of experience. In addition, the interviewees did not feel surprised that the graduates did not present a high level of leadership skills as they are in relatively junior positions in their organizations and new to their posts, therefore, they may not have the opportunity to demonstrate such skill. The relative inexperience of graduates also explains why employers perceived them as being over-confident or possibly arrogant. The graduates are new to the working environment and possibly may over-estimate their abilities.

All interviewed RICS accredited courses providers commented that graduates’ commercial awareness is of concern. As surveying professionals are working in a “business world”, graduates’ ability to realise commercial opportunities and obtain repeat business are important. The academic interviewees also agreed that soft skills, such as language and communication skills, are important for students’ employability. However they are not sure whether these soft skills should be extensively taught in university courses. Furthermore they anticipate

that if they dedicate more time and capacity to teaching soft skills, it could lead to conflict between employers and the RICS. Interviewee Two commented:

There is a conflicting demand between the RICS and employers. The RICS demands technical knowledge as the Assessment of Professional Competence (APC) candidates are assessed mainly on their technical competencies. On the other hand the employers have a very high demand for soft skills. If the universities want to teach students more soft skills, they need space in their syllabus which could reduce their capacity to deliver technical knowledge.

Table III. Number of employers who commented on each theme

	#
<i>Practical knowledge/experience</i>	
Need to seek experience	8
Input from professionals	1
<i>Specific knowledge</i>	
Construction techniques	4
Business/economic/commercial awareness	3
Negotiation/mediation/dispute/diplomacy	3
Valuation	2
Property policy/legislation awareness and compliance	2
Finance	2
Client care	2
Community/political trends	1
General knowledge of history/geography/politics	1
Inspection/measurement	1
RICS/codes of practice	1
Planning	1
<i>General skills</i>	
Writing skills	4
IT	3
Numeracy/arithmetic	3
Communication	3
Speaking/presentation skills	2
Reading	2
Driving license	2
Hand drawing	1
Telephone skills	1
Listening	1
Interpersonal skills	1
<i>Attributes</i>	
Willingness to learn/realise you do not know everything	4
Honesty/integrity	4
Realism/flexibility about what they will actually be doing on the job	3
Professional look/appearance	3
Enthusiasm/positive attitude	3
Common sense	3
Understand work environment/office procedure	2
Think under pressure	2
Cynicism	2
Thick skin	1
Enquiring mind	1
Motivation	1
Confidence	1
<i>Other comments</i>	
Lack of core skills/too early specification	1
For certain jobs need that "something" that cannot be taught	1

They are uncertain if it is the university's responsibility to "teach" attributes and consider that these are things that graduates either do or do not demonstrate. However, the interviewees insisted that they embed activities in their courses which aim to enhance students' attributes. Examples of these activities provided by interviewees are inter-disciplinary projects and group presentations.

The academic interviewees commented that employers should take some responsibility for helping students to gain practical experience, such as increasing placement and work experience opportunities. They pointed out that it is only the employers who can give students real-life practical experience although the universities do offer students simulated experience such as field trips and projects as supplements or alternatives to real-life practical experience.

The accredited RICS course providers give different weightings to the technical knowledge which depend on their institutional and technical backgrounds. For example, Interviewee One was surprised that international real estate was rated so low in the questionnaire survey because he is currently managing a course that has a

very high proportion of international graduate students. On the other hand, Interviewee Three has a strong focus on a second language as the targeted employers of the graduates from that course are the London-based international surveying firms. Interviewee Four was surprised that asset management was rated so low in the survey, even lower than taxation, having been an asset management surveyor prior to entering academia.

5.3 Interviews with human resource managers

Overall, the human resource managers were not surprised by the results of the questionnaire study. They feel that graduates are still in the process of learning so it is unavoidable that they demonstrate fewer competencies than employers expect. However, they have a few disagreements regarding the ranking of several of the knowledge, skills and attributes. They think property law should be higher as it is related to commercial awareness and also that professional practice and ethics, IT skills, report writing skills, written communication, numeracy and second language should be placed higher in the charts. As surveyors are required to write accurate, factual and succinct reports in the workplace, their writing skills differ from those of dissertation or academic writing skills. This comment further echoed the findings of some of CIHE's research. The human resource managers were also surprised by the survey finding that graduates do not recognise e-mails as a kind of formal communication. They also consider that client care should be placed in a much more important position. They commented that "the property sector is a people business"; therefore client satisfaction is very important.

Human resource managers emphasised the importance of commercial awareness for graduates. In their definition, commercial awareness can be characterised by an understanding of the bigger picture within which the whole business operates. However, concerns were raised that graduates are usually only interested in working in investment or finance departments which they see as the core services for real estate surveyors but are less interested in working in other departments. This reflects graduates' lack of a holistic view of the operation of the whole company. The human resource managers also commented that they do not see that there is a significant difference in commercial awareness between undergraduates and postgraduates applicants and subsequently employees.

The human resource managers also commented that motivation and creativity should be ranked more highly. This comment contrasts with the findings of the academic interviews and the questionnaire surveys. Motivation was specially emphasised by the estate agency company whose human resource manager commented that the primary quality that they are looking for in graduates is motivation:

[. . .] if the graduates have motivation, they will be determined and willing to take on any challenges.

On the other hand, the human resource managers also think that graduates' integrity and honesty are important qualities. Integrity and honesty are essential qualities for surveyors as they are the key ethical behaviours identified in the RICS Rules of Conduct for Members (RICS, 2010b) in which, of course, APC candidates are assessed.

The human resource managers shared some views with the interviewed academics. They agreed that leadership should have a lower ranking because graduates may not have the opportunity to demonstrate their leadership skills in their existing positions. The human resource managers were also surprised to see "willingness to accept responsibility" ranked so low. In their experience, the human resource managers find graduates as being very willing to accept responsibility and may, at times, be considered over-confident.

6. Conclusion

This paper presents the findings of questionnaire surveys of employers and graduates and of interviews with RICS-accredited courses providers and human resource managers. The research has found a clear gap between what employers expect of graduates and what graduates feel they attained in their education. The comments from the questionnaire survey suggest that both employers and graduates would like to see a more practical skills and knowledge incorporated within university curricula. The RICS accredited course providers commented that the employers need to play their part by giving graduates more opportunities to gain practical experience, such as by offering placement opportunities. However the course providers say that they are contributing to employability by offering simulated practical experience to students, such as field trips and site visits. On the other hand, human resource managers of surveying firms voiced concern about graduates' lack of commercial awareness. They think it is important for graduates to be commercially aware as the real estate sector is part of the broader economy, therefore it is important to understand the whole picture when providing services for clients from a property perspective.

The gap between employer expectations and graduates perceived acquisition is perhaps not surprising. The professional service firm employers naturally demand high levels of knowledge and commitment from their staff in order to satisfy their clients. The interviews with human resource managers confirm this view. Graduates surveyed in the workplace are less likely to be confident that they have achieved these characteristics as part of their university studies. What is really important of course is that university real estate course providers endeavour to meet the needs of the employers of their graduates and the authors hope that this research will be useful in enabling universities in the UK and further afield to achieve this.

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Corresponding author

Joanna Poon can be contacted at: Joanna.poon@ntu.ac.uk